

# **STATE OF MISSISSIPPI HAZARDOUS WASTE MANAGEMENT PERMIT**

## **THIS CERTIFIES THAT**

Safety-Kleen Systems, Inc.  
Jackson Facility  
Hinds County  
MSD000776765

is hereby authorized to operate Hazardous Waste Management Treatment and Storage Units. This permit is issued under the authority of the Mississippi Solid Wastes Disposal Law, and particularly Section 17-17-27 thereof, and rules adopted and promulgated thereunder, all of which authorize the Department of Environmental Quality to enforce all applicable requirements, under the Mississippi Hazardous Waste Management Regulations, and associated conditions included therein.

Permit Issued: AUG 31 2012

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**



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**AUTHORIZED SIGNATURE**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

Expires: August 30, 2022

Permit No.: MSD000776765

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## **Attachments**

### **PERMIT ATTACHMENTS REFERENCED IN MODULE II. -GENERAL FACILITY CONDITIONS**

Permit Attachment No.	Plan or Document (from the Part B Permit Application)
II-1	Waste Analysis Plan
II-2	Security Plan
II-3	Inspection Schedule
II-4	Personnel Training Outline
II-5	Procedures for Handling ignitable, Reactive, or Incompatible Waste
II-6	Location Standards
II-7	Contingency Plan
II-8	Closure Plan

### **PERMIT ATTACHMENTS REFERENCED MODULE III. -CONTAINERS**

Permit Attachment No.	Plan or Document (from the Part B Permit Application)
III-1	Secondary Containment Plans and Specifications
II-5	Ignitable or Reactive Waste Procedures
III-2	Incompatible Waste Procedures

### **PERMIT ATTACHMENTS REFERENCED MODULE IV. -TANKS**

Permit Attachment No.	Plan or Document (from the Part B Permit Application)
II-3	Facility Inspection Schedule
II-8	Closure Plan
IV-1	Procedures for preventing spills and overflows from the tanks or containment systems

## **MODULE I. - GENERAL PERMIT CONDITIONS**

### **I.A. EFFECT OF PERMIT**

The Permittee is allowed to store hazardous waste in accordance with the conditions of this Permit. Any storage of hazardous waste not authorized in this Permit is prohibited. Subject to MSHWM REG 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment. [MSHWM REG 270.4, 270.30(g)]

### **I.B. PERMIT ACTIONS**

#### **I.B.1. Permit Modification, Revocation and Reissuance, and Termination**

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in MSHWM REG 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition. [MSHWM REG 270.4(a) and 270.30(f)]

#### **I.B.2. Permit Renewal**

This Permit may be renewed as specified in MSHWM REG 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [MSHWM REG 270.30(b), HSWA Sec. 212]

### **I.C. SEVERABILITY**

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [MSHWM REG 124.16(a)]

### **I.D. DEFINITIONS**

For purposes of this Permit, terms used herein shall have the same meaning as those in MSHWM REGs 124, 260, 264, 266, 268, and 270, unless this Permit specifically

provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

- I.D.1. "Corrective Action" for the purposes of this permit, may include "corrective action" as provided in MSHWM REG 264.100.
- I.D.2. "Director" means the Executive Director of the Mississippi Department of Environmental Quality, or his designee or authorized representative.
- I.D.3. "Hazardous constituent" for purposes of this permit are those substances listed in MHWM Reg Part 261 Appendix VIII and Part 264 Appendix IX.
- I.D.4. "Land Disposal" for purposes of this permit and MHWMR Part 268 means placement in or on the land except for a CAMU and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.
- I.D.5. A "release" for purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.
- I.D.6. A "Miscellaneous Unit" for the purposes of this permit means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under MHWMR part 146, containment building, corrective action management unit, or unit eligible for research, development, and demonstration permit under 270.65
- I.D.7. A "unit" for the purposes of this permit includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, wastewater treatment unit, elementary neutralization unit, transfer station, or recycling unit.

#### I.E. DUTIES AND REQUIREMENTS

##### I.E.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [MSHWM REG 270.30(a)]

I.E.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. [MSHWM REG 270.10(h), 270.30(b)]

I.E.3. Permit Expiration

Pursuant to MSHWM REG 270.50, this Permit shall be effective for a fixed term not to exceed ten years. As long as MDEQ is the Permit-issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see MSHWM REG 270.10, 270.13 through 270.29) and, through no fault of the Permittee, the Executive Director has not issued a new Permit, as set forth in MSHWM REG 270.51.

I.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit. [MSHWM REG 270.30(c)]

I.E.5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment. [MSHWM REG 270.30(d)]

I.E.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [MSHWM REG 270.30(e)]

I.E.7. Duty to Provide Information

The Permittee shall furnish to the Executive Director, within a reasonable time, any relevant information which the Executive Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Executive Director, upon request, copies of



records required to be kept by this Permit. [MSHWM REG 264.74(a), 270.30(h)]

I.E.8. Inspection and Entry

Pursuant to MSHWM REG 270.30(i), the Permittee shall allow the Executive Director, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

- a. Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.E.9. Monitoring and Records

The Director may require such testing by the Permittee, and may make such modifications to this permit, deemed necessary to ensure implementation of new regulations or requirements, or to ensure protection of human health and the environment.

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of MSHWM REG 261 or an equivalent method approved by the Executive Director. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in the Waste Analysis Plan (See Permit Attachment II-1). [MSHWM REG 270.30(j)(1)]
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by MSHWM REG 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Director at any time and are

automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations for the active life of the facility, and for disposal facilities for the post-closure care period as well. [MSHWM REG 264.74(b) and 270.30(j)(2)]

- c. Pursuant to MSHWM REG 270.30(j)(3), records of monitoring information shall specify:
  - (i) The dates, exact place, and times of sampling or measurements;
  - (ii) The individuals who performed the sampling or measurements;
  - (iii) The dates analyses were performed;
  - (iv) The individuals who performed the analyses;
  - (v) The analytical techniques or methods used; and
  - (vi) The results of such analyses.

I.E.10. Reporting Planned Changes

The Permittee shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the Permitted facility. [MSHWM REG 270.30(l)(1)]

I.E.11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Executive Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [MSHWM REG 270.30(l)(2)]

I.E.12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Executive Director. The Executive Director may require modification or revocation and reissuance of the Permit pursuant to MSHWM REG 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of MSHWM REGs 264 and 270 and this Permit. [MSHWM REG 270.30(l)(3), 264.12(c)]

I.E.13. Twenty-Four Hour Reporting

- a. The Permittee shall report to the Director any noncompliance which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:
  - (i) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
  - (ii) Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility.
- b. The description of the occurrence and its cause shall include:
  - (i) Name, address, and telephone number of the owner or operator;
  - (ii) Name, address, and telephone number of the facility;
  - (iii) Date, time, and type of incident;
  - (iv) Name and quantity of materials involved;
  - (v) The extent of injuries, if any;
  - (vi) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
  - (vii) Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The Executive Director may waive the five-day written notice requirement in favor of a written report within 15 days. [MSHWM REG 270.30(l)(6)]

I.E.14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.10. - I.E.14. , at the time

monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E.13. [MSHWM REG 270.30(l)(10)]

I.E.15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Director, the Permittee shall promptly submit such facts or information. [MSHWM REG 270.30(l)(11)]

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Executive Director, his designee, or authorized representative, shall be signed and certified in accordance with MSHWM REG 270.11 and 270.30(k).

I.G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE REGIONAL ADMINISTRATOR

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Director should be sent by certified mail or given to:

Environmental Permits Division, Chief  
Mississippi Office of Pollution Control  
P. O. Box 2261  
Jackson, MS 39225

I.H. CONFIDENTIAL INFORMATION

In accordance with MSHWM REG 270.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I.I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

- I.I.1. Waste Analysis Plan, as required by MSHWM REG 264.13 and this Permit.
- I.I.2. Inspection schedules, as required by MSHWM REG 264.15(b)(2) and this Permit.
- I.I.3. Personnel training documents and records, as required by MSHWM REG264.16(d) and this Permit.
- I.I.4. Contingency Plan, as required by MSHWM REG 264.53(a) and this Permit.
- I.I.5. Operating record, as required by MSHWM REG 264.73 and this Permit.
- I.I.6. Closure Plan, as required by MSHWM REG 264.112(a) and this Permit.
- I.I.7. Annually-adjusted cost estimate for facility closure, as required by MSHWM REG 264.142(d) and this Permit.
- I.I.8. All other documents required by Module I, Permit Condition I.E.9. .

## **MODULE II. - GENERAL FACILITY CONDITIONS**

### **II.A. DESIGN AND OPERATION OF FACILITY**

The Permittee shall construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or nonsudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by MSHWM REG 264.31.

### **II.B. REQUIRED NOTICES**

#### **II.B.1. Hazardous Waste Imports**

The Permittee may not receive hazardous waste from a foreign source.

#### **II.B.2. Hazardous Waste from Off-Site Sources**

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), he must inform the generator in writing that he has the appropriate Permits, and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record. [MSHWM REG 264.12(b)]

### **II.C. GENERAL WASTE ANALYSIS**

The Permittee shall follow the waste analysis procedures required by MSHWM REG 264.13, as described in the attached Waste Analysis Plan, Permit Attachment II-1.

The Permittee shall verify the analysis of each waste stream annually as part of its quality assurance program, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Regional Administrator. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

### **II.D. SECURITY**

The Permittee shall comply with the security provisions of MSHWM REG 264.14(b)(2) and (c) and Permit Attachment II-2.

### **II.E. GENERAL INSPECTION REQUIREMENTS**

The Permittee shall follow the inspection schedule set out in Permit Attachment II-3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by MSHWM REG 264.15(c). Records of inspection shall be kept, as required by MSHWM REG 264.15(d).

## II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by MSHWM REG 264.16. This training program shall follow the attached outline, Permit Attachment II-4. The Permittee shall maintain training documents and records, as required by MSHWM REG 264.16(d) and (e).

## II.G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of MSHWM REG 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment II-5.

## II.H. LOCATION STANDARDS

The Permittee shall operate, and maintain the facility to prevent washout of any hazardous waste by a 100-year flood, as required by MSHWM REG 264.18(b)(1) and as specified in the attached plans and specifications, Permit Attachment II-6.

## II.I. PREPAREDNESS AND PREVENTION

### II.I.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment II-8, as required by MSHWM REG 264.32.

### II.I.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.I.1. , as necessary, to assure its proper operation in time of emergency, as required by MSHWM REG 264.33.

### II.I.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by MSHWM REG 264.34.

### II.I.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by MSHWM REG 264.35 and the attached plans and specifications, Permit Attachment II-7.

### II.I.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by MSHWM REG 264.37. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

## II.J. CONTINGENCY PLAN

### II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan, Permit Attachment II-7, whenever there is a fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment.

### II.J.2. Copies of Plan

The Permittee shall maintain a copy of the Contingency Plan at the facility and shall provide a copy to all police departments, fire departments, hospitals, and State and local emergency response teams that may be asked to provide emergency assistance, as required by MSHWM REG 264.53.

### II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by MSHWM REG 264.54.

### II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by MSHWM REG 264.55.

The names, addresses, and phone numbers of all persons qualified to act as emergency coordinators shall be supplied to the Director at the time of certification. [MSHWM REG 264.52(d)].

## II.K. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of MSHWM REG 264.71, 264.72, and 264.76.

## II.L. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

### II.L.1. Operating Record

The Permittee shall maintain a written operating record at the facility, in accordance with MSHWM REG 264.73.

### II.L.2. Annual Report

The Permittee shall comply with the biennial reporting requirements of MSHWM REG 264.S1.



## II.M. GENERAL CLOSURE REQUIREMENTS

### II.M.1. Performance Standard

The Permittee shall close the facility, as required by MSHWM REG 264.111 and in accordance with the Closure Plan, Permit Attachment II-8.

### II.M.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with MSHWM REG 264.112(c), whenever necessary.

### II.M.3. Notification of Closure

The Permittee shall notify the Regional Administrator in writing at least 45 days prior to the date on which he expects to begin final closure of the facility, as required by MSHWM REG 264.112(d).

### II.M.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or dispose of on site all hazardous waste and shall complete closure activities, in accordance with MSHWM REG 264.113 and the schedules specified in the Closure Plan, Permit Attachment II-9.

### II.M.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by MSHWM REG 264.114 and the Closure Plan, Permit Attachment II-8.

### II.M.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by MSHWM REG 264.115.

### II.M.7. Survey Plat

The Permittee shall submit a survey plat no later than the submission of certification of closure of each hazardous waste disposal unit, in accordance with MSHWM REG 264.116.

## II.N. COST ESTIMATE FOR FACILITY CLOSURE

- II.N.1. The Permittee's most recent closure cost estimate, prepared in accordance with MSHWM REG 264.142 is specified in Permit Attachment II-8.
- II.N.2. The Permittee must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with MSHWM REG 264.143 and Permit Condition II.O.  
[MSHWM REG 264.142(b)]
- II.N.3. The Permittee must revise the closure cost estimate whenever there is a change in the facility's Closure Plan, as required by MSHWM REG 264.142(c).
- II.N.4. The Permittee must keep at the facility the latest closure cost estimate as required by MSHWM REG 264.142(d).

## II.O. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittee shall demonstrate continuous compliance with MSHWM REG 264.143 by providing documentation of financial assurance, as required by MSHWM REG 264.151, in at least the amount of the cost estimates required by Permit Condition II.N. Changes in financial assurance mechanisms must be approved by the Director pursuant to MSHWM REG 264.143.

## II.P. LIABILITY REQUIREMENTS

The Permittee shall demonstrate continuous compliance with the requirement of MSHWM REG 264.147(a) to have and maintain liability coverage for sudden and accidental occurrences in the amount of at least \$1 million per occurrence, with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

## II.Q. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with MSHWM REG 264.148, whenever necessary.

## MODULE III. - CONTAINERS

### III.A. MODULE HIGHLIGHTS

Two container storage units will be used to store hazardous wastes. The container storage warehouse area will accumulate up to a maximum of 4,464 gallons of spent immersion cleaner and dry cleaning wastes. The container storage flammable storage shelter will store up to a maximum of 2,184 gallons of paint wastes and dumpster sediments.

Secondary containment for the storage area warehouse center is calculated to be 538 gallons. Secondary containment for the container storage flammable storage shelter is calculated to be 1,119 gallons.

Containers used in the storage areas are 16, 30, 55 and 85 gallon drums; also some wastes are containerized in boxes and 5 gallon pails.

### III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1. The Permittee may store the following wastes in containers at the facility, subject to the terms of this Permit and as follows:

Description of Hazardous Waste	EPA Hazardous Waste Number	Capacity	Secondary Containment
<b><u>Container Storage Warehouse</u></b>			
Spent Immersion Cleaner	F002, F004, D001, D004	4,464	538 gallons
Dry Cleaning Wastes	thru D011, D018, D019,	gallons	
Spent Antifreeze	D021 thru D030, D032		
Loading Unit Sediment	thru D043		
Metal Halide Light Bulbs			
Parts Washer Wastes			
<b><u>Container Storage Flammable Storage Shelter</u></b>			
Paint Wastes	F003, F005, D001, D004	2,184	1,119 gallons
Loading Unit Sediment	thru D011, D018, D019,	gallons	
	D021 thru D020, D032		
	thru D043		

III.B.2. The Permittee is prohibited from storing or treating hazardous waste that is not identified in Permit Condition III.B.1.

III.B.3. All containers used to contain hazardous waste shall control air pollutant emissions from each container in accordance with MHWMR 264 Subpart CC. Pursuant to MHWMR 264.1086, all hazardous waste containers shall meet the appropriate container control, based on container capacity, of Container Level 1, Container Level 2 or Container Level 3 standards.

### III.C. CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the

hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit. [MHWMR 264.171]

#### III.D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired, as required. [MHWMR 264.172]

#### III.E. MANAGEMENT OF CONTAINERS

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak. [MHWMR 264.173]

#### III.F. CONTAINMENT SYSTEMS

The Permittee shall maintain the containment system in accordance with the attached plans and specifications, contained in Permit Attachment III-1. [MHWMR 264.175]

#### III.G. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the container area weekly, in accordance with the Inspection Schedule, Permit Attachment II-3, to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors. [MHWMR 264.174]

#### III.H. RECORDKEEPING

The Permittee shall place the results of all waste analyses and trial tests and any other documentation showing compliance with the requirements of Permit Conditions III.K.1. and III.K.2. and MHWMR 264.17(b) and 264.177 in the facility operating record. [MHWMR 264.73]

#### III.I. CLOSURE

At closure of the container area, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system, in accordance with the procedures in the Closure Plan, Permit Attachment II-8. [MHWMR 264.178]

III.J. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

- III.J.1. The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. [MHWMR 264.176]
- III.J.2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures specified in Permit Attachment II-5. [MHWMR 264.17(a) and 264.176]
- III.J.3. Containers of ignitable and reactive wastes shall be stacked no more than two high, in order to comply with the National Fire Protection Association's Flammable and Combustible Liquids Code.

III.K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

- III.K.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container. [40 CFR 264.177(a)]
- III.K.2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. [MHWMR 264.177(b)]
- III.K.3. The Permittee shall separate containers of incompatible wastes. [MHWMR 264.177(c)]

## MODULE IV. -TANKS

### IV.A. MODULE HIGHLIGHTS

Two horizontal above ground storage tanks are used to store a maximum of 8,000 gallons and 4,000 gallons of spent parts washer wastes. Material is pumped to these tanks from the loading units located in the return and fill station. The loading units are ancillary equipment of the hazardous waste tanks. Secondary containment consists of a steel reinforced concrete dike which holds approximately 21,449 gallons. Two tanks holding approximately 8,000 and 4,000 gallons of product are also in the containment area.

The spent washer waste is accumulated in the tank via the return and fill station. Each tank is equipped with an emergency waste feed cut-off valve and high level alarm.

### IV.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

IV.B.1. The Permittee may store a total volume of 12,000 gallons of hazardous waste in tanks two tanks, subject to the terms of this Permit and as follows:

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No
Tank #1	8,000	8 ft(diam) x 21 ft			D001, D002, D004 thru D011, D018,
Tank #2	4,000	8 ft(diam) x 10 ft 10 in	yes-in place	Parts Washer Waste	D019, D021 thru D030, D032 thru D043, F002 thru F005

IV.B.2. The Permittee is prohibited from storing or treating hazardous waste that is not identified in Permit Condition IV.B.1. .

### IV.C. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

IV.C.1. For tank systems used to store or treat materials that are defined as hazardous waste in the future, the Permittee must obtain a written assessment of the existing tank system integrity within 12 months from the date the waste is defined as hazardous. [40 CFR 264.191(c)] The assessment shall be certified by an independent, qualified, registered professional engineer. [MHWMR 264.191(a) and (b)]

IV.C.2. The Permittee shall design, construct, and operate the secondary containment system, in accordance with the detailed design plans and descriptions contained in Permit Attachment III-1. [MHWMR 264.193(b)-(f)]

#### IV.D. OPERATING REQUIREMENTS

- IV.D.1. The Permittee shall not place hazardous wastes or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. [MHWMR 264.194(a)]
- IV.D.2. The Permittee shall prevent spills and overflows from the tank or containment systems using the methods described in Permit Attachment IV-1. [MHWMR 264.194(b)]

#### IV.E. RESPONSE TO LEAKS OR SPILLS

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions: [MHWMR 264.196(a)-(f)]

- IV.E.1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.
- IV.E.2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Regional Administrator and demonstrate that the longer time period is required.

If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of MHWMR Parts 262-264. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.

- IV.E.3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection:
  - a. prevent further migration of the leak or spill to soils or surface water and
  - b. remove and properly dispose of any visible contamination of the soil or surface water.
- IV.E.4. Close the system in accordance with the Closure Plan, Permit Attachment II-8, unless the following actions are taken:
  - a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any

necessary repairs to fully restore the integrity of the system before returning the tank system to service.

- b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.
- c. For a release to the environment caused by a leak from the aboveground portion of the tank system that does not have secondary containment, and can be visually inspected, the Permittee shall repair the tank system before returning it to service.
- d. For a release to the environment caused by a leak from the portion of the tank system component that is not readily available for visual inspection, the Permittee shall provide secondary containment that meets the requirements of MHWMR 264.193 before the component can be returned to service.
- e. If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in MHWMR 264.192 and MHWMR 264.193.

IV.E.5. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

#### IV.F. INSPECTION SCHEDULES AND PROCEDURES

IV.F.1. The Permittee shall inspect the tank systems, in accordance with the Inspection Schedule, Permit Attachment II-3, and shall complete the items in Permit Conditions IV.F.2. and IV.F.3. as part of those inspections:

IV.F.2. The Permittee shall inspect the overfill controls, in accordance with the schedule in Permit Attachment II-3. [MHWMR 264.195(a)]

IV.F.3. The Permittee shall inspect the following components of the tank system once each operating day: [MHWMR 264.195(b)]

- a. Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
- b. Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design;



- c. Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

IV.F.4. The Permittee shall document compliance with Permit Conditions IV.F.2. and IV.F.3. and place this documentation in the operating record for the facility. [MHWMR 264.195(d)]

#### IV.G. RECORDKEEPING AND REPORTING

IV.G.1. The Permittee shall report to the Director, within 24 hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. [MHWMR 264.196(d)(1)] A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported. [MHWMR 264.196(d)(2)] Releases that are contained within a secondary containment system need not be reported. If the Permittee has reported the release pursuant to 40 CFR Part 302, this report satisfies the requirements of this Permit Condition. [MHWMR 264.196(d)(1)]

IV.G.2. Within 30 days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Director: [MHWMR 264.196(d)(3)]

- a. Likely route of migration of the release;
- b. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
- c. Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Regional Administrator with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
- d. Proximity of downgradient drinking water, surface water, and populated areas; and
- e. Description of response actions taken or planned.

IV.G.3. The Permittee shall submit to the Director all certifications of major repairs to correct leaks within seven days from returning the tank system to use. [MHWMR 264.196(f)]

IV.G.4. The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system. [MHWMR 264.192(g)]

#### IV.H. CLOSURE AND POST-CLOSURE CARE

- IV.H.1. At closure of the tank system(s), the Permittee shall follow the procedures in the Closure Plan, Permit Attachment II-8. [MHWMR 264.197(a)]
- IV.H.2. If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan, then the Permittee shall close the tank system(s) and perform post-closure care. [MHWMR 264.197(b) and (c)]

#### IV.I. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

- IV.I.1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system, unless:
- a. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:
    - (i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under MHWMR 261.21 or 261.23, and
    - (ii) Precautions are taken that prevent reactions which generate extreme heat or pressure, fire or explosions, or violent reactions; produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; damage the structural integrity of the device or facility; through other like means threaten human health or the environment.[MHWMR 264.17(b)]

- b. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or
- c. The tank system is used solely for emergencies. [40 CFR 264.198(a)]

IV.I.2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981). [MHWMR 264.198(b)]

IV.J. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

IV.J.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system or the same secondary containment system. [MHWMR 264.199(a)]

## MODULE V. - MISCELLANEOUS UNITS MANAGEMENT PRACTICES

### V.A. DESCRIPTION OF MISCELLANEOUS UNIT

The Return and Fill unit is designed to allow employees to empty drums of spent solvent into a vessel, rinse the drums via a spray system with spent solvent pumped from the vessel, and then refill the drums with clean recycled or virgin solvent product. As designed and used, the Return and Fill unit is a means to effectively convey the contents of a used solvent drum to the on-site storage tank or tank truck. The Return and Fill unit is not designed to contain an accumulation of hazardous waste.

The Return and Fill drum washing stations are square metal boxes about as large as two 55 gallon drums that open like a clam shell. Each unit is equipped with a sump with a maximum design capacity of 25 gallons, a maximum working capacity of 19 gallons and is connected by piping to adjacent permitted Hazardous Waste Storage Tanks. When in operation the drum washers holds two drums, one for washing and one for drying. Both drum washers are open to the atmosphere and are enclosed in an open sided shed. Secondary containment is provided under the unit through a series of containment pans six inches deep. The Dumpster/Drum Washing Stations are closed when not in use, although the seal is not at present gasketed.

The waste solvent used by Safety Kleen has a very low vapor pressure, 4-10 mm Hg. Thus, it is well below the MHWMR Part 264 Subpart CC Tank Level 1 Vapor Pressure Limit of 570 mm Hg for tanks < 75 m3. It is not in "light material service." However, the waste contains volatile organic hazardous waste concentrations greater than 500 ppm. Thus, the hazardous waste managed in these units meets the 'applicability standards' for regulation under Subpart CC of RCRA.

The Permittee shall treat only those wastes which are compatible with the construction material of the miscellaneous unit(s) and are listed in the facility's waste analysis report, or included in or referenced in the facility's permit application.

### V.B. DESIGN OF MISCELLANEOUS UNIT

The Permittee shall maintain the miscellaneous unit in accordance with MHWMR Part 264.601, the terms of this permit and as follows:

Unit Name	Capacity (Gallons per Day)	Dumpster Volume (gallons)	Secondary Containment (gallons)	Description of Hazardous Waste	Hazardous Waste No
Return and Fill	12,000	3 at 374 gal each	1,309	Parts Washer Waste	D001, D002, D004 thru D011, D018, D019, D021 thru D030, D032 thru D043, F002 thru F005

V.C. DESIGN AND INSTALLATION OF NEW MISCELLANEOUS SYSTEMS OR COMPONENTS

- V.C.1. Prior to placing a new miscellaneous system or component (i.e., miscellaneous unit, secondary containment, etc.) in use, the Permittee shall request a modification to its existing permit per MHWMR 270.42.
- V.C.2. Prior to placing the miscellaneous system in use, the Permittee shall have an independent, qualified professional engineer registered in the State of Mississippi, or an independent qualified installation inspector (either of whom are trained and experienced in the proper installation of such systems) inspect the miscellaneous system to assess the adequacy of construction.
- V.C.3. The Permittee shall test all miscellaneous units and components for tightness and proper functioning prior to placing these systems in use in accordance with the requirements of MHWMR Part 264 Subpart CC. Reference Method 21 in MHWMR Part 60 about all joints, seals, seams, connectors, pumps, valves or other equipment ancillary to the unit. An instrument reading of 10,000 ppm or greater shall constitute detection of a leak. If a miscellaneous unit or its components are found not to be tight or functioning properly, all repairs necessary to remedy the problem in the system must be performed prior to the unit being placed in use.

V.D. OPERATING REQUIREMENTS

- V.D.1. The Permittee shall comply with all the operating requirements set forth under MHWMR Part 264 Subpart X and those Special requirements set forth below and in the EPA's Subpart CC permit module:
  - a. Operators in close contact with the unit shall comply with any applicable OSHA regulations and procedures in the on-site Health and Safety Plan.
  - b. The Permittee shall manage the secondary containment systems for each of the miscellaneous units specified in Permit Condition V.B. Standing free liquid shall be removed from the secondary containment underneath the unit at the end of each shift, each processing batch, or every 12 hours, whichever occurs first. Absorbents and other spill containment materials shall be changed when contaminated.

V.E. INSPECTIONS

- V.E.1. The Permittee shall inspect the miscellaneous unit each working day for malfunctions and deteriorations, operator errors, and discharges which may be causing or may lead to a release of hazardous waste constituents to the environment or a threat to human health.
- V.E.2. The Permittee must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the

problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

- V.E.3. The Permittee must record inspections in an inspection log or summary. These records must be kept for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

V.F. CONTAINMENT

The Permittee shall maintain the containment system as specified in the facility's Part B Permit Application. The Permittee shall ensure that the containment system for each miscellaneous unit is free of cracks/gaps and is sufficiently impervious to contain leaks, spills, and organic vapors. The Permittee shall ensure that the piping, pumps, sumps and other associated components of the miscellaneous systems have spill protection/prevention means and are fully operational at all times and comply with all applicable regulations under MHWMR 264 subpart AA and BB.

V.G. SPECIAL REQUIREMENTS FOR IGNITABLE, REACTIVE OR INCOMPATIBLE WASTE

The miscellaneous unit shall not be allowed to handle water reactive wastes. When managing ignitable, reactive, or incompatible wastes in any of the miscellaneous units, the Permittee shall comply with the requirements of MHWMR Part 264.17.

V.H. CLOSURE AND POST CLOSURE CARE

At closure of the miscellaneous unit, the Permittee shall follow the procedures in the Closure Plan, Permit Attachment II-8. [MHWMR 264.197(a)]

If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan, then the Permittee shall close the miscellaneous unit and perform post-closure care following the contingent procedures in the Closure Plan, Permit Attachment II-8. [MHWMR 264.197(b) and (c) and MHWMR 264.603]

## **MODULE VI. -WASTE MINIMIZATION**

### **VI.A. GENERAL RESTRICTIONS**

In the event that the Permittee treats, stores, or disposes of hazardous wastes onsite where such wastes were generated, then the Permittee must comply with MHWMR 264.73(b)(9), and Section 3005(h) of RCRA (42 U.S.C. 6925(h)), and the Permittee must certify, no less often than annually, that:

- VI.A.1. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and
- VI.A.2. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment.

### **VI.B. RECORDING REQUIREMENTS**

If Condition VI.A. is applicable, then the Permittee shall maintain copies of this certification in the facility operating record as required by MHWMR 264.73(b)(9).

### **VI.C. WASTE MINIMIZATION OBJECTIVES**

If Condition VI.A. is applicable, then the Waste Minimization program required under Condition VI.A. should address the objectives listed in Appendix G.

## **MODULE VII. - LAND DISPOSAL RESTRICTIONS**

### **VII.A. GENERAL RESTRICTIONS**

- VII.A.1. MHWMR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of MHWMR Part 268. Where the Permittee has applied for an extension, waiver or variance under MHWMR Part 268, the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

### **VII.B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS**

- VII.B.1. A restricted waste identified in MHWMR Part 268 Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of MHWMR Part 268 Subparts C and/or D are met.
- VII.B.2. The storage of hazardous wastes restricted from land disposal under MHWMR Part 268 is prohibited unless the requirements of MHWMR Part 268 Subpart E are met.



## **MODULE VIII. - RCRA ORGANIC AIR EMISSION REQUIREMENTS**

### **VIII.A. APPLICABILITY**

VIII.A.1. Subpart CC applies to all tanks, containers, and miscellaneous units identified in Appendix K, Table A-2, and in the State RCRA permit, except as provided for in MHWMR 264.1 and 264.1080(b).

The Conditions of this Part apply to

VIII.A.2. Hazardous waste management units identified in Appendix K, for which required control equipment has been installed and is operational or are exempt from Subpart CC standards under 264.1082(c)

### **VIII.B. EMISSION CONTROL TECHNOLOGY**

The Permittee shall install and maintain all regulated units and associated emission control technology in accordance with the detailed plans, schedules, information and reports as contained in the Part B Permit Application dated January 25, 1999 and subsequent responses to NODs

### **VIII.C. GENERAL ORGANIC AIR EMISSION STANDARDS FOR MISCELLANEOUS UNITS**

The Permittee maintains one hazardous waste management miscellaneous unit, the Return/Fill Dumpster/Washing Unit. This unit, at the time of this permit's issuance, is under consideration at a national level by the US Environmental Protection Agency and the states. The Agency and states are considering the operations and threats to human health and the environment that these Return/Fill Dumpster/Washing Units might pose and what controls these units might require to ensure protection of health and environment.

The Agency, based on current information, determines the conditions on the use of the Return/Fill Dumpster/Washing Unit contained in VIII.C. of this Permit to be fully protective. If future determinations are made by the Agency that more stringent requirements and permit conditions are required for this unit, an immediate modification of this permit will be initiated to incorporate the Agency's recommended restrictions upon the use of this unit

VIII.C.1. While not in operation, the Return/Fill Dumpster/Washing Unit sump shall contain not more than two (2) inches in depth of hazardous waste, the minimum volume necessary to prime the pump. This unit shall be deemed not in service during periods of time between each shift, between each processing batch, or at any time the unit is left unattended for 15 minutes or longer

- VIII.C.2. When not in operation, the Return/Fill Dumpster/Washing Unit cover shall be maintained in the closed position and the junction of the upper and lower halves of the clam-shell lid shall be tightly fitted and gasketed if needed in order to ensure that no organic vapor leaks are occurring as defined in Condition VIII.C.3. below. The entire unit shall be maintained in a manner that minimizes volatilization of organic compounds from hazardous wastes or hazardous constituents to the air per Section 3004(n) of the Solid Waste Disposal Act
- VIII.C.3. The facility shall monitor for leaks in accordance with the procedures of Reference Method 21 in MHWMR Part 60 each year, about all joints, seals, seams, connectors, pumps, valves or other equipment ancillary to this unit. An instrument reading of 10,000 ppm or greater shall constitute detection of a leak
- VIII.C.4. If a leak is detected, the facility shall attempt repair within 5 days of detection and repair in accordance with the MHWMR 264.1084(k)(1)
- VIII.C.5. Records of the design, monitoring and repair of the Return/Fill Dumpster/Washing Unit shall be maintained in the on-site facility operating records for three (3) years.

#### VIII.D. REPORTING REQUIREMENTS

- VIII.D.1. For each tank, container, miscellaneous unit or surface impoundment which manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Regional Administrator within fifteen (15) days of each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the Conditions of MHWMR 264.1082(c)(1) or (c)(2), as applicable. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance
- VIII.D.2. For tanks listed in Conditions VIII.A.2., which use air emission controls in accordance with the requirements MHWMR 264.1084(c), a written report shall be submitted to the Regional Administrator within fifteen (15) days of each occurrence when hazardous waste is managed in the tank in noncompliance with the Conditions specified in MHWMR 264.1084(c)(1) through (c)(4). The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance
- VIII.D.3. For control devices used in accordance with the requirements of MHWMR 264.1087, a semiannual written report shall be submitted to the Regional Administrator except as provided for in Condition VIII.D.4. of this Part. The

report shall describe each occurrence during the previous 6-month period when a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in MHWMR 264.1035(c)(4) or when a flare is operated with visible emissions as defined in MHWMR 264.1033(d). The written report shall include the EPA identification number, facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance

VIII.D.4. A report to the Regional Administrator in accordance with the requirements of Condition VIII.D.3. of this Part is not required for a 6-month period during which all control devices subject to MHWMR Part 264, Subpart CC are operated by the owner or operator such that during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in MHWMR 264.1035(c)(4) of this part or a flare operate with visible emissions as defined in MHWMR 264.1033(d).

VIII.D.5. All reports shall be signed and dated by an authorized representative of the Permittee as per MHWMR 270.11(b)

#### VIII.E. NOTIFICATION OF NEW UNITS

Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to MHWMR Part 264, Subpart CC, or modifying an existing process, waste handling or tank or container such that the unit(s) will become subject to MHWMR Part 264 Subpart CC, the Permittee shall apply for a permit modification under 270.42, and provide specific Part B application information required under MHWMR 270.14-17 and 270.27, as applicable, with the modification request.



Permit Attachment II-1  
Waste Analysis Plan

## 2.0 WASTE ANALYSIS PLAN

### ABSTRACT

#### Typical Types and Quantities of Hazardous Waste Received

Waste Description	Typical EPA Waste Code Nos.	Facility Capacity <sup>(1)</sup>	Estimated Annual Amount <sup>(2)</sup>
Parts Washer Wastes	D001 and (3)	12,000	185
Loading Unit Sediment	D001 and (3)	(4)	2
Tank Bottom Sediment	D001 and (3)	(4)	2
Spent Immersion Cleaner	D001, F002, F004 and (3)	(4)	3.7
Dry Cleaning Waste	D001, F002 and (3)	(4)	12
Paint Waste	D001, F003, F005 and (3)	(4)	14.3

(1) The facility capacity is in gallons.

(2) The annual amount is in thousands of gallons.

(3) D004 through D011, D018, D019, D021 through D030, and D032 through D043.

(4) The total amount of containerized waste stored in the warehouse will not exceed 4,464 gallons and that stored in the flammable storage shelter will not exceed 2,184 gallons.

## 2.0 WASTE ANALYSIS PLAN

### 2.1 DESCRIPTION OF WASTES

Several types of waste result from the servicing of Safety-Kleen customers and the maintenance of the Service Center. The wastes managed at this facility are normally compatible with each other, the container storage area and the concrete sealant. Analytical data for the wastes and specifications for the products are presented in Appendix D, and qualitative descriptions follow.

#### 2.1.1 Parts Washer Wastes

Parts washer wastes from parts washers are accumulated in one nominal 4,000- and one nominal 8,000-gallon aboveground storage tank via the loading units in the return and fill station. Containers are poured into a loading unit (one of three) at the return and fill station which, in turn, empties into the tank. This waste handling method results in three types of parts washer waste:

- a. Parts washer waste—The parts washer wastes are removed from the tanks by a tanker truck on a scheduled basis. It may also be containerized and put in the container storage area. This waste may be ignitable (D001) and may be toxic for any or all of the following waste codes using the characteristic leaching procedure (D004 through D011, D018, D019, D021 through D030, and D032 through D043).
- b. Bottom sediment in the tank—Sediment and other heavy material must be removed periodically from the bottom of the tank. The sediment may be ignitable (D001) and may be toxic for any or all the following waste codes using the characteristic leaching procedure (D004 through D011, D018, D019, D021 through D030, and D032 through D043).

- c. Loading Unit sediment—Sediment also accumulates in the bottom of the loading units (also known as “drum washers/dumpster” units) in the return and fill station. The chemical composition of this waste is analogous to that of the bottom sediment from the tank, and therefore, carries the same hazardous waste codes. This sediment is removed manually, accumulated in satellite accumulation areas in the return and fill station (one for each loading unit), and moved to one of the permitted storage areas within three days of being filled.

Immersion cleaner normally remains in the drum in which it was originally used until it is received at the recycle center. Containers containing spent immersion cleaner are usually placed in the container storage area of the warehouse. Immersion cleaner may be toxic for any or all the following waste codes using the toxicity characteristic leaching procedure (D004 through D011, D018, D019, D021 through D030 and D032 through D043). Additionally, the immersion cleaner can contain ortho-dichlorobenzene, methylene chloride, and cresylic acid (F001, F002, and F004).

### **2.1.2 Dry Cleaner Wastes**

Dry cleaning wastes consist of spent filter cartridges, separator water, powder residue from diatomaceous or other powder filter systems, separator water, still bottoms, and other dry cleaning solvent contaminated wastes. These wastes are packaged on the customer's premises. The containers are then placed in the container storage area of the warehouse or managed on a transfer basis. The majority of the dry cleaning customers generate perchloroethylene (F002). Trichlorotrifluoroethane dry cleaning wastes (F002), 1,1,1-trichloroethane dry cleaning waste (F002) and mineral spirits-based dry cleaning wastes (D001) may also be managed at the service center. Each may be toxic for any or all the following waste codes using the toxicity characteristic leaching procedure (D004 through D011, D018, D019, D021 through D030, and D032 through D043). Dry cleaning separator water is generated during the distilling of the spent perchloroethylene. The recycled perchloroethylene and the water are separated during the distilling process at the generator's



site. The water may be put in containers with other dry cleaning waste, or in separate containers. This separator water is commonly an F002 waste.

### **2.1.3 Metal Halide Light Bulbs**

Metal halide light bulbs may be toxic for mercury (D009). These wastes do not contain any free liquids and do not display any other hazardous characteristics. The bulbs are packaged in cardboard boxes or other DOT approved containers. The light bulbs are managed in the container storage area of the warehouse or on a transfer basis.

### **2.1.4 Photo Processing Waste**

Photo processing wastes may be toxic for silver (D011) or non-RCRA regulated. These wastes are containerized at the customer's location. The photo processing waste is managed in the container storage area of the warehouse or on a transfer basis.

### **2.1.5 Paint Wastes**

Paint wastes consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylene and acetate compounds (D001, F003, F005) and may be toxic for any or all of the following waste codes using to the toxicity characteristic leaching procedure (D004 through D011, D018, D019, D021 through D030, and D032 through D043). The waste is collected at the customer's place of business and the containers are then stored in the flammable storage shelter or are managed on 10-day transfer basis.

### **2.1.6 Used Oil, Oily-Water, and Used Antifreeze**

Used oil, antifreeze and oily-water is accumulated via tank truck and/or containers. Once it reaches the service center material is placed into a 20,000-gallon non-RCRA permitted tank or into

containers for storage in the container storage area prior to transportation to a process facility. The used oil may also be stored in over-the-road tankers while on-site.

### **2.1.7 Industrial Wastes**

Various waste solvents and other non-hazardous and hazardous wastes (solids, liquids, and/or sludges) are collected from industrial customers and managed at the Jackson Service Center on a transfer basis. Waste solvents most often collected by Safety-Kleen include mineral spirits, which may be ignitable (D001); 1,1,1-trichloroethylene (F001, F002); tetrachloroethylene (F001, F002); methylene chloride (F001, F002); 1,1,2-trichloro-, 1,2,2-trifluoroethane (F001, F002); lacquer thinners (D001, F003, F005); various non-halogenated solvents including cresols and cresylic acid (F004, D002), aqueous wastes, and other non-liquid hazardous wastes. Hazardous waste antifreeze may also be handled by Safety-Kleen as an industrial waste.

The following RCRA hazardous waste categories and codes may be stored:

- ✓ Industrial solvents (F001, F002, F003, F004 and F005)
- ✓ Ignitable wastes (D001),
- ✓ Corrosive wastes (D002),
- ✓ Reactive wastes (D003), and
- ✓ Toxicity (D004 through D011, D018, D019, D021 through D030, and D032 through D043).

In addition, lubricating oils, hydraulic oils (non-PCB containing), machine oils and some cutting oils are also collected under this program. Occasionally U-listed and reactive wastes are also accepted for transfer. These wastes are typically containerized by the generator and transported from the point of generation to the Jackson Service center by Safety-Kleen sales representatives. The containerized

wastes are stored in the appropriate, compatible storage area.

### **2.1.8 Lab Pack Materials**

Safety-Kleen employs trained chemists to provide lab pack services. Lab packed materials are known substances, identified via knowledge of the material, labeling, and Material Safety Data Sheets, among other means. Unidentified chemicals are not managed within this program. Once these materials are safely packed for transport they will be managed at the facility basis on a transfer basis. It is important to note that these materials are packaged by trained chemists, are secondarily contained by a metal or fiber container in which they will be brought to the service center, and are not normally opened at the service center. Materials packaged in this fashion typically include F and D-code materials that are commonly used in laboratory and industrial chemicals in small quantities. Occasionally P-code and U-code materials, herbicides, and insecticides, are encountered. Unidentified chemicals are not managed within this program.

## **2.2 QUALITY CONTROL PROCEDURES**

The used solvents are the primary feedstocks for the generation of Safety-Kleen solvent products. As a result, quality control of this material is necessary to ensure that reclamation occurs in the safest and most efficient manner possible. The Service Center collects spent solvents from over 1,500 customers, most of whom are small quantity generators, and approximately 20,000 containers containing recoverable solvents are returned to the Service Center each year for transport to a reclaimer (although these numbers may vary considerably depending on economic conditions and other factors). With such large numbers of waste generators and waste shipments, performing detailed analyses at the service center is economically and logistically not feasible.

Furthermore, materials are usually collected from a company with a single process. The composition and quality of these materials are known, and Safety-Kleen's operating experiences have shown that the collected materials rarely deviate from company specifications. As an additional safeguard,

Safety-Kleen personnel are instructed to inspect all materials before returning them to the service center. This mode of operation has historically been proven to safeguard the recycling process and maintain a quality product.

In accordance with 40 CFR 264.13(a), Safety-Kleen will perform physical and chemical analysis of a waste stream when it is notified or has reason to believe that the process or operation generating the waste has changed, or when the result of inspection indicates that the waste collected does not match that designated. It is Safety-Kleen's practice that suspected nonconforming material must not be accepted until a full analysis has been done, or the material must be rejected.

Procedures to verify waste characteristics occur at several check points in the management of the solvent, as described below.

#### **2.2.1 Parts Cleaner Service**

Prior to leasing a parts cleaning machine, the customer's business activity is reviewed. Where the possibility exists for contamination of the parts washer waste (e.g., pesticide, herbicide or pharmaceutical operations), the process is reviewed to ensure that the solvent is protected from the sources of contamination.

Sales representatives are instructed to visually examine the spent solvents when the machines are serviced, noting the quantity and appearance of the material recovered:

- a. The quantity of used solvent in the drum - normally a parts washer waste container should be no more than 2/3 full, or in the case of containerized immersion cleaner waste, the container is normally not more than 1/3 full.
- b. The appearance of the liquid in the drum – premium parts washer product (150-degree flashpoint) and water-based solvent should be colorless.

Standard parts washer product (105-degree flashpoint) is usually some shade of green. Parts washer waste is normally brown or black. However, when parts washer product is used to clean paint-contaminated or ink-contaminated equipment, the color may reflect the color of the paint or ink. The sales representative must evaluate the color of the material based on the customer's operation.

There are typically two types of immersion cleaner handled through this service center. One type of immersion cleaner is a two-phase system consisting of an upper moderately alkaline aqueous layer and a lower solvent layer. The second type of immersion cleaner is a single-phase liquid. Unused immersion cleaner is brown in color. As this solvent is used, it usually turns darker in color. The more it is used, the darker brown it becomes, until it is almost black. Liquids in the containers which deviate from the above descriptions or which contain substantial amounts of water, high-density solvent and/or oil at the bottom is normally left with the customer. The customer will then be provided options for an alternative means of disposal.

At the service center, the sales representative or the material handler(s) again observes the quantity and appearance of the parts washer waste prior to emptying the solvent into the loading unit. Containers with questionable contents are normally rejected and returned to the customer. The immersion cleaner containers are usually not opened at the service center, so additional verification is not possible until it reaches the process center.

### **2.2.2 Dry Cleaner and Paint Waste Collection Services**

The dry cleaner and paint wastes are commonly collected from facilities where one process is managed, and the possibility of cross-contamination from other chemicals or wastes is minimal. The contents of the containers and carboys are verified by the sales representative when servicing the customer. Comparable to the handling of immersion cleaner, the containers are usually not reopened until they reach the process center.

### **2.2.3 Metal Halide Light Bulbs**

Metal halide light bulbs are also stored at the service center. The bulbs are normally collected from Safety-Kleen customers in cardboard box or other DOT approved containers. When collecting the light bulbs, the sales representative ensures that the container is sealed; i.e. all edges of the container are taped, if the container is a cardboard box. The sales representative also verifies that there are no standing liquids in the cardboard box and that the box has not been contaminated by any material that should not be present.

### **2.2.4 Photo Processing Waste**

Photo processing waste usually consists of aqueous waste generated from both developing and fixing of photos. Because photo processing labs commonly do not generate other types of hazardous wastes, containers are not usually opened by Safety-Kleen representatives at the customer's place of business or at the service center. These wastes are managed on a transfer basis.

### **2.2.5 Used Oil, Oily-Water, and Antifreeze Services**

The used oil, oil-water, and antifreeze are typically collected from the customer's location via tank truck. Prior to pumping used oil into the tank truck, the oil representative checks the material (except for used oil generated by a CESQG) for chlorinated solvents by using a Halogen Leak Detector (or equivalent device) and collects a retain sample (from every used oil customer, regardless of generator status). The material is off-loaded at the service center into a nominal 20,000 tank or into an over-the-road tanker and is not generally handled again until it is transported to a process center. This used material may also be picked up at the customer locations in containers and stored in the facility's container storage area. Retain samples are held at the service center for at least 90 days.

### **2.2.6 Industrial Wastes**

Various hazardous and non-hazardous wastes (liquids, solids, and/or sludges) are collected and managed on a transfer basis at the Jackson, Mississippi Service Center. The wastes are evaluated prior to pickup by Safety-Kleen to ensure they can be safely routed through the service center and managed by Safety-Kleen at one of the recycle centers or other off-site facilities. The containers are not usually opened at the customer's place of business or at the service center. These wastes are managed on a 10-day transfer basis.

### **2.2.7 Lab Pack Materials**

Lab packs are packaged at the customer's site by trained chemists and are not generally opened at the service center. The lab pack contents are known substances that are secondarily contained in a DOT approved metal or fiber container. Lab packs are managed at the service center on a transfer basis.

## **2.3 WASTE ANALYSES AT THE RECYCLE CENTER**

Analyses performed at the Safety-Kleen recycle centers are undertaken on a periodic basis to safeguard the recycling process and to assure the product quality. Core waste streams (non-transfer) are tested on scheduled intervals for flash point, halogenated volatile organic compounds (HVOCs), polychlorinated biphenyls (PCBs), and pH (dry cleaning wastes only). In addition, each waste stream terminated (core, non-transfer) at the Jackson, Mississippi Service Center is recharacterized on an annual basis. Safety-Kleen's most recent annual recharacterization analytical data and test methods are referenced in Appendix D.

## **2.4 WASTE ANALYSIS PLAN UPDATE**

This Waste Analysis Plan will be modified when a new waste stream is collected or when sampling and material management methods change. Revision of the plan is the responsibility of Safety-

Kleen's Environment, Health and Safety Department.

## **2.5 LAND DISPOSAL RESTRICTIONS NOTIFICATION/CERTIFICATION FORMS**

In accordance with 40 CFR 268.7, Safety-Kleen will provide notification/certification for wastes banned from landfills as follows:

1. Printing the Notice language on the manifests - such as for core-business customers to branch shipments; or
2. General forms for each regularly handled waste (i.e. core, non-transfer) types (e.g., MS, IC, dry cleaning, paint); or
3. A special form that must be completed for unique or nonstandard waste streams. These wastes will only be handled on a transfer basis, in accordance with 40 CFR 263.12.

The Notice is required paperwork for all Safety-Kleen waste types. Shipments lacking the proper Notice will not be accepted by any Safety-Kleen facility. When a shipment with the proper Notice is received, the Notice is kept in the files of the receiving facility with the manifest or with the pre-print (sales and service acknowledgment) if a manifest is not used. Electronic record keeping may be employed in lieu of maintaining paper copies of these documents.



Permit Attachement II-2  
Security Plan

### 3.0 PREPAREDNESS AND PREVENTION PLAN

#### ABSTRACT

SECURITY MEASURES - The site is secured as follows:

- a. There is a chain link fence topped with three strands of barbed wire around the facility;
- b. Warning signs are posted at all entrances;
- c. Locks are on all entrances to the warehouse and on the flammable storage shelters and sheds;
- d. Remote controls for all tank operations are inside the warehouse; and
- e. There is outdoor lighting provided from dusk to dawn.

INSPECTION PROCEDURES: See Attachment E.1 for an example copy of the Facility Inspection Record and Procedures.

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

- a. Internal communications will be by voice and/or the telephone loudspeaker/paging system;
- b. Telephones are available in the office and the south warehouse area; employees also have cellular phone access;
- c. Fire extinguishers are available next to each exit in each inside waste management unit;
- d. Water is available from the City of Jackson;
- e. Emergency buttons for disconnection of the loading units and "panic buttons" for the alarm system are available in the return; and
- f. Spill containment equipment is available near container storage areas and tank farm.

### **3.0 PREPAREDNESS AND PREVENTION PLAN**

#### **3.1 SECURITY MEASURES**

The facility is secured with a 6-foot high chain link fence topped by three strands of barbed wire. All access gates remain locked when the facility is unoccupied and warning signs stating "Danger - Unauthorized Personnel Keep Out" which are visible from 25 feet are posted at the entrances and approximately every 50 feet along the fence. In addition, outdoor lights are provided from dusk to dawn. The office/warehouse buildings are secured with locks on all doors and warning signs are posted at all entrances to work and waste storage areas.

Tank pump controls are located inside the warehouse. The pumps are not activated unless parts washer product or waste is being added to or removed from the tanks by Safety-Kleen personnel. The warehouse also includes the container storage area; it is securely fastened unless the facility is occupied by Safety-Kleen personnel. As a result, the tanks and container storage area are inaccessible except by Safety-Kleen personnel. In addition, warning signs are posted on the return and fill station.

The overhead door to the flammable storage shelter will be closed and locked unless containers are being added to or removed from the shelter. Warning signs are also posted on the shelter.

#### **3.2 INSPECTION PROCEDURES**

The branch (i.e., service center) manager or designee is responsible for carrying out and documenting the facility inspection during each day of operation. Refer to Appendix E for examples of forms which contain, at a minimum, the required inspection items and frequencies. An example of a general facility inspection checklist is provided as Attachment E.1. The branch manager or designee

Permit Attachemetn II-3  
Inspection Schedule

### **3.0 PREPAREDNESS AND PREVENTION PLAN**

#### **3.1 SECURITY MEASURES**

The facility is secured with a 6-foot high chain link fence topped by three strands of barbed wire. All access gates remain locked when the facility is unoccupied and warning signs stating "Danger - Unauthorized Personnel Keep Out" which are visible from 25 feet are posted at the entrances and approximately every 50 feet along the fence. In addition, outdoor lights are provided from dusk to dawn. The office/warehouse buildings are secured with locks on all doors and warning signs are posted at all entrances to work and waste storage areas.

Tank pump controls are located inside the warehouse. The pumps are not activated unless parts washer product or waste is being added to or removed from the tanks by Safety-Kleen personnel. The warehouse also includes the container storage area; it is securely fastened unless the facility is occupied by Safety-Kleen personnel. As a result, the tanks and container storage area are inaccessible except by Safety-Kleen personnel. In addition, warning signs are posted on the return and fill station.

The overhead door to the flammable storage shelter will be closed and locked unless containers are being added to or removed from the shelter. Warning signs are also posted on the shelter.

#### **3.2 INSPECTION PROCEDURES**

The branch (i.e., service center) manager or designee is responsible for carrying out and documenting the facility inspection during each day of operation. Refer to Appendix E for examples of forms which contain, at a minimum, the required inspection items and frequencies. An example of a general facility inspection checklist is provided as Attachment E.1. The branch manager or designee

must note any repairs that are needed and assure that they are completed and documented. If he or she cannot carry out the repairs, he or she must notify a Safety-Kleen approved contractor and request assistance. Completion of repairs must also be noted on the facility inspection report.

The facility inspection schedule includes the following:

- a. Tank inspections - At a minimum, each tank must be inspected each operating day. The inspections include checks of the high-level alarm and of the volume (according to the gauge) held in each tank. Any sudden deviations in the solvent volumes will be investigated and its cause determined. If a repair is necessary, it will be initiated immediately. The waste should not exceed 95 percent of the tank volume or permitted capacities, whichever is less, at any time.

The volume of material in each tank will be noted on the inspection form each operating day. Sediment (bottom sediment) cannot be determined in an aboveground tank except by inserting a measuring tape from the top. Due to safety hazards and logistics involved, the sediment depth is estimated and is removed on a regular schedule.

The piping and secondary containment for the tanks will be checked for leaks, cracks, or other deterioration. Any damage to the tanks, piping (such as rust, seepage or loose fixtures) or secondary containment must be noted and repairs initiated immediately. Accumulated rainwater and/or spilled material is managed in accordance with 40 CFR 264.193.

- b. Solvent dispensing equipment - The solvent dispensing hose, connections and valves will be inspected each operating day for damage (such as cracks or leaks) and proper functioning. The pumps, pipes and fittings will also be

checked for damage and proper functioning. Any damage to the solvent dispensing equipment will be noted and repairs initiated immediately.

- c. Container storage areas - Container storage areas are inspected each operating day, and the number and condition of the containers are noted. The total volume of the spent solvent held in the container storage area will not exceed the permitted capacity or ten times the amount that can be collected in the secondary containment system, whichever is less. The contents of any leaking or suspect containers will be placed in a container of adequate integrity. Finally, the containers will be properly labeled and marked in accordance with U.S. DOT and Mississippi Hazardous Waste Regulations. The secondary containment systems will be inspected for deterioration or failure. If cracks or leaks are detected, they will be noted and repairs initiated immediately.
- d. Return and fill station - The loading units (in the return and fill station) will be inspected each operating day for leaks and sediment buildup. Any leaks will be noted and repairs initiated immediately and excess sediment will be removed from the loading units. The secondary containment will be checked for cracks and gaps. Any liquid will be removed from the containment in a timely manner.
- e. Safety equipment - The fire extinguishers and other safety equipment will be checked to ensure that the units are properly charged/functioning and accessible. In addition, the operation of the telephone loudspeaker/ paging system, panic buttons, and the eyewash will be confirmed and the emergency equipment, including personal protective equipment, will be inspected weekly for adequate content and accessibility using a checklist, such as the example checklist found in Appendix E. Attachment E.2 includes a list of

required emergency and decontamination equipment and a figure depicting these emergency equipment locations.

- f. Security - The operation of each outside light will be checked each operating day, and the operation of each gate and lock will be checked weekly. In addition, the fence will be inspected for deterioration on a weekly basis. Each sign located on or in the warehouse and the return and fill station, and the control panel for the tank pumps will be checked weekly.
- g. Air Emission Standards - Safety-Kleen does not operate process equipment at the Jackson Service Center for which the RCRA Subpart AA air emission standards would apply. The facility utilizes several pumps, valves and other equipment for the storage of spent solvents for which Subpart BB does apply. This equipment will be subject to the leak detection and record-keeping requirements of the Subpart BB standards. Safety-Kleen conducts leak inspections, repair and record-keeping procedures for the Jackson facility, as detailed in this section. The example inspection checklist for this item is provided in Attachment E.1. Wastes managed at the Jackson Service Center have been determined to contain volatile organic (VO) concentrations greater than 500 ppm by weight. Therefore, the storage tanks and containers used for the management of hazardous waste at the service center are subject to applicable Subpart CC (40 CFR 264.1084) standards. The tanks and containers are subject to Level 1 control requirements under Subpart CC. Visual inspection of containers and hazardous waste tanks will be completed and documented as required by 40 CFR 264.1084. The initial inspection of the tank was conducted when the tank first became subject to the Subpart CC rule. No defect was found during the visual inspection. Safety-Kleen complies with Level 1 controls for containers by meeting DOT regulations for packaging hazardous materials and equipping containers with covers in



accordance with requirements of 40 CFR 264.1084.

### **3.3 FACILITY DESIGN**

The Jackson Service Center was designed to minimize the possibility of spills or fires and to minimize the effects of any accidents which may occur. Specifications for the storage facilities, secondary containment and other equipment are presented in Appendix E and descriptions follow.

#### **3.3.1 Tank Storage**

A 4-pack tank farm area located at the Jackson facility contains two nominal 8,000-gallon and two nominal 4,000-gallon tanks. The nominal 8,000-gallon storage tanks are 8' in diameter and 21'6" long and the nominal 4,000-gallon storage tanks are approximately 8' in diameter and 10' 10" long. The tanks are designed with nominal 1/4" thick carbon steel painted a light color to reflect sunlight and minimize corrosion. Construction diagrams of the nominal 4,000-gallon and the nominal 8,000-gallon tanks are presented in Attachments E.3a and E.3b. In addition, horizontal tank gauge details of the storage tanks are presented in Attachment E.4. The tanks are designed in accordance with Underwriters Laboratories Standard 142 and are located more than 50 feet from the property line, in accordance with National Fire Protection buffer zone requirements. The secondary containment for the tank farm consists of a monolithically poured slab and dike walls. The 6-inch thick slab and the 8-inch thick walls are both constructed of steel reinforced concrete. The concrete has been sealed with a chemically resistant coating. Plan and details of the 4-pack tank farm area are presented in Attachment E.5. In addition, Attachment E.6 presents details of the tank access container.

In addition, a nominal 20,000-gallon non-RCRA permitted tank containing used oil, oily-water, and used antifreeze is at the facility. The aboveground storage tank is approximately 10' in diameter and 34' long. Secondary containment is provided by curbing in the loading and unloading area and meets requirements under 40 CFR 279.112.

Safety-Kleen operates three loading units (also known as "drum washer/dumpster" units) at the Jackson Service Center. These units are ancillary equipment to the storage tanks and assist in transferring parts washer waste from containers to the horizontal storage tanks. The loading units act as ancillary equipment and feed parts washer waste into a common line leading to the storage tanks. These loading units each have a nominal maximum capacity of 374 gallons and they are constructed of welded steel.

A manually-controlled waste feed cut-off valve, located adjacent to the loading units at the return and fill station, has been placed into the line prevent the parts washer waste tanks from being overfilled. In addition, the aboveground permitted tanks are equipped with high-level alarms (see Attachment F.7) to indicate when a tank is 95 percent full or 95 percent of permitted capacity, whichever is less. Each high-level alarm is inspected and tested each operating day.

The return and fill station (i.e., the tank feed system) is a sheet metal structure with a roof. The loading units (see above) are steel fabrications. As ancillary equipment to the parts washer waste tanks, the loading units are tight-piped to the tanks and all piping is aboveground as indicated on the piping schematic (Attachment E.9). The loading units are located in the return and fill station. The drawing in Attachment E.8 and E.10 provides detailed information on the loading units.

Parts washer waste is returned from customers via containers and emptied into the loading units. The container is then placed on the roller brushes in the enclosed, loading unit (drum washer unit). When the unit is turned on, the barrel rotates on the brush, cleaning the outside of the container. There is also a nozzle that sprays a stream of parts washer waste into the bottom of the container to clean the inside of the container. The unit is then turned off and the container is removed. The procedure takes approximately 15 seconds per container.

The parts washer waste drains to a sump in the bottom of the unit and is automatically or manually pumped to the parts washer waste storage tank. There is a basket in the sump that collects sediment to protect the pumps. Periodically, this basket is removed and sediment is removed and placed into a sediment container for processing off site. The loading unit is a totally enclosed unit.

### **3.3.2 Container Storage**

The slab, curbing and collection trench for the container storage area in the warehouse are made of steel reinforced concrete and the concrete has been poured so that there are no cracks or gaps. The entire base is free of cracks and gaps and has been sealed with a chemically resistant coating. The curbing is 4" high and 6" wide and encompasses the storage area except where there is a trench. Steel grates cover the trench to facilitate the movement of containers across it. The solvents in the storage area are all compatible with each other and the sealants.

Safety-Kleen manages hazardous waste in containers of various sizes. Typical containers are between 5 and 55 gallon in capacity. The facility may also use larger containers such as overpacks, totes, and transportation containers (tank trucks) for management of hazardous wastes. Parts washer wastes, immersion cleaner waste, dry cleaning wastes, paint wastes, loading unit sediment, and metal halide light bulbs are compatible with the containers in which they are stored; parts washer solvents are sometimes used as a rust-preventive coating for steel. Dry cleaning wastes are usually stored in steel and polyethylene containers, both of which meet DOT-specifications. The containers will be palletized whenever possible to facilitate shipping and storage. Hazardous waste containers will be kept closed except when adding or removing waste and are labeled in accordance with 40 CFR 262 and DOT regulations.

Safety-Kleen will package all wastes for transportation under the guidelines for package applications and approved exemptions under 49 CFR 173. Each package will meet the testing requirements under 49 CFR 178 as it applies to each individual package.

### **3.4 PLANT OPERATIONS - POTENTIAL SPILL AND FIRE SOURCES AND CONTROL PROCEDURES**

Employees will perform their duties in the safest, most efficient manner possible, and the service

# Inspection Log Sheet Container Storage Area

Inspector's Name/Title: \_\_\_\_\_

Monday	Tuesday	Wednesday	Thursday	Friday
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
Signature	Signature	Signature	Signature	Signature

Containers (# of Cont./Total Gal)	Monday #/gal	Tuesday #/gal	Wednesday #/gal	Thursday #/gal	Friday #/gal
<b>Branch Waste</b>					
Contaminated Debris					
Aqueous					
Wet Dumpster Sludge					
<b>Spent IC</b>					
<b>Dry Cleaning</b>					
<b>Paint Wastes</b>					
5-gallon					
16-gallon					
30-gallon					
<b>Permitted Volume Drum 01 (4464 gallons)</b>					
<b>Permitted Volume Flam 01 (2184 gallons)</b>					
<b>10-Day Waste (Both portable buildings)</b>					
<b>Nonhaz Waste</b>					

**Stacking/Placement/  
Aisle Space**

A N                      A N                      A N                      A N                      A N

If "N" circle appropriate problem(s) and date each one: containers not on pallet, unstable stacks, aisle blocked, broken or damaged pallets, labels not facing aisle, other: \_\_\_\_\_

**Labels**

A N                      A N                      A N                      A N                      A N

If "N" circle appropriate problem(s) and date each one: transfer date not on 10-day drums, labels not facing aisle, accumulation start date missing, DOT diamond missing, labels not legible/in good condition, shipping/customer information not complete, other: \_\_\_\_\_

**Curbing, Floor, Sumps**

A N                      A N                      A N                      A N                      A N

(Any material which spills, leaks or otherwise accumulates in the secondary containment must be completely removed within 24 hours of being discovered.) If "N" circle appropriate problem(s) and date each one: ponding/wet spots, deterioration (cracks, gaps in floor, etc.), trash, aisle marking paint worn off, other: \_\_\_\_\_

**Loading/Unloading Area**

A N                      A N                      A N                      A N                      A N

If "N" circle appropriate problem(s) and date each one: cracks, deterioration, ponding/wet spots, spill kit in place, fire extinguisher in place, other: \_\_\_\_\_

Observations, comments, dates, and nature of all items indicated as "N" (not acceptable) are to be recorded (over, if needed) with date of scheduled repair/completion of repair and description of repair. \_\_\_\_\_

"A" = Acceptable

"N" = Not Acceptable

# Inspection Log Sheet Storage Tank System

Inspector's Name/Title: \_\_\_\_\_

Monday	Tuesday	Wednesday	Thursday	Friday	
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	
Signature	Signature	Signature	Signature	Signature	
<b>Storage Tank:</b> (Tank must be < 95% full)	Monday in/gal	Tuesday in/gal	Wednesday in/gal	Thursday in/gal	Friday in/gal
12,000 Gallon Spent Solvent Tank	_____	_____	_____	_____	_____
8,000 Gallon Clean Solvent Tank	_____	_____	_____	_____	_____
4,000 Gallon Clean Solvent Tank	_____	_____	_____	_____	_____
20,000 Gallon Used Oil Tank	_____	_____	_____	_____	_____

## High Level Alarms/Level

Age:                      A   N                      A   N                      A   N                      A   N                      A   N

If "N" circle appropriate problem(s) and date each one: malfunctioning "Power On" Light, malfunctioning siren/strobe light, other: \_\_\_\_\_

## Tank Farm

                                 A   N                      A   N                      A   N                      A   N                      A   N

If "N" circle appropriate problem(s) and date each one: cracks, debris in dike, open drums in dike, ponding/wet spots, deterioration or displacement, leaks, other: \_\_\_\_\_

## Rigid Piping and Supports/Grounding

                                 A   N                      A   N                      A   N                      A   N                      A   N

If "N" circle appropriate problem(s) and date each one: distortion, loose supports, grounding wires loose, corrosion, paint failure, leaks, loose connections, bonding wires, other: \_\_\_\_\_

Acceptable

"N" = Not Acceptable

# Inspection Log Sheet Storage Tank System

Inspector's Name/Title: \_\_\_\_\_

Week Beginning: \_\_\_\_\_

Monday

Tuesday

Wednesday

Thursday

Friday

## TRANSFER PUMPS AND HOSES

### Pump Seals

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: leaks, other: \_\_\_\_\_

### Motors:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: overheating, other: \_\_\_\_\_

### Fittings:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: leaks, other: \_\_\_\_\_

### Valves:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: leaking, sticking, other: \_\_\_\_\_

### Hose Connections and Fittings

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: cracked, loose, leaks, other: \_\_\_\_\_

### Body:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: crushed, thin spots, leaks, cracked, other: \_\_\_\_\_

## ASSOCIATED EQUIPMENT

### Spill Kit:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: inadequate supply of absorbent, towels, and/or clay, not clean, disorganized, missing, other: \_\_\_\_\_

### Tanker Alarms:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: alarm does not sound when tested, other: \_\_\_\_\_

### Emergency Alarm:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: alarm does not sound in office when tested, other: \_\_\_\_\_

### Tanker Access Container:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: leaks, plug missing, missing pads, other: \_\_\_\_\_

"A" = Acceptable

"N" = Not Acceptable

# Inspection Log Sheet Storage Tank System

Inspector's Name/Title: \_\_\_\_\_

Week Beginning: \_\_\_\_\_

Monday

Tuesday

Wednesday

Thursday

Friday

## RETURN AND FILL STATION

### Drum Spritzer

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: hot motor, leaks, rust, split seams, distortion, deterioration, not draining, other: \_\_\_\_\_

### Drum Washer:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: sediment buildup, pumps not working, pumps leaking, leaks, rust, split seams, distortion, deterioration, excess debris, not labeled, fusible link, overspray, other: \_\_\_\_\_

### Reuse Solvent Supply Vat:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: leaks, rust, split seams, distortion, deterioration, not draining, other: \_\_\_\_\_

### Drip Pans:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: sediment buildup, leaks, rust, split seams, distortion, deterioration, excess debris, fire cans not labeled, other: \_\_\_\_\_

### Debris/Sludge Drums:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: more than one of each type, not closed, not labeled, not wiped down, other: \_\_\_\_\_

### Secondary Containment:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: sediment/liquid, leaks, deterioration, excess debris, other: \_\_\_\_\_

### Loading/Unloading Area:

A N

A N

A N

A N

A N

If "N" circle appropriate problem(s) and date each one: ponding/wet spots, aisle blocked, grating warped, spill kit not full or blocked, other: \_\_\_\_\_

### Other Observations:

### Comments/Not Acceptable Items:

### Date and Nature of Corrective Actions:

# Inspection Log Sheet (Weekly)

## Security, Safety and Emergency Equipment, and Miscellaneous Devices

Inspector's Name/Title: \_\_\_\_\_

Date/Time: \_\_\_\_\_

### SAFETY AND EMERGENCY EQUIPMENT

#### Fire Extinguishers

A N

(See attached list)

If "N" circle appropriate problem(s): overdue inspection, inadequately charged, inaccessible, other: \_\_\_\_\_

#### Eyewashes and Showers Return and Fill

A N

If "N" circle appropriate problem(s): disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning, leaking, other: \_\_\_\_\_

#### Eyewashes and Showers Warehouse

A N

If "N" circle appropriate problem(s): disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning, leaking, other: \_\_\_\_\_

#### First Aid Kits

A N

If "N" circle appropriate problem(s): inadequate inventory, other: \_\_\_\_\_

#### Spill Cleanup Equipment

A N

If "N" circle appropriate problem(s): inadequate supply of absorbent, towels and/or clay, inadequate supply of shovels, mops, empty drums, wet/dry vacuum, other: \_\_\_\_\_

#### Personal Protective Equipment

A N

If "N" circle appropriate problem(s): inadequate supply of aprons, gloves, glasses, respirators, respirators missing components, items requiring security or clean environment are exposed to the environment, other: \_\_\_\_\_

#### Communication Devices

A N

If "N" circle appropriate problem(s): inadequate supply of telephones, malfunctioning telephone(s), malfunctioning intercom, emergency alarm not working, telephones not located where needed, other: \_\_\_\_\_

### SECURITY DEVICES

#### Gates and Locks

A N

If "N" circle appropriate problem(s): sticking, corrosion, lack of warning signs, open and not attended, improper fit, other: \_\_\_\_\_

#### Doors

A N

If "N" circle appropriate problem(s): door broken, door sticks, missing signs, missing locks, other: \_\_\_\_\_

#### Fence

A N

If "N" circle appropriate problem(s): broken ties, corrosion, holes, distortion, other: \_\_\_\_\_

### MISCELLANEOUS EQUIPMENT

#### Dry Dumpster

A N

If "N" circle appropriate problem(s): rust, corrosion, split seams, distortion, deterioration, excess debris, liquids in unit, other: \_\_\_\_\_

Observations, comments, dates, and nature of all items indicated as "N" (not acceptable) are to be recorded (over, if needed) with date of scheduled completion of repair and description of repair. \_\_\_\_\_

"A" = Acceptable

"N" = Not Acceptable



**Inspection Log Sheet**  
**Subpart CC**  
**End of Week Container Inspection**

End of Week Container Inspection: Complete this checklist on the last day of the service week when the facility inspection will not be conducted within 24 hours. This inspection of containers will supplement container inspections completed during the work week.

**Inspector's Name/Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date of Inspection:** \_\_\_\_\_

Condition of Containers: Circle "A" if the condition of all containers is acceptable; circle "N" if the condition of one or more containers is not acceptable.

A   N

Defects Noted:

Yes   No

If "N," circle appropriate problem(s): missing or loose lids; missing, incorrect, or incomplete labels; rust; leaks; distortion;  
other: \_\_\_\_\_

Action taken to correct unacceptable condition(s):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Permit Attachment II-4  
Personnel Training Outline

## **5.0 PERSONNEL TRAINING**

**OBJECTIVE:** The purpose of training is to familiarize employees with environmental regulations, records, and emergency procedures so they can perform their jobs in the safest and most efficient manner possible. The program is designed to ensure that service center personnel are able to respond effectively to emergencies by familiarizing them with emergency equipment and emergency response procedures. The information in this section complies with the requirements of 40 CFR 270(b)(12) and 264.16.

## **5.0 PERSONNEL TRAINING PLAN**

### **5.1 OUTLINE OF TRAINING PROGRAM**

Each employee is trained in topics that are appropriate to his/her job duties. All hazardous waste employees complete a combination of videotape, classroom, written, and on-the-job training within six months of starting their position. Table 5.0a provides the minimum level for employee training.

### **5.2 JOB TITLE/JOB DESCRIPTIONS**

Job descriptions for employees who are expected to handle or to manage information related to hazardous waste are maintained in employees training files at the facility.

#### **5.2.1 TRAINING CONTENT, FREQUENCY, AND TECHNIQUES**

Employee training is accomplished using classroom, videotape, written, and on-the-job methods. The Branch (service center) Manager is assisted by Safety-Kleen's Environment, Health, and Safety Department in the development of training programs for service center employees. The service center will provide documentation that the program has been executed. The following presents the specific training requirements for new Safety-Kleen employees who will manage or handle hazardous wastes.

Training of New Branch (Service Center) Managers: A branch (service center) manager brought in to manage a facility of this size is normally promoted from within Safety-Kleen, has several years of experience and training in the following areas:

- A. manifests
- B. training records
- C. inspection records

- D. spill reports
- E. general regulations

Time will be spent reviewing past environmental compliance at the service center and environmental regulations unique to the state and locality.

Training of New Branch Mid-Level Managers: Mid-level managers include the Branch Automotive Manager, Branch Industrial Manager, Branch Imaging Specialist, and Branch Special Markets Manager. Branch mid-level managers are trained in topics listed in Table 5.0a. These individuals report directly to the branch (service center) manager and are responsible for field operations and, in some cases, some branch operations and administration. Any or all of the mid-level managers may be designated as the person in charge during the absence of the branch (service center) manager.

Training of New Administrative Personnel: Administrative personnel deal with most of the paper and electronic aspects of the Company operations. A portion of that involves RCRA. Electronic tracking of most RCRA related information assists in preventing their processing of this information incorrectly, and so the training is literally minute to minute. Their training in this regard begins almost immediately upon employment and is continuous, daily and on-going. Formalized training requirements are shown in Table 5.0a.

Training of New Field Sales and Service Representatives: New field sales and service representatives are trained on topics listed in Table 5.0a. This training is completed prior to unsupervised activity. A sales and service representative may also be trained at a later date as the designee for performing service center inspections and other duties.

Training of New Warehousemen/Material Handlers: A warehouseman/material handler is trained to maintain the service center and assist the other branch employees with their tasks. He/she may be a designee for service center inspections. His/her typical activities are directed and supervised. Within six months of beginning the job, he/she must review the items listed in Table 5.0a.

Annual Training: On an annual basis, the training level of branch (service center) managers is reviewed by a Environment, Health, and Safety Manager. Additionally, employees are trained (see Table 5.0a) using a program prepared and updated annually by the Safety-Kleen Environment, Health, and Safety Department (EHS). This training may include updates on environmental regulations and an in-depth review of the Contingency Plan. This review is in the form of videotapes and/or a review and discussion of the training topic. In addition, periodic memoranda on changes in environmental policies and/or regulations are issued by the EHS department.

#### **5.2.2. Training Director**

The training is directed by Safety-Kleen's EHS Department. Each EHS Manager who works for this department is responsible for compliance of the service centers, in conjunction with the branch (service center) management, in a given geographic area of the country. The EHS Department must:

- ✓ provide a training program that addresses the requirements of environmental regulations and corporate policy;
- ✓ notify the proper authorities, oversee remedial actions and submit a written report to the state after an emergency situation has occurred;
- ✓ assure that environmental permits are submitted and updated as requests;
- ✓ manage any environmental compliance issues that exceed the resources available at the service center level.

#### **5.2.3 Relevance of Training to Job Position**

Safety-Kleen's training programs are designated to give employees appropriate instruction regarding the hazardous waste management procedures they will encounter in performing their respective duties. The training program is also designated to avoid overwhelming employees with information that is not relevant to their duties.

#### **5.2.4 Training for Emergency Response**

Employees are trained as is appropriate in emergency response (Contingency Plan) procedures, through both initial training and yearly refresher sessions, as summarized in Table 5.0a. The emergency training varies depending on job duties, but frequently involves spill and fire prevent as well as remedial action procedures. Employees are also trained to recognize when evacuation and outside assistance may be necessary.

#### **5.2.5 Implementation of Training Program**

New branch (service center) managers, mid-level managers, and field sales and service representatives must complete an introductory training program discussed in Section 5.2.1 before performing unsupervised activity, with annual review and updates thereafter. Service center secretaries and warehousemen/material handlers will be fully trained within six months of starting work.

All of the modular training is documented. Training records for current personnel are kept on file at the service center until closure. Training records for former personnel are kept for at least three years from the date the person last worked at the service center. If an employee is transferred to another company location, training records are transferred with the employee.

**TABLE 5.0a**

**INTRODUCTORY AND ANNUAL TRAINING TOPICS FOR  
SERVICE CENTER EMPLOYEES**

Topic	Sales Representative/ Mid-Level Manager	Administrative Personnel	Warehouseman/ Material Handler	Branch(Service Center) Manager
A	X			X
B	X			X
C	X		X	X
D	X		X	X
E				X
F	X	X		X
G	X(a)		X(a)	X(a,b)

- A. Environmental Regulation Update
- B. Waste Analysis Plan
- C. Preparedness and Prevention Plan
- D. Contingency Plan and Emergency Procedures
- E. Inspections
- F. Manifesting
- G. a. Spill Simulation  
b. Spill Reports



## Permit Attachment II-5

### Procedures for Handling ignitable, Reactive, or Incompatible Waste

leaks and potential incident. Regular inspection of this equipment and the parts washer waste and product inventory will detect any leaks.

### 3.4.3 Potential Fire Sources

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

- a. All wastes and products are kept away from ignitable sources - Personnel must confine smoking and open flames to designated areas, separate from any waste storage areas. No smoking is allowed inside any Safety-Kleen buildings or vehicles. All electrical wiring, switches and fixtures, etc., for the pumps and lighting systems for the tank system meet the applicable fire safety and electrical construction codes. The parts washer waste handling area, flammable storage shelter and the aboveground storage tanks are separated from the warehouse building area to minimize the potential for a fire to spread or injury to personnel to occur;
- b. Ignitable wastes are handled so that they do not:
  1. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction - The ignitable wastes are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources or subject to violent reactions. The tanks are vented and the containers are kept at ambient temperature to minimize the potential for pressure build up. The tanks are painted a light color to reflect sunlight and are vented to prevent radiant heat buildup;
  2. Produce uncontrolled toxic mists, fumes, dusts or gases in quantities

sufficient to threaten human health - The vapor pressure of parts washer solvents is typically low (2 mm) and it and the paint wastes are only reactive with strong oxidizers and reactive metals. Toxic mists, fumes, dusts or gases will not form in quantities sufficient to threaten human health since strong oxidizers are handled at this facility on a transfer basis only, with proper segregation from other reactive materials. Thus, the potential for a reaction between incompatible materials is minimal under normal working conditions;

3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion - See "a" above and "c" below;
4. Damage to the structural integrity of the Safety-Kleen service center- The parts washer wastes and paint wastes will not cause deterioration of the tank, containers, or other structural components of the facility;
- c. Adequate aisle space is maintained to allow the unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the service center operation in an emergency;
- d. "No Smoking" signs are posted in areas where solvents are handled or stored; and
- e. Fire extinguishers are checked once per week and tested by the fire extinguisher company once per year.

#### **3.4.4 Tank Evaluation and Repair Plan**

Permit Attachment II-6  
Location Standards

## **Appendix C**

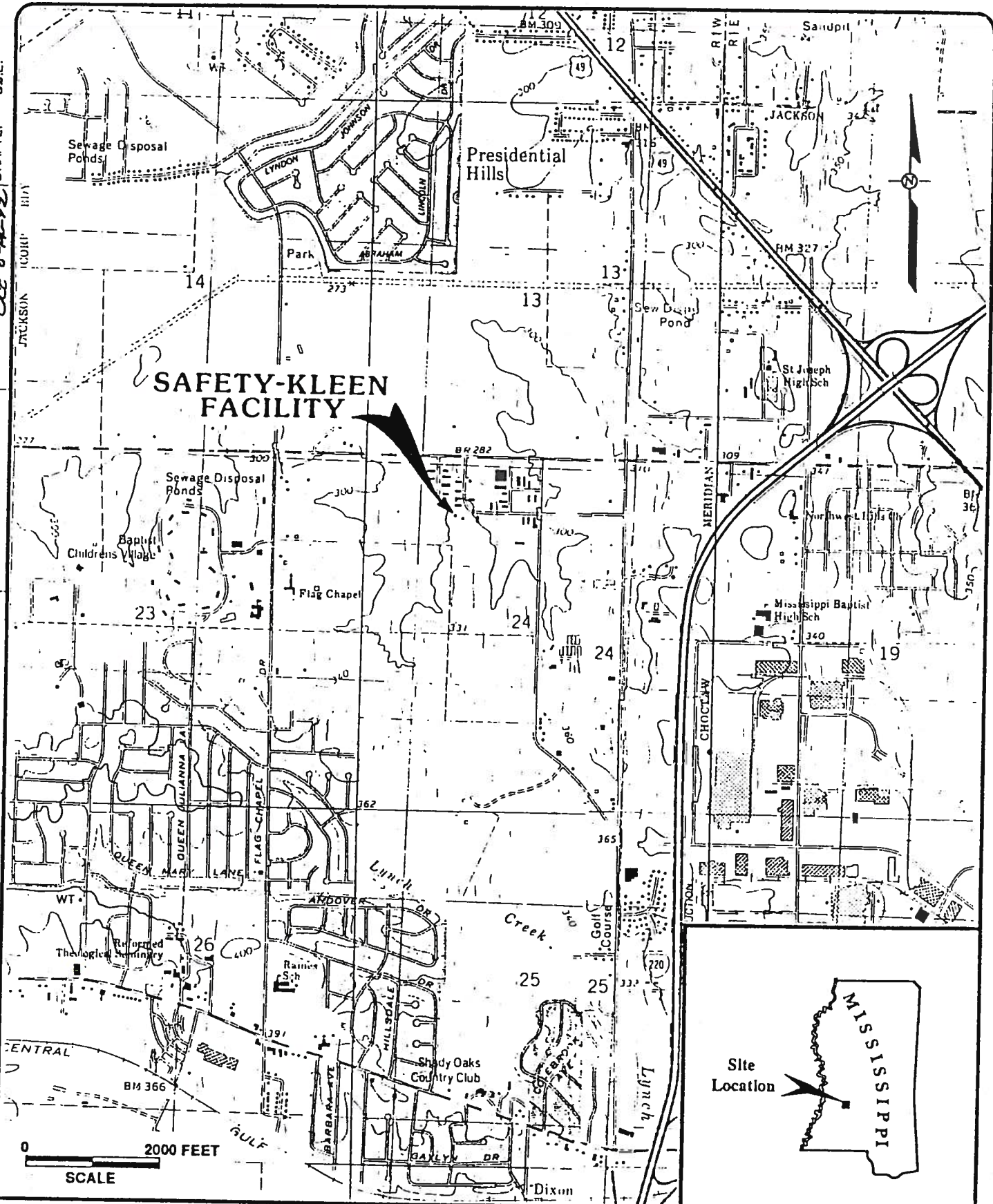
### **Maps and Facility Drawings**

## **Appendix C**

### **Attachment C.1**

#### **Area Topographic Map**

DWG. : 7/28/92 | PROJ. NO.: LA577.01 | FILE NO.: MAC-A | DRAWING: C.1 | CHECKED: | APPROVED: *8-14-92* DRAFT: S.J.E.



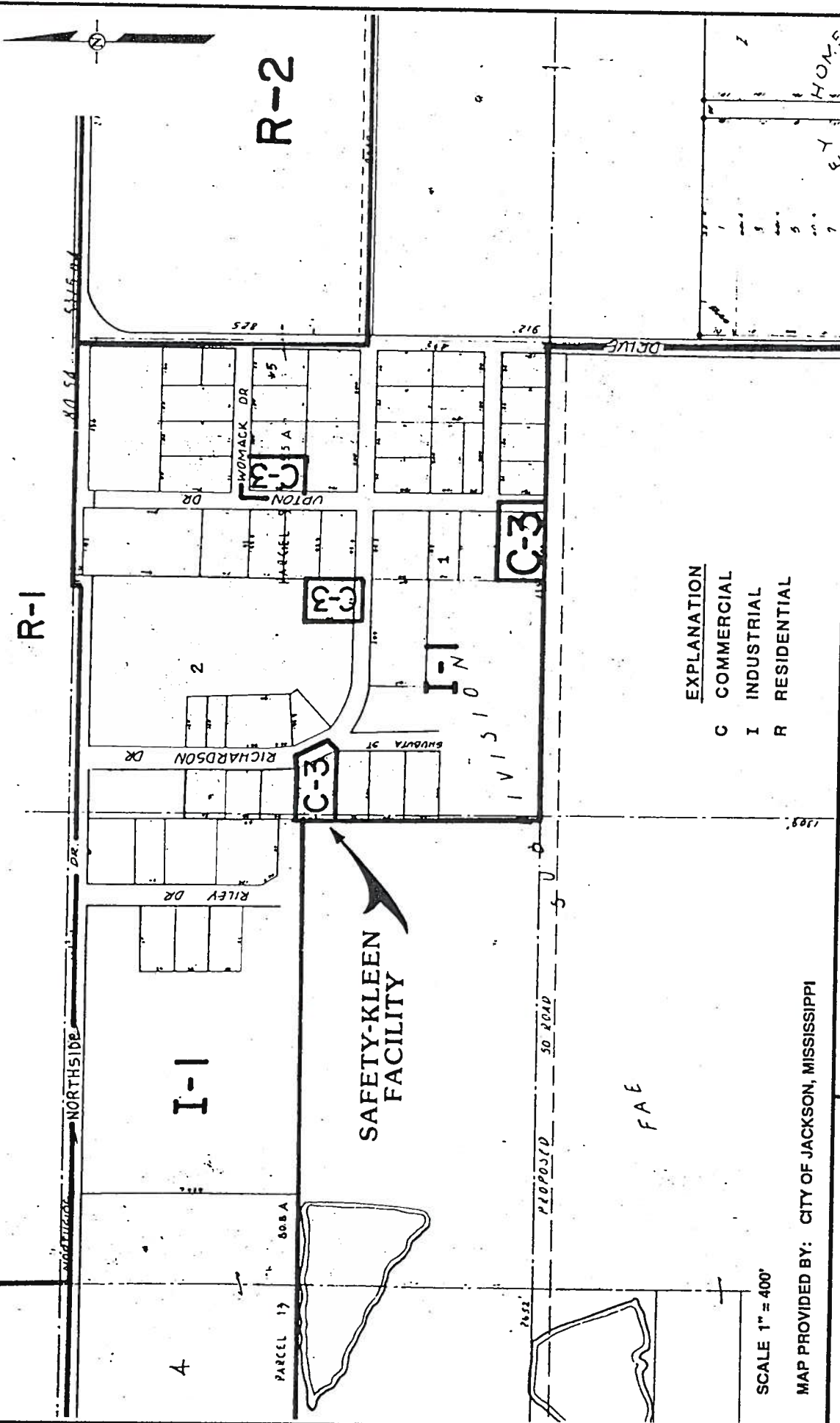
 **GERAGHTY & MILLER, INC.**  
Environmental Services

**AREA TOPOGRAPHIC MAP**  
**SAFETY-KLEEN CORPORATION**  
Jackson, Mississippi

FIGURE  
**C.1**

**Appendix C**  
**Attachment C.2**  
**Zoning Map**





## **Appendix C**

### **Attachment C.3**

#### **Site Vicinity Topographic Map**

DWG DA 28/92

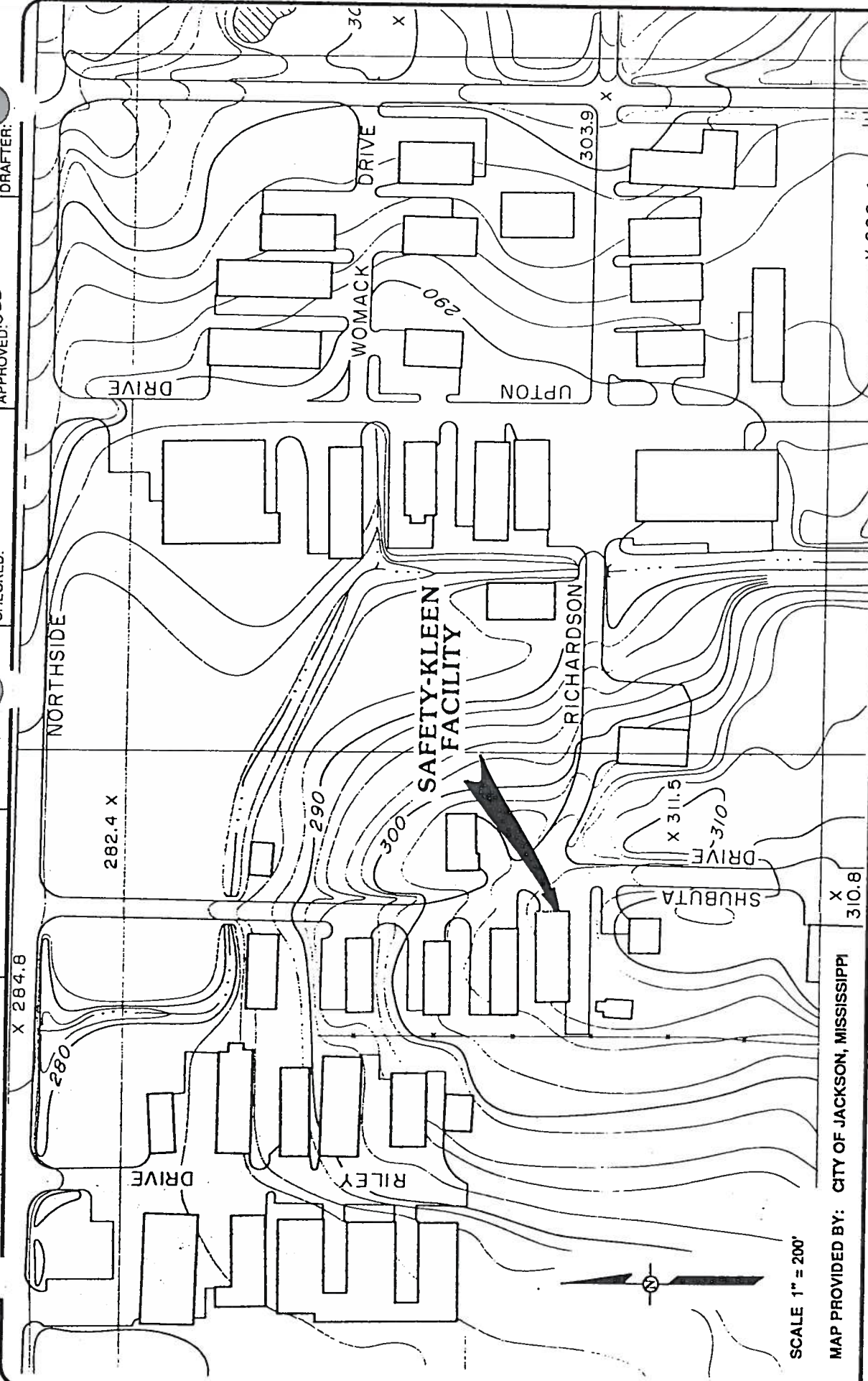
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FILE NO.: MAC-A

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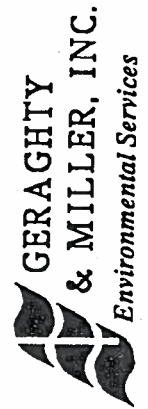
CHECKED:

APPROVED: *See 8-14-92* DRAFTER:



SCALE 1" = 200'

MAP PROVIDED BY: CITY OF JACKSON, MISSISSIPPI



SITE VICINITY TOPOGRAPHIC MAP  
SAFETY-KLEEN CORPORATION  
Jackson, Mississippi

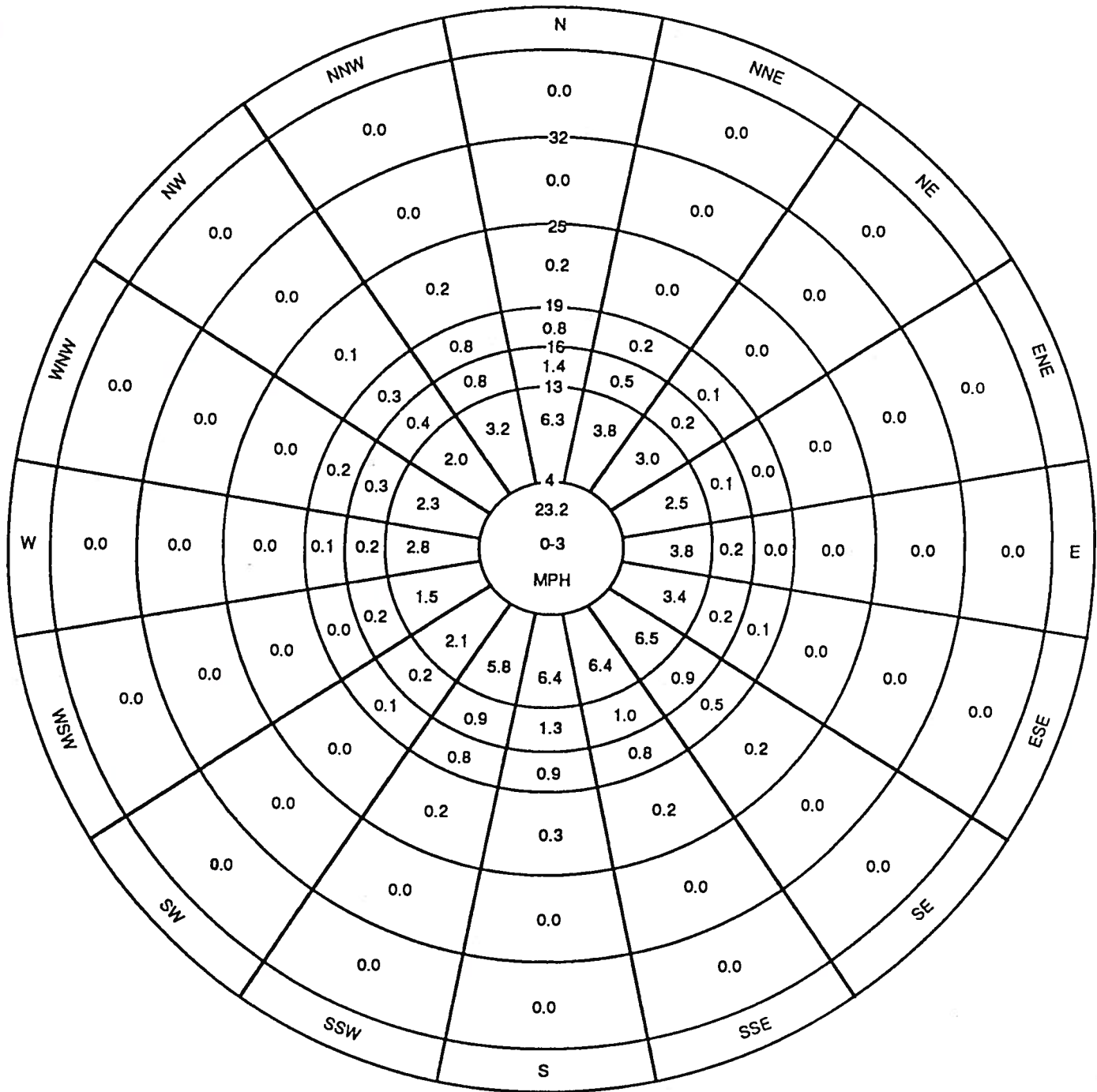
FIGURE

C.3

GERAGHTY & MILLER, INC.

**Appendix C**  
**Attachment C.4**  
**Wind Rose**

DWG 6-16-92 PRJCT NO.: LA576.01 FILE NO.: MAC-A DRAWING: .4 CHECKED: APPROVED: *Sec 8-14-92* DRAFT .M.



NOT TO SCALE



**WIND ROSE**  
 SAFETY-KLEEN CORPORATION  
 Jackson, Mississippi

FIGURE  
**C.4**

**Appendix C**

**Attachment C.5**

**Water System Map**

Permit Attachment II-7  
Contingency Plan

## **4.0 CONTINGENCY PLAN**

### **ABSTRACT**

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

**RESPONSIBILITIES:** The emergency coordinator or the alternate(s) are responsible for implementing the plan during an emergency.

**EMERGENCY COORDINATOR:** The emergency coordinator and alternate emergency coordinator(s) for the Jackson Service Center are designated Safety-Kleen employees who have been trained for these positions.

**EMERGENCY NOTIFICATIONS:**

(See Appendix F for Emergency Agencies and phone numbers)



## **4.0 CONTINGENCY PLAN**

### **4.1 PURPOSE**

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

The Contingency Plan is to be carried out immediately whenever there is a release of hazardous material which could threaten human health or the environment.

### **4.2 EMERGENCY COORDINATOR RESPONSIBILITIES**

The emergency coordinator, or the alternate(s), is responsible for implementing the Contingency Plan during an emergency; however, all employees must be familiar with the procedures in this plan and are responsible for proper implementation of the plan should the emergency coordinator, or the alternate(s), be unavailable.

The emergency coordinator, and the alternate(s), should be familiar with all aspects of this Contingency Plan, the operations and activities at the service center, the location and characteristics of materials handled, the location of all records within the service center and the service center layout. In addition, these coordinators have the authority to commit the resources necessary to carry out the Contingency Plan. The emergency coordinator and the alternate emergency coordinator(s) at the Jackson, Mississippi Service Center are adequately trained to respond in the event of an emergency. Their names, addresses, telephone numbers, as well as the office telephone number, are listed in Attachment F.1. In addition, Attachment F.2 lists the typical functions of employees during an emergency.

#### **4.2.1 Responsibilities During an Emergency**

Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the alternate(s) when the emergency coordinator is not available) must immediately:

- a. Notify all personnel located in the facility;
- b. Notify Safety-Kleen's Environmental Response Coordinators at the 24-hour telephone number, which is noted in Appendix F and
- c. Notify appropriate state or local agencies with designated response roles, if necessary.

Whenever there is a release, fire, or explosion, the emergency coordinator, or the alternate(s), must immediately try to identify the character, exact source, amount, and extent of the incident.

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

The emergency coordinator and the alternate(s) have been trained on the implementation of this Contingency Plan. They have available to them references such analytical data and/or the Material Safety Data Sheets to help them make decisions during an emergency.

During an emergency, the emergency coordinator, or the alternate(s), must take all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other locations where hazardous waste is stored at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and

removing or isolating containers.

#### **4.2.2 Remedial Action Responsibilities**

If the plan is implemented, the emergency coordinator, or the alternate(s), must contact the Mississippi Department of Environmental Quality (MSDEQ) and Safety-Kleen's Incident 24-Hour Response Emergency Coordinator(s). Should there be any question as to whether the plan should be implemented (i.e., a problem is suspected but cannot be confirmed) the Environment, Health and Safety Management can be contacted and assistance requested. The treatment, storage and/or disposal of the recovered waste, contaminated soil or surface water that results must be arranged by Safety-Kleen or its designated representative and carried out as expeditiously as possible.

The emergency coordinator, or the alternate, must ensure that in the affected area(s) of the service center:

- a. No substance that may be incompatible with the released material is brought on-site until cleanup procedures are completed; and
- b. All emergency equipment listed in Appendix F cleaned and fit for their intended use before operations are resumed.

#### **4.2.3 Reporting Responsibilities**

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

- a. If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities; and
- b. The coordinator must notify Safety-Kleen's Environmental 24-Hour Incident

Response Coordinator(s) and the Mississippi MSDEQ, including the following items:

1. Name and telephone number of the notifier;
2. Name and address of the service center;
3. Time and type of incident (e.g., release, fire);
4. Name and quantity of material(s) involved, to the extent known;
5. The extent of injuries, if any; and
6. The possible hazards to human health or the environment outside the service center.

Safety-Kleen will notify the appropriate state and local authorities that the facility is in compliance with Section 4.2.2 before operations are resumed in the affected area(s) of the service center.

The emergency coordinator, or the alternate(s), must document the time, date, and details of any incident that requires the implementation of the Contingency Plan. Within 15 days of the incident, Safety-Kleen will submit a written report on the incident to the Mississippi MSDEQ. A copy of this report will be kept on file as part of the operating record. The report will include the following:

- a. Name, address, and telephone number of the owner or operator;
- b. Name, address, and telephone number of the service center;
- c. Date, time, and type of incident (e.g., fire, explosion);

- d. Name and quantity of material(s) involved;
- e. The extent of injuries, if any;
- f. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- g. Estimated quantity and disposition of recovered material that results from the incident.

#### **4.2.4 Response Order**

Based on the emergency response procedures described above, the order of response during an emergency that requires the implementation of the Contingency Plan, is as follows:

- a. The person who discovers the spill reports to the emergency coordinator, or the alternate(s);
- b. The emergency coordinator, the alternate(s), or designee contacts the Mississippi MSDEQ and Safety-Kleen's Environmental 24-Hour Response Coordinator(s); and
- c. Safety-Kleen's Environmental Response Coordinators will contact the Emergency Response Contractor.

#### **4.2.5 Government Agencies and Local Authorities to be Notified**

During an emergency that requires the implementation of the Service Center's Contingency Plan, the

following government agencies and local authorities may be contacted, as necessary:

<u>Agency or Authority</u>	<u>Rationale</u>
Police Department	Notify if there is imminent danger to human health.
Fire Department	Notify if there is a fire, uncontrolled spill, or other imminent danger.
Hospital	Notify if there are any injuries.
Mississippi MSDEQ	Report releases and fires.
Emergency Response Contractor	Call to assist with remedial action after a release.
National Response Center	Report major releases

Arrangements have been made to familiarize the police department, fire department and local emergency response teams with the layout of the service center, the properties of hazardous materials handled and associated hazards, locations where service center personnel normally work, entrances to and roads inside the service center, and possible evacuation routes. Arrangements have also been made to familiarize the local hospital with the types of injuries or illnesses which could result from fires, explosions, or releases at the service center. Copies of the letters to the local police department, fire department and hospital are presented in Attachment F.3.

#### **4.3 EMERGENCY RESPONSE PROCEDURES**

Response actions to be taken in specific emergency situations are described in the sections which follow. Employees must assess the possible hazards to human health or the environment resulting

from a release or fire by visually inspecting the area, reviewing the analytical data and/or Material Safety Data Sheets for the material released and estimating the extent of the release and identifying the media to which it was released (e.g., soil, water and/or air).

#### **4.3.1 Minor Spills**

If a spill should occur while emptying parts washer waste into a loading unit or filling containers with parts washer product at the return and fill station, it will be contained in the secondary containment at the base of the return and fill station, remedial action will not be necessary. Should the spill occur outside the containment, different actions must be taken depending on whether the spill occurs on a paved or unpaved area:

- a. If the solvent spills on a paved area, it must be collected with sorbent material. The sorbents will be collected, containerized and transported to the Safety-Kleen Recycle Center or alternate disposal facility for proper disposal. Should water (such as rain fall) be present when a spill occurs, all of the liquid will be treated as a hazardous waste and pumped into the parts washer waste storage tank. The secondary containment in the container storage and return and fill areas can be emptied by hand equipment, pump, wet/dry vacuum, and/or sorbent material, which ever is the most effective. Detergent can be used as needed to clean the area. All material collected from spill cleanups will be treated as hazardous waste.
- b. If the solvent spills on an unpaved area, the free material must be collected with sorbent material. The sorbent material and any contaminated soil must be collected, containerized, and transported to a Safety-Kleen Recycle Center, or alternate disposal facility, for proper disposal.

If a spill occurs while moving or delivering containers outside of the warehouse, the response actions

described in "a" and "b" above normally are followed. Damaged or leaking containers must be overpacked or their contents transferred to containers of sound integrity. Spills inside the warehouse will be prevented from contaminating the environment by the concrete floor and the secondary containment. In the event of a spill indoors, the doors and windows should be opened to improve the ventilation in the confined area. If material is spilled in an area which is not electrically classified for such material, ensure that all sources of ignition (e.g., thermostats or light switches) are left in the same position (either on or off) as at the time of the spill. Then the worker will enter the area wearing gloves, aprons, safety glasses, and/or appropriate respiratory equipment, collect the liquid, containerize it and return it to storage. Manifests, bills of lading, labels, inspection records, operating log, etc. will be used when determining the identity of released material.

Cleanups are completed when the workers have cleaned themselves and the emergency equipment. If the spill is of a reportable quantity, Mississippi MSDEQ will be notified.

#### **4.3.2 Major Spills**

Any spill which cannot be completely remediated using the methods described in "a" and "b" of Section 4.3.1 is a major spill. A major spill is usually the result of a vehicular accident, tank overfilling, equipment failure (such as a tank failure or tank system leak) or a fire. Spilled material which escapes collection can contaminate soil, surface water and ground water, sanitary sewer systems and storm sewer systems. Emergency response to this type of spill should be as follows:

- a. Assist any injured people;
- b. Stop the flow of material, if possible;
- c. Retain, contain or slow the flow of the material if it can not be stopped;
- d. Immediately call the local Fire and Police Departments, and report to the



emergency coordinator (or the alternate(s)), the Mississippi MSDEQ and Safety-Kleen's 24-Hour Emergency Response Coordinators;

- e. Immediately deploy the appropriate emergency response equipment and recover the spilled solvent to the extent possible to reduce property and environmental damage. Start recovery operations immediately; and
- f. Contact the spill cleanup contractor and request clean up assistance.

The emergency coordinator, or the alternate(s), shall report any incident as soon as possible to Safety-Kleen's Emergency Response Coordinators using the 24-hour telephone number shown on the Emergency Information sheet in Appendix F. As determined by Safety-Kleen's Emergency Response Coordinators, the emergency coordinator, or the alternate(s), shall call an emergency cleanup response contractor, if it is deemed necessary, and report the incident to the Mississippi MSDEQ and the National Response Center (both numbers shown on the Emergency Information sheet in Appendix G). Otherwise Safety-Kleen's Environmental Response Coordinators will contact the proper authorities.

Spills will be controlled and remediated to the fullest extent possible, by Safety-Kleen personnel. Personnel must not take health or safety risks; if there is any doubt as to whether a particular action is unsafe, it must be avoided. The source of a release must be stopped by turning off pumps, closing valves, righting tipped containers or taking other appropriate actions. If the flow cannot be stopped, a berm should be formed by shoveling dirt or sorbent material around the free liquid to hold it in one place or at least direct it to the area where it will do the least amount of damage (e.g., the secondary containment area in the warehouse or the tanker truck loading/unloading area).

The free liquid can be collected from the ground or affected surface water using a wet/dry vacuum or hand pump and sorbent material. The liquids must be containerized and/or added to a tank or container of good integrity.

The affected area must be cleaned and decontaminated. If it is a paved or metal surface, this can be done using a detergent solution.

If large amounts of soil or the ground water are, or may be contaminated, a work plan to perform an extent of contamination study and determine appropriate remediation activities must be developed and approved by the Mississippi MSDEQ. A plan to verify that remediation has been effective must also be developed and approved by the Mississippi MSDEQ.

The person reporting a spill should be prepared to report the information listed in Section 4.2.3.b. The person reporting should also describe the material spilled and, if possible, some estimate of the amount, and the containment status and specify any equipment needed.

Contaminated material (including soil) resulting from remedial actions for major spills will be removed and disposed of at a properly permitted treatment or disposal service center. Any damaged equipment (including tanks) will be repaired or replaced before operations resume.

A written report is generated from incidents/spills that are reported to Safety-Kleen's 24-Hour Emergency Incident Coordinators. The report is reviewed with branch personnel in an effort to prevent similar spills from occurring in the future. Operational changes may be made to prevent the occurrence of a similar incident. A copy of this report will be kept on site at the service center.

#### **4.3.3 Fire Control Procedures**

If a fire occurs, personnel must act quickly to put out the fire before it spreads. If it cannot be extinguished with one fire extinguisher, immediately evacuate the service center and call the fire and police departments. It is Safety-Kleen's policy that personnel only respond to incipient fires; that is, those which can immediately be extinguished using one fire extinguisher. Any fire which cannot be brought under control immediately or which has the potential to become uncontrollable warrants implementation of the evacuation plan.

A parts washer waste fire can best be extinguished with foam. If foam is not available, sweeping the fire with water fog can cool it, directing the water spray to push the flames into a confined area, if possible. The flame should not be extinguished until the flow of the solvent has been stopped. Then attention should be directed immediately on extinguishing the flame.

The wastes stored at the service center can generate poisonous gases when exposed to high heat. Branch personnel and local authorities must be aware of the proper response, should a fire affect areas where these wastes are stored:

- a. Isolate the hazard area and deny entry to unauthorized personnel;
- b. Stay upwind and keep out of low areas;
- c. Ventilate closed spaces before entering them;
- d. Wear appropriate breathing apparatus and protective clothing;
- e. Evacuate area endangered by the gas, if necessary; and
- f. Cool the area and containers with water until well after the fire has been extinguished.

The above information is from the U.S. Department of Transportation (DOT) "Emergency Response Guidebook"

A fire in the tank or container storage area can best be extinguished by a dry chemical, foam, carbon dioxide, water fog or water spray.

Explosions may result in the spread of fire, unstable structures and other hazardous conditions at the

service center. Therefore, the site must not be reentered until the fire department has determined that it is safe to do so.

Actions must be taken to ensure that fires, explosions or releases do not occur or reoccur. These include removing the source of the problem, repairing or remediating the source of the problem, cooling areas subject to fires and explosions, and replacing service center equipment.

Paint wastes can generate carbon monoxide and other poisonous gases. Therefore, it is important to wear the appropriate breathing apparatus and protective clothing in the affected area. If a fire in or near the paint waste storage area of the warehouse occurs:

- a. Isolate the area and deny entry to unauthorized personnel;
- b. Stay upwind and keep away from low areas; and
- c. Wear protective clothing and appropriate respiratory equipment.

A dry chemical, carbon dioxide or foam will best extinguish the fire. Cool the area and containers with water until well after the fire has been extinguished.

#### **4.4 EVACUATION PLAN**

Clearly marked exits exist in the warehouse and office areas and employees are trained to be aware of all potential escape routes, as depicted on the figure in Attachment F.6. The evacuation signal will either be a verbal or loudspeaker announcement describing the hazard and indicating the need for evacuation. An evacuation is necessary when a release, fire, and/or explosion which has the potential to generate irritating vapors or deplete oxygen has occurred or has the potential to occur. In addition, a release, fire or explosion which has the potential to injure personnel through physical contact or by damaging structures will necessitate an evacuation.

When an uncontrolled release, fire, or explosion has occurred, all personnel are to be evacuated from the area and assemble across Richardson Drive to assure that all personnel are accounted for and out of the hazardous area. The fire department must be notified at the time of evacuation either from a safe on-site building or from a neighboring facility

#### **4.5 ARRANGEMENTS WITH EMERGENCY RESPONSE CONTRACTORS**

A potential emergency response contractor is identified on the Emergency Information sheet (Attachment F.1). This contractor or an equally-qualified responder will be contacted to provide emergency assistance during a release and/or cleanup.

Copies of the current contingency plan are made available to the applicable emergency response agencies. Safety-Kleen requests that each organization keep the contingency plan on file and notify Safety-Kleen if they refuse to enter into an agreement or cannot comply with the procedures outline within this plan. Documentation of such refusal is kept on file. The agencies are invited to visit the service center to become more familiar with the site and the general location of hazardous material storage. Material Safety Data Sheets of the on-site materials are provided for the purpose of alerting local hospitals of the type of ailments that may be encountered in a release or fire at the service center. Documentation of the agreements that Safety-Kleen has with the local authorities is presented in Attachment F.3.

#### **4.6 POLLUTION INCIDENT HISTORY**

There are no records of a major pollution incident having occurred at this service center.

#### **4.7 IMPLEMENTATION SCHEDULE**

Any discrepancies or deficiencies found during the routine service center inspection are normally

corrected expeditiously to ensure that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or an accident has already occurred, remedial action should be taken immediately. The branch (service center) manager has the overall responsibility for remediating any discrepancies found during the routine inspection, and will consult with the appropriate persons to design an implementation schedule for the remedial action.

#### **4.8 AVAILABILITY AND REVISION OF THE CONTINGENCY PLAN**

This plan and all revisions to the plan are kept at the service center and regularly updated throughout the operating life of the service center. Copies of this document are provided to local authorities and organizations that may provide emergency services to the Jackson, Mississippi Service Center. In addition, this plan and all revisions to the plan are made readily available to employees working at the service center.

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

- a. The service center permit is modified to allow new process wastes to be stored or treated, or applicable regulations are revised;
- b. The list or location of emergency equipment changes;
- c. The service center changes in its design, construction, operation maintenance, or other circumstances in a way that increases the potential for fires, explosions, or releases of hazardous wastes or hazardous constituents;  
or
- d. The names, addresses, or phone numbers of the emergency coordinator or the alternate change;

f. The plan fails when implemented in an emergency.

Permit Attachment II-8  
Closure Plan



## **6.0 CLOSURE PLAN**

### **6.1 GENERAL INFORMATION**

**LOCATION ADDRESS:**      **Safety-Kleen Systems, Inc.**  
                                 **120 Richardson Drive**  
                                 **Jackson, MS 39209**

**U.S. EPA I.D. NO:**              **MSD 000 776 765**

This closure plan provides for the closure of the hazardous waste management units, at the SK Jackson, MS facility.

**The hazardous waste units which require closure include the following:**

- a) Tank Storage – one 4,000-gallon (approximately) and one 8,000-gallon (approximately) aboveground storage tanks and associated ancillary equipment with a 1,045 square feet (approximately) concrete dike area for secondary containment
- b) Return and Fill Station – one return and fill dock structure with secondary containment and 2 drum washers with a capacity of 374-gallons each.
- c) Container Storage – one approximately 970 square feet container storage area with a total storage capacity of 4,464 gallons.
- d) Flammable Storage Shelter - one storage shelter with a total storage capacity of 2,184 gallons.

## **6.2 PURPOSE**

The Jackson, MS service center operates as a storage facility for hazardous wastes. The hazardous waste management units (HWMUs) must be closed in accordance with the closure requirements of 40 CFR 264.110 through 40 CFR 264.115, as adopted by MSDEQ. Closure of the facility will be carried out in accordance with the steps outlined in this plan and applicable Federal and State regulations. An estimated closure schedule and closure cost estimate are attached. The closure plan and closure cost estimate, as part of the permit, will be kept on site. Safety-Kleen will remediate all hazardous wastes from the facility to a level that is protective of human health and the environment, thereby achieving clean closure and eliminating the need for further maintenance and care. Upon completion of closure activities, the need for post-closure maintenance will be minimized or eliminated. The facility is expected to close in the year 2030.

SK has developed this generalized closure plan for decontamination of the HWMUs at the site. The closure plan includes the following:

- The estimated expected year of closure and a closure schedule.
- An estimate of the maximum inventory of waste in storage at any time during the active life of the facility for development of the closure cost estimate.
- Notification procedures.
- A description of how and when the facility will be partially and/or finally closed.
- A description of waste characterization procedures to be implemented during closure.
- A description of decontamination procedures to be implemented during closure.
- Procedures for certification of closure activities by SK and an independent professional engineer.

### **6.3 MAXIMUM INVENTORY OF WASTES**

The maximum containerized waste inventory at the SK Jackson, MS facility waste management units is:

- a) Tank Storage – one 4,000-gallon (nominal) and one 8,000-gallon (nominal) aboveground storage tanks, associated ancillary equipment, and concrete dike area for secondary containment and
- b) Return and Fill Station - one return and fill dock structure with secondary containment and 2 drum washers with a capacity of 374-gallons each.
- c) Container Storage – one approximately 970 square feet container storage area with a total storage capacity of 4,464 gallons.
- d) Flammable Storage Shelter - one storage shelter with a total storage capacity of 2,184 gallons.

### **6.4 NOTIFICATION AND SCHEDULE FOR CLOSURE**

SK will remove all hazardous wastes and residuals from the facility to levels protective of human health and the environment and will therefore, eliminate the need for further maintenance and care. The estimated date of facility closure is 2030.

SK will notify the Department in writing of any intent to close the facility at least 45 days before SK begins full facility closure. The following general requirements apply to facility closure:

- As required by 40 CFR 264.113 (b), the closure will be completed within 180 days of the receipt of the final volume of hazardous waste, and/or receipt of Agency approval, or unless an extended closure period is requested by SK and approved by the Agency.
- Upon completion of final closure, Certification of Closure, prepared and certified by both an independent registered professional engineer and SK, will be submitted to the Agency.

- If the facility permit is modified, this plan will also be amended to reflect those modifications, as appropriate. The request for modification and subsequent modified closure plan will be submitted to the Agency for acknowledgment and approval.

## **6.5 SECURITY**

During the performance of the closure activities, SK will maintain site and hazardous waste management security measures. These measures will include site security, fencing and warning signs. Security measures will be maintained until decontamination activities are completed.

## **6.6 RCRA UNIT CLOSURE ACTIVITIES**

Partial or facility closure will be implemented in accordance with this plan and any subsequent modifications. The contractor selected to implement closure will also be required to prepare a health and safety plan in accordance with applicable regulations for their personnel. The health and safety plan shall be kept on-site during the closure activities.

### **6.6.1 ABOVEGROUND TANK AND ASSOCIATED PIPING**

The aboveground storage tanks are situated within a concrete secondary containment area. At facility closure or partial closure (i.e. closure of a tank unit) the following will generally be necessary to remove hazardous waste and waste residues: 1) waste characterization, 2) opening of the tank and removal of wastes, 3) decontamination of the tank interior and piping, and 4) decontamination of the containment area, unless other permitted tanks remain. These procedures are briefly described below.

#### **6.6.1.1 WASTE CHARACTERIZATION**

To confirm that the waste contained in the waste tanks is consistent with waste codes identified for this unit in the permit, the following procedure will be followed if previous characterization information or generator knowledge is unavailable:

- a) One sample will be collected from each waste tank and submitted for TCLP volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and the eight RCRA metals.
- b) The results of analyses will be compared to the permit defined waste codes to verify appropriate an appropriate permitted hazardous waste TSDF for reclamation and/or disposal

#### **6.6.1.2 OPENING OF THE TANK AND REMOVAL OF WASTE**

To safely open the tank and remove the waste material the following activities will be conducted:

- a) Waste material from the tank will be removed using a tanker truck pump (for used solvent), vacuum truck (for heavy sludge) or similar equipment and transported to a permitted hazardous waste TSDF for reclamation and/or disposal.
- b) Following removal of free-liquid wastes to the extent practicable, the aboveground waste tank will be entered to remove residual waste and sludge from the bottom of the tank. Depending on the quantity and consistency of residual wastes, it may be removed using shovels, squeegees etc, and transferred to drums, or may be removed with a pump during tank decontamination (described below).

#### **6.6.1.3 TANK DECONTAMINATION PROCEDURES**

Once residual wastes are removed, the tank and piping will be decontaminated. Decontamination procedures will be generally consistent with the following:

- a) The tank interior will be washed with a detergent-water solution and high-pressure spay. The interior may also be scraped and/or squeegeed to remove residual waste material. Pressure washing will continue until the tank interior is visually clean, and then triple rinsed. The quantity of wash water will be kept to a minimum to reduce the amount required for treatment/disposal. It is anticipated that approximately 700 gallons of wash/rinse water will be generated for each during tank decontamination activities (estimate includes piping and ancillary equipment).

- b) Decontamination water and residual wastes that accumulate at the bottom of the tank will be removed using a remote pump, buckets, or similar, and transferred to either a vac truck, tanker truck or into containers.
- c) The decontamination wash water and residual waste from the tank will be managed as a hazardous waste and transported for treatment/disposal at an appropriately permitted TSDF, or characterized as non-hazardous waste in accordance with applicable regulations.
- d) Piping and appurtenant equipment may be flushed prior to or during residual waste removal for the tank and/or return/fill station. Piping and appurtenant equipment will be decontaminated with a detergent-water solution and high-pressure spray.
- e) Depending on the disposition of the tank at closure, sampling of the final rinsate may be required. If the tank will be reused at the existing location or at an offsite location, a rinsate sample will be collected from the final rinse of the tank interior. If collected, the rinsate sample will be analyzed for VOCs, SVOCs, and the eight RCRA metals using an appropriately certified laboratory. The unit will be considered adequately decontaminated when the constituents in the rinsate sample are below applicable risk-based standards.
- f) If the tank and piping will be processed as scrap metal following decontamination [i.e. the decontaminated structures no longer meet the definition of solid or hazardous waste in 40 CFR 261], rinsate sampling will not be required.

#### **6.6.1.4 DECONTAMINATION OF THE TANK CONTAINMENT AREA**

At the time of facility closure the tank containment area will be inspected and decontaminated in accordance with the following general procedures. Unless otherwise specified, the decontaminated containment structure will be left in place at the time of closure.

- a) The tank containment area dike and slab area will be inspected by an independent Professional Engineer for the presence of cracks, fissures, missing seals, etc. If found,

visible cracks or gaps in the containment shall be sealed prior to commencement of cleaning to prevent migration of rinsate outside of the containment area. In addition, if unsealed cracks are fully penetrating, the underlying soil will be sampled during closure as described below.

- b) The containment dike will be swept to remove loose debris, then washed with a detergent-water solution and high-pressure spray and then triple rinsed. The quantity of wash water will be kept to a minimum to reduce the amount required for treatment/disposal. Decontamination of the concrete will be repeated as necessary, until the clean levels have been met. It is anticipated that no more than 250 gallons of wash/rinse water will be generated during decontamination of the tank containment area.
- c) A sample of the final rinsate will be collected and analyzed for similar constituents as for the tank system, described above. The results of the rinsate analysis will be used to verify effective decontamination of the containment area.
- d) The decontamination wash water will either be managed as a hazardous waste and transported for treatment/disposal at an appropriately permitted TSDF or characterized as non-hazardous waste and treated or disposed in accordance with applicable regulations.
- e) A minimum of two soil samples will be collected. If the tank farm will continue to be used, soil samples will be collected from immediately outside the containment structure in order to preserve its integrity. If the tank farm is taken out of service, soil will be sampled from beneath the containment structure. Soil samples will be analyzed in accordance with applicable requirements, and as described below in the sampling plan.
- f) As an alternative to leaving the containment in place for reuse, the decontaminated concrete containment structure may also be demolished and transported offsite for recycling or disposal.

#### **6.6.2 SOLVENT RETURN AND FILL STATION**

The return and fill station is used to collect and return the used parts washer solvents to the waste storage tank via the drum washer unit(s). At the time of final facility closure or partial closure the following steps will be conducted:

- a) To confirm that the waste contained in the return and fill station is consistent with waste codes identified for this unit in the permit, one sample will be collected from the drum washer and submitted for TCLP VOCs, SVOCs, and the eight RCRA metals, if previous characterization information or generator knowledge is unavailable. The results of analyses will be compared to the permit defined waste codes to verify appropriate an appropriate permitted hazardous waste TSDF for reclamation and/or disposal.
- b) The sediment in the drum washers will be removed and containerized, labeled, and manifested as a hazardous waste and transported to a permitted hazardous waste TSDF.

The drum washers and the dock area will be decontaminated using a detergent-water solution, high-pressure spray and triple rinsed. It is anticipated that approximately 450 gallons of rinsate will be generated during decontamination of the drum washers and dock area.

- a) Following decontamination, a sample of the final rinsate will be collected from the containment, and from the drum washer(s) if saved for potential reuse. Components of the return/fill that will be scrapped at closure will not require rinsate sampling. (Note that the closure cost estimate includes the cost of scrapping the return and fill station structure). If collected, the rinsate sample will be analyzed for VOCs, SVOCs, and the eight RCRA metals, using an appropriately certified laboratory. The unit will be considered adequately decontaminated when constituents in the rinsate sample are below applicable risk-based standards.
- b) The decontamination wash/rinsate water may be discharged through the appurtenant piping system into the storage tank, which will be subjected to a separate closure procedure as described above or containerized in an appropriate storage device. The wash/rinse water will be managed as a hazardous waste and treated or disposed of at a permitted TSDF or characterized as non-hazardous waste and treated or disposed in accordance with applicable regulations.



- c) The secondary containment at the return and fill will be decontaminated using procedures consistent with those described for the tank containment area. Approximately 250 gallons of wash water are anticipated from decontamination of the containment area.
- d) Following decontamination, the containment will be inspected by an independent Professional Engineer for the presence of cracks, fissures, missing seals, etc. If a breach in the steel containment pan(s) is observed that may have allowed a release, the Professional Engineer will inspect the underlying concrete pad for the presence of cracks, fissures, missing seals, staining, etc. If fully-penetrating cracks are present, the underlying soil will be sampled during closure as described below.

### **6.6.3 CONTAINER STORAGE AREA**

The container storage area is used to store/accumulate containers of used materials (e.g. used parts washer solvent, used immersion cleaner, dry cleaning waste, waste antifreeze, tank or drum washer sediment, paint waste, industrial solvents, or other non-regulated wastes or products). At the time of facility closure or partial closure of the container storage area, waste inventory will be removed and transported under manifest to a permitted hazardous waste TSDF. The contents of the drums will be treated or disposed of at a permitted TSDF.

At the time of facility closure or partial closure, the following steps will be conducted:

- a) To confirm that the waste in the container storage area is consistent with waste codes identified on the container labels, ten percent of the drums will be sampled for TCLP VOCs, SVOCs, and the eight RCRA metals, if previous characterization information or generator knowledge is unavailable. The results of analyses will be compared to the waste codes assigned on the container labels to verify the container labeling.
- b) The secondary containment structure will be inspected and decontaminated using procedures consistent with those described above for the tank secondary containment area. It is anticipated that approximately 250 gallons of rinsate will be generated

during decontamination of the container storage area. The wash/rinse water will be managed as a hazardous waste and treated or disposed of at a permitted TSDF.

- c) A sample of the final rinsate will be collected and analyzed for VOCs, SVOCs and the eight RCRA metals, using an appropriately certified laboratory.
- d) The rinsate sample results will be used to verify the effectiveness of decontamination. Decontamination of the concrete will be repeated as necessary, until the clean levels have been met. The unit will be considered adequately decontaminated when the constituents in the rinsate sample are below applicable risk-based standards.
- e) If the independent Professional Engineer determines that the unsealed cracks are fully penetrating, the underlying soil will be sampled during closure as described below.

#### **6.6.4 FLAMMABLE WASTE SHELTER**

The flammable waste shelter is used to temporarily store flammable wastes. At the time of facility closure or partial closure, waste inventory will be removed and transported under manifest to a permitted hazardous waste TSDF. The contents of the drums will be treated or disposed of at a permitted TSDF. The following steps will be conducted during closure:

- a) To confirm that the waste in the flammable waste shelter is consistent with waste codes identified on the container labels, ten percent of the drums will be sampled for TCLP VOCs, SVOCs, and the eight RCRA metals, if previous characterization information or generator knowledge is unavailable. The results of analyses will be compared to the waste codes assigned on the container labels to verify the container labeling.
- b) The dock area and underlying containment pans will be decontaminated using a detergent-water solution, high-pressure spray and triple rinsed. It is anticipated that approximately 500 gallons of rinsate will be generated during decontamination of the shelter.
- c) Following decontamination, a sample of the final rinsate will be collected from the shelter, unless it will be scrapped. (Note that the closure cost estimate includes the cost to scrap the structure).

- d) The decontamination wash/rinse water will be containerized in an appropriate storage device. The wash/rinse water will be managed as a hazardous and treated or disposed of at an appropriately permitted TSDF.
- e) Following decontamination, the containment will be inspected by an independent Professional Engineer for the presence of cracks, fissures, missing seals, etc. If a breach in the steel containment pan(s) is observed that may have allowed a release, the Professional Engineer will inspect the underlying concrete pad for the presence of cracks, fissures, missing seals, staining, etc. If fully-penetrating cracks are present, the underlying soil will be sampled during closure as described below.

## **6.7 DECONTAMINATION OF CLEANUP EQUIPMENT**

Equipment used during decontamination activities will be cleaned along with and within the respective secondary containment structure. Therefore the anticipated amount of wash water to decontaminate equipment was included in the estimated quantity generated for each unit. Small consumable equipment (e.g. mops, rags, disposable PPE, etc.), which cannot be cleaned will be containerized, managed as a hazardous waste and disposed of at a permitted TSDF, or characterized as non-hazardous waste and treated or disposed in accordance with applicable regulations.

SK does not anticipate that heavy equipment, such as cranes and backhoes, will come into contact with hazardous wastes. For example, a crane may be used to remove the storage tank, but only after the tank has been decontaminated. Therefore, an equipment decontamination area should not be necessary during closure. However, if necessary, heavy equipment will be cleaned by scraping, brushing and/or using a pressure washer with a non-phosphate detergent/water solution with tap water rinse. The wash/rinse water will be containerized and managed as a hazardous waste and disposed of at a permitted TSDF or characterized as non-hazardous waste and treated or disposed in accordance with applicable regulations.

## **6.8 SOIL SAMPLING DURING CLOSURE**

Following closure/decontamination, if the independent Professional Engineer determines based on the inspection procedures described previously that the containment structure was breached in

a manner to allow a potential release to the subsurface, soil samples will be collected from beneath containment area(s) in question. The number of soil samples required at closure will be determined at closure following the engineer's inspection of the respective containment areas. At a minimum two soil samples will be collected from the tank farm as described in Section 6.6.1.4.

In general, if required, soil samples will be collected from immediately beneath cracks or gaps noted by the engineer during inspection of each containment area, which are determined to have the potential for wastes to migrate to underlying soils. It is anticipated that soil samples will be analyzed for VOCs and compared applicable risk-based soil screening standards.

If applicable, samples may also be collected from additional areas of the site for background comparison.

If required, the identification, characterization and remediation of any contamination that may exist beneath the containment areas shall be described in a workplan prepared following receipt of analytical results from any required soil sampling. The workplan will be submitted to the Agency for review and approval.

## **6.9 FACILITY CLOSURE SCHEDULE**

Within 90 days of receiving the final volume of hazardous wastes, SK will remove all hazardous wastes from the site in accordance with the approved closure plan. SK will complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of waste or upon Agency approval of the closure plan and procedures, whichever is later. The Agency may approve a longer period if SK demonstrates that:

- a) The activities necessary to remove waste or close the facility, will of necessity, take longer than 90 days or 180 days, respectively, to complete or the following requirements are met:
- b) The facility has the capacity to receive additional wastes;
- c) There is a likelihood that a person other than SK will recommence operation at the site within one year;

a manner to allow a potential release to the subsurface, soil samples will be collected from beneath containment area(s) in question. The number of soil samples required at closure will be determined at closure following the engineer's inspection of the respective containment areas. At a minimum two soil samples will be collected from the tank farm as described in Section 6.6.1.4.

In general, if required, soil samples will be collected from immediately beneath cracks or gaps noted by the engineer during inspection of each containment area, which are determined to have the potential for wastes to migrate to underlying soils. It is anticipated that soil samples will be analyzed for VOCs and compared applicable risk-based soil screening standards.

If applicable, samples may also be collected from additional areas of the site for background comparison.

If required, the identification, characterization and remediation of any contamination that may exist beneath the containment areas shall be described in a workplan prepared following receipt of analytical results from any required soil sampling. The workplan will be submitted to the Agency for review and approval.

## **6.9 FACILITY CLOSURE SCHEDULE**

Within 90 days of receiving the final volume of hazardous wastes, SK will remove all hazardous wastes from the site in accordance with the approved closure plan. SK will complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of waste or upon Agency approval of the closure plan and procedures, whichever is later. The Agency may approve a longer period if SK demonstrates that:

- a) The activities necessary to remove waste or close the facility, will of necessity, take longer than 90 days or 180 days, respectively, to complete or the following requirements are met:
- b) The facility has the capacity to receive additional wastes;
- c) There is a likelihood that a person other than SK will recommence operation at the site within one year;

- d) Closure of the facility is incompatible with future use of the site. In this case, SK will take all steps necessary to prevent threats to human health and the environment.
- e) Safety-Kleen will complete the closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes. Safety-Kleen may petition the agency for an extension to the closure period to ensure that the facility has achieved clean closure levels that are protective of human health and the environment.

A closure schedule is attached.

#### **6.10 CLOSURE CERTIFICATION**

When closure is completed, SK shall submit to the Agency certification, both by the operator and a qualified independent professional engineer registered in Mississippi, that the facility has been closed in accordance with the approved closure plan. The closure certification will be presented in a Closure Certification Report, which will be prepared in accordance with applicable portions of 40 CFR 264.115, as adopted by MSDEQ. Information contained in the closure report will include a brief site history, site plan, closure field notes, documentation of decontamination procedures, photo-documentation, soil sampling locations (if required), laboratory analytical reports, tabular summaries of analytical results, volumes of wastes removed, copies of waste manifests, etc. Any deviations from the approved closure plan will also be documented in the report. The Closure Certification Report will be submitted within 60 days of completion of the closure activities.

#### **6.11 CLOSURE COST ESTIMATE**

The closure cost estimate for the facility is attached. Unit costs are based on third-party costs to perform closure operations. The closure cost estimate is adjusted annually to reflect inflation, in accordance with and as required by and detailed in 40 CFR 264.142(b) and (c).

#### **6.12 PARTIAL CLOSURE**

Partial closure of any unit will be performed using the procedures described above.

### **6.13 POST CLOSURE**

As discussed in Section 6.2 above, Safety-Kleen will remove all hazardous wastes and residuals from the facility during closure. There are no hazardous waste treatment or disposal units at the Facility. Therefore, a post-closure plan is not required at this time.



Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Br... Service Center, Jackson, MS

6/11/2010

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
<b>1. PROJECT COORDINATION AND SCHEDULING</b>				
<u>Prime Contractor Costs</u>				
- Obtain subcontractor quotes and coordinate activities with subcontractor prior to implementing closure	Project Manager	\$94	10	\$940
- Coordinate scope and schedule of project activities with owner/operator, decontamination contractor, regulatory agencies and analytical laboratory	Project Manager	\$94	10	\$940
- Review facility permit and closure plan	Project Manager Field Engineer	\$94 \$60	6 6	\$564 \$360
- Prepare project/site specific Health and Safety Plan	Health/Safety Specialist	\$80	6	\$480
- Prepare project activity and project status reports	Project Manager	\$94	4	\$376
	Office Expenses	\$100	1	\$100
	Miscellaneous Expenses	\$100	1	\$100
<b>Activity 1. Subtotal</b>				<b>\$3,860</b>
<b>2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE</b>				
<u>Assumptions</u>				
- Waste mineral spirits tanks (2) are full (12,000 gallons)				
- Maximum capacity 155 gallons of sediment per drum washer = 155 x 3 = 465 gallons = 9 - 55 gallon drums				
- One CSA will be closed with maximum capacity of 4,464 gallons = 81 - 55 gallon drums.				
- One Flammable Materials Storage Shelter with maximum capacity of 2184 gallons = 40 -55-gallon drums				
<u>Prime Contractor Costs</u>				
- Mobilize Prime Contractor (round trip = 2)	Project Manager Field Engineer	\$503 \$503	2 2	\$1,006 \$1,006
- Project Management and Supervision and participate in on-site coordination meeting with owner/operator and subcontractors	Project Manager Vehicle (per day) Per diem	\$94 \$50 \$95	8 1 1	\$752 \$50 \$95
- Supervise waste loading activities	Field Engineer Vehicle (per day) Per diem	\$60 \$50 \$95	8 1 1	\$480 \$50 \$95
- Purchase 20 55-gallon drums for drum washer sediment	55-gallon Drums	\$65	9	\$644
<u>Subcontractor Costs</u>				
- Subcontractor mobilization (round trip = 2)	Mobilize	\$1,781	2	\$3,918
- Subcontractor per diem (total project 3 persons x 7 days)	Per Diem	\$95	21	\$2,195
- Subcontractor PPE (includes tyvek, respirator, cartridges, boot, gloves etc for 3-man crew)	Equipment/Consumables	\$1,311	LS	\$1,442
- Transfer tank contents to tankers	Labor/equipment/expenses	\$0.33	12000	\$4,356
- Waste Characterization				
Collect TCLP composite sample from waste MS tanks (2) and R/F	Field Engineer	\$503	3	\$1,509
Collect TCLP samples from 10% of CSA drums (81) and Flam Shelter drums (40)	Field Engineer	\$503	4	\$2,012
Analyze composite sample from ASTs and R/F for TCLP VOCs, SVOCs and RCRA metals	TCLP @ \$800/sample	\$800	3	\$2,400
Analyze composite samples from 10% of drums for TCLP VOCs, SVOCs and RCRA metals	TCLP @ \$800/sample	\$800	12	\$9,680
- Transport waste mineral spirits to a TSD for treatment/disposal				
Assumes 2 tanker trailers required to remove 12,000 gallons (5,000 gallons max each load)				
Estimated cost per mile = 1.81/mile + markup, overhead and profit = \$2.52/mile	Transport 2 trailers x 500 miles	\$2.52	1000	\$2,520
Estimated mileage = 500 miles	TSD @\$0.45/gallon (RS Means)	\$0.45	12000	\$5,400
Estimated disposal/treatment cost (per gallon)				
- Transfer drum washer sediment to drums	Labor/equipment/expenses	\$0.97	465	\$496
- Transfer drums of drum washer sediment to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	2	\$92
- Transfer drums from CSA to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	20	\$824
- Transfer drums from Flammable Materials Storage Shed to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	10	\$407
- Transport drums to TSD for Treatment/Disposal				



Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Brainerd Service Center, Jackson, MS

6/11/2010

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
Assumes 2 trucks to transport drums (84 per truck max)				
Estimated cost per mile = \$2.21/mile + markup, overhead and profit = \$3.06/mile				
Estimated mileage = 500 miles	Transport 2 trailers x 500 miles	\$3.06	1000	\$3,366
Estimated disposal/treatment cost (per drum) (RS Means)	TSD @ \$179/drum (RS Means)	\$179	141	\$25,239
Activity 2. Subtotal				\$70,033

## 3. STORAGE TANK DECONTAMINATION AND REMOVAL

Assumptions:

- The tank, piping and appurtenant equipment are removed and scrapped or left in place for reuse
- Rinsate sampling will be required only if the tanks are not scrapped
- Includes decontamination of the containment area
- 1 day to decontaminate AST and containment, 1 day to remove AST and scrap
- Assumes containment area to remain in place following decontamination
- Assumes 1 rinsate sample required to leave containment in place and 2 samples to leave the tanks in place
- Assumes 2 soil samples required from beneath containment area, if necessary. Need for, and actual number of samples, will be based on engineer's inspection.

Prime Contractor Costs

- Project Management and Supervision

Project Manager	\$94	8	\$752
Vehicle (per day)	\$50	1	\$50
Per diem	\$95	1	\$95

- Supervise Storage Tank Decontamination and Removal Activities

Field Engineer	\$60	16	\$960
Vehicle (per day)	\$50	2	\$100
Per diem	\$95	2	\$190
Air monitoring equipment	\$404	1	\$404

- Collect soil samples

Sample Technician	\$60	4	\$240
Vehicle (per day)	\$50	0.5	\$25
Per diem	\$95	0.5	\$48
Sample supplies/shipping	\$250	LS	\$250

Subcontractor Costs

- Disconnect electrical appurtenances

Labor/equipment	\$750	LS	\$825
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- Decontaminate waste AST, piping and appurtenant equipment  
(unit cost based on pressure washing 760 sq ft total surface area)  
Equipment includes pressure washer and operation costs (per day)

Labor	\$3.65	1520	\$6,103
Equipment	\$187	LS	\$206

- Decontaminate containment area  
(unit cost based on pressure washing 1434 sq ft)  
Equipment includes pressure washer and operation costs (per day)

Labor	\$1.11	1434	\$1,751
Equipment	\$187	LS	\$206

- Remove ASTs from containment (contingent)  
Includes certificate of destruction for ASTs

Labor/equipment/expenses	\$3,801	LS	\$3,981
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Laboratory Subcontractor Costs

- Analyze 3 rinsate sample from ASTs and containment area for VOCs, SVOCs and TAL metals

VOCs @ \$147/sample			
SVOCs @ \$265/sample			
Metals @ \$336/sample			
Total per sample cost	\$748	3	\$2,468

- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)

VOCs @ \$147/sample

6/11/2010

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample			
	Metals @ \$97/sample			
	Preserved Sample Containers @ \$10/sample			
	Total per sample cost	\$519	2	\$1,142
Activity 3. Subtotal				\$19,775

## 4. DECONTAMINATE THE RETURN/FILL STATION

Assumptions:

- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray
- Return/Fill structure and dock area will remain in place
- Rinsate sampling is not necessary because the drum washers will be scrapped
- Assumes 2 soil samples required from beneath containment area, if necessary. Need for, and actual number of samples, will be based on engineer's inspection
- Square footage used for decontamination includes containment

Prime Contractor Costs

- Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise washing of R/F Station and associated components (i.e. piping, pumps, and appurtenances)	Field Engineer	\$60	16	\$960
	Vehicle (per day)	\$50	2	\$100
	Per diem	\$95	2	\$190
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.50	\$25
- 4 hrs total for sampling	Per diem	\$95	0.50	\$48
	Sample supplies	\$250	LS	\$250

Subcontractor Costs

- Decontaminate drum washers, grating, containment and piping (unit cost based on pressure washing 1000 sq ft total surface area)	Labor	\$2.92	1000	\$3,212
Equipment includes pressure washer and operation costs/day	Equipment	\$375	LS	\$413
- Remove drum washers, ancillary equipment and scrap	Labor/equipment/expenses	\$1,800	LS	\$1,980

Laboratory Subcontractor Costs

- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample			
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Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142
Activity 4. Subtotal				\$9,768

## 5. DECONTAMINATE CONTAINER STORAGE AREA

Assumptions:

- One 970s.f. CSA with total capacity of 4464 gallons
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray
- CSA remains in-place following closure
- Decontamination of CSA includes floor, curbing and containment trenches, requires approximately 1 day.
- Any ramps leading into the storage areas (if present) will also be decontaminated.
- Assumes 1 rinsate and 2 soil samples (if necessary). Need for, and actual number of soil samples, will be based on engineer's inspection.

Prime Contractor Costs

- Inspect the floor of each CSA for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise and document decontamination of CSA	Field Engineer	\$60	8	\$480
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Collect sample of final rinsate from each CSA and submit for laboratory analysis	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
	Sample supplies	\$250	LS	\$250

Subcontractor Costs

Decontaminate container storage area (unit cost based on pressure washing 105 sq ft per hour and 970 sq ft)	Labor	\$1.11	970	\$1,184
Equipment includes pressure washer and operation costs (1/2/ day)	Equipment	\$187	LS	\$206

Laboratory Subcontractor Costs

- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$336/sample Total per sample cost	\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample			

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142
Activity 5. Subtotal				\$6,064

## 6. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER

Assumptions:

- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray
- Flammable Materials structure and dock area will remain in place
- Assumes 1 rinsate sample required to leave in place
- Assumes 2 soil samples (if necessary) from beneath containment area. Need for, and actual number of samples, will be based on engineer's inspection
- Square footage used for decontamination includes containment

Prime Contractor Costs

- Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$80	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise washing of structure and containment	Field Engineer	\$60	16	\$960
	Vehicle (per day)	\$50	2	\$100
	Per diem	\$95	2	\$190
- Collect sample of final rinsate from structure and submit for laboratory analysis	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.50	\$25
	Per diem	\$95	0.50	\$48
- 4 hrs total for sampling	Sample supplies	\$250	LS	\$250

Subcontractor Costs

- Decontaminate structure, grating, containment (unit cost based on pressure washing 1000 sq ft total surface area)	Labor	\$2.92	1000	\$3,212
	Equipment	\$375	LS	\$413

Laboratory Subcontractor Costs

- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$336/sample Total per sample cost	\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142

## Activity 6. Subtotal

\$8,924

## 7. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES

Assumptions:

- 700 X 2 gallons wash water generated from decontamination of waste ASTs (including residual sludge) + 250 gallons from the containment = 1650 gallons = 30 drums
- 450 gallons wash water generated from decontamination of the return/fill structure, and 250 gallons for the containment = 700 gallons = 13 drums
- 500 gallons of wash water generated from decontamination of CSA = 10 drums
- 500 gallons of wash water generated from decontamination of Flammable Materials Storage Shelter = 10 drums
- PPE, plastic sheeting, consumables contained in 5 drums

Prime Contractor Costs

- Ensure drums are properly labeled, coordinate pick up and disposal	Project Manager	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Purchase 55-gallon drums	Drums @ \$65 each	\$65	5	\$358

Subcontractor Costs

- Transport wash water to a TSD for treatment/disposal				
Assumes 1 tanker trailer required to remove 3350 gallons (5,000 gallons max each load)				
Estimated cost per mile = 1.81/mile + markup, overhead and profit = \$2.52/mile				
Estimated mileage = 500 miles	Transport 2 trailers x 500 miles	\$2.52	500	\$1,260
Estimated disposal/treatment cost (per gallon)	TSD @ \$0.40/gallon (RS Means)	\$0.40	3350	\$1,340

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
- Load Drums for Transport with forklift (unit is based on total drums divided by 4/pallet)	Labor/equipment/expenses	\$37	2	\$81
- Transport drums to TSD for Treatment/Disposal Assumes 1 truck to transport 5 drums (84 per truck max) Estimated cost per mile = \$2.21/mile x overhead, profit and markup = \$3.06/mile Estimated mileage = 500 miles	Transport 1 trailer x 500 miles	\$3.06	500	\$1,530
Estimated disposal/treatment cost/drum for rinsate	TSD (based on ETC rate)	\$107	0	\$0
Estimated disposal/treatment cost for PPE drums (assumed haz to landfill)	TSD (based on ETC rate)	\$100	5	\$500
Activity 7. Subtotal				\$5,966
<b>8. CLOSURE CERTIFICATION REPORT</b>				
<u>Assumptions:</u>				
- Closure certification report signed by a State Registered P.E. and owner/operator				
- Closure results verify clean closure				
<u>Prime Contractor Costs</u>				
- Compile field notes, photographs, manifests and other documentation	Project Manager	\$94	4	\$376
	Field Engineer	\$60	8	\$480
- Compile any rinsate, and/or soil sample data into summary tables	Project Manager	\$94	8	\$752
	Field Engineer	\$60	8	\$480
- Prepare Closure Certification Report	Project Manager	\$94	20	\$1,880
	Field Engineer	\$60	8	\$480
- Prepare closure certification statement	Project Engineer	\$94	4	\$376
- Office Expenses	Drafting/Clerical	\$42	4	\$168
	Miscellaneous/Copying/Postage	\$150	LS	\$165
Activity 8. Subtotal				\$5,157
<b>COST ESTIMATE ACTIVITIES SUMMARY</b>				
1. PROJECT COORDINATION AND SCHEDULING				\$3,860
2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE				\$70,033
3. STORAGE TANK DECONTAMINATION AND REMOVAL				\$19,775
4. DECONTAMINATE THE RETURN/FILL STATION				\$9,768
5. DECONTAMINATE CONTAINER STORAGE AREA				\$6,064
6. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER				\$8,924
7. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$5,966
8. CLOSURE CERTIFICATION REPORT				\$5,157
SUBTOTAL				\$129,547
LOCATION FACTOR for ECHOS RATES				0.75
TOTAL CLOSURE COST ESTIMATE (Adjusted for location)				\$104,945

**Notes:**

- Prime Contractor, Decontamination Subcontractor labor rates, Transportation, Equipment and Analytical rates obtained from Environmental Cost Handling Options and Solutions (RS Means/ECHOS) Environmental Remediation Cost Data, 12th Edition, 2006
- Prime contractor labor rates include overhead (20%), profit (20%) and markup (50%)
- Subcontractor labor rates include overhead (5%) and profit (10%)
- A 10% markup was applied to subcontractor prices
- Assumes waste inventory and decontamination wastes transported to an appropriate TSD Facility, which is assumed to be located within 500 miles (for purposes of estimating mileage only)
- Waste inventory disposal/treatment unit cost obtained from (RS Means/ECHOS) Environmental Remediation Cost Data, 12th Edition, 2006 and includes the low cost for bulk liquids (\$0.45/gallon) based on suitability of mineral spirits for fuel, and average cost (\$179/drum) for drummed wastes
- R/F dumpsters have a transfer capacity to the AST of 375 gallons and a sediment capacity of 155 gallons.

- d) Closure of the facility is incompatible with future use of the site. In this case, SK will take all steps necessary to prevent threats to human health and the environment.
- e) Safety-Kleen will complete the closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes. Safety-Kleen may petition the agency for an extension to the closure period to ensure that the facility has achieved clean closure levels that are protective of human health and the environment.

A closure schedule is attached.

#### **6.10 CLOSURE CERTIFICATION**

When closure is completed, SK shall submit to the Agency certification, both by the operator and a qualified independent professional engineer registered in Mississippi, that the facility has been closed in accordance with the approved closure plan. The closure certification will be presented in a Closure Certification Report, which will be prepared in accordance with applicable portions of 40 CFR 264.115, as adopted by MSDEQ. Information contained in the closure report will include a brief site history, site plan, closure field notes, documentation of decontamination procedures, photo-documentation, soil sampling locations (if required), laboratory analytical reports, tabular summaries of analytical results, volumes of wastes removed, copies of waste manifests, etc. Any deviations from the approved closure plan will also be documented in the report. The Closure Certification Report will be submitted within 60 days of completion of the closure activities.

#### **6.11 CLOSURE COST ESTIMATE**

The closure cost estimate for the facility is attached. Unit costs are based on third-party costs to perform closure operations. The closure cost estimate is adjusted annually to reflect inflation, in accordance with and as required by and detailed in 40 CFR 264.142(b) and (c).

#### **6.12 PARTIAL CLOSURE**

Partial closure of any unit will be performed using the procedures described above.

### **6.13 POST CLOSURE**

As discussed in Section 6.2 above, Safety-Kleen will remove all hazardous wastes and residuals from the facility during closure. There are no hazardous waste treatment or disposal units at the Facility. Therefore, a post-closure plan is not required at this time.

## **Attachment C**



Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Br... Service Center, Jackson, MS

6/11/2010

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
<b>1. PROJECT COORDINATION AND SCHEDULING</b>				
<u>Prime Contractor Costs</u>				
- Obtain subcontractor quotes and coordinate activities with subcontractor prior to implementing closure	Project Manager	\$94	10	\$940
- Coordinate scope and schedule of project activities with owner/operator, decontamination contractor, regulatory agencies and analytical laboratory	Project Manager	\$94	10	\$940
- Review facility permit and closure plan	Project Manager Field Engineer	\$94 \$60	6 6	\$564 \$360
- Prepare project/site specific Health and Safety Plan	Health/Safety Specialist	\$80	6	\$480
- Prepare project activity and project status reports	Project Manager	\$94	4	\$376
	Office Expenses	\$100	1	\$100
	Miscellaneous Expenses	\$100	1	\$100
<b>Activity 1. Subtotal</b>				<b>\$3,860</b>
<b>2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE</b>				
<u>Assumptions</u>				
- Waste mineral spirits tanks (2) are full (12,000 gallons)				
- Maximum capacity 155 gallons of sediment per drum washer = 155 x 3 = 465 gallons = 9 - 55 gallon drums				
- One CSA will be closed with maximum capacity of 4,464 gallons = 81 - 55 gallon drums.				
- One Flammable Materials Storage Shelter with maximum capacity of 2184 gallons = 40 -55-gallon drums				
<u>Prime Contractor Costs</u>				
- Mobilize Prime Contractor (round trip = 2)	Project Manager Field Engineer	\$503 \$503	2 2	\$1,006 \$1,006
- Project Management and Supervision and participate in on-site coordination meeting with owner/operator and subcontractors	Project Manager Vehicle (per day) Per diem	\$94 \$50 \$95	8 1 1	\$752 \$50 \$95
- Supervise waste loading activities	Field Engineer Vehicle (per day) Per diem	\$60 \$50 \$95	8 1 1	\$480 \$50 \$95
- Purchase 20 55-gallon drums for drum washer sediment	55-gallon Drums	\$65	9	\$644
<u>Subcontractor Costs</u>				
- Subcontractor mobilization (round trip = 2)	Mobilize	\$1,781	2	\$3,918
- Subcontractor per diem (total project 3 persons x 7 days)	Per Diem	\$95	21	\$2,195
- Subcontractor PPE (includes tyvek, respirator, cartridges, boot, gloves etc for 3-man crew)	Equipment/Consumables	\$1,311	LS	\$1,442
- Transfer tank contents to tankers	Labor/equipment/expenses	\$0.33	12000	\$4,356
- Waste Characterization				
Collect TCLP composite sample from waste MS tanks (2) and R/F	Field Engineer	\$503	3	\$1,509
Collect TCLP samples from 10% of CSA drums (81) and Flam Shelter drums (40)	Field Engineer	\$503	4	\$2,012
Analyze composite sample from ASTs and R/F for TCLP VOCs, SVOCs and RCRA metals	TCLP @ \$800/sample	\$800	3	\$2,400
Analyze composite samples from 10% of drums for TCLP VOCs, SVOCs and RCRA metals	TCLP @ \$800/sample	\$800	12	\$9,680
- Transport waste mineral spirits to a TSD for treatment/disposal				
Assumes 2 tanker trailers required to remove 12,000 gallons (5,000 gallons max each load)				
Estimated cost per mile = 1.81/mile + markup, overhead and profit = \$2.52/mile	Transport 2 trailers x 500 miles	\$2.52	1000	\$2,520
Estimated mileage = 500 miles	TSD @\$0.45/gallon (RS Means)	\$0.45	12000	\$5,400
Estimated disposal/treatment cost (per gallon)				
- Transfer drum washer sediment to drums	Labor/equipment/expenses	\$0.97	465	\$496
- Transfer drums of drum washer sediment to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	2	\$92
- Transfer drums from CSA to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	20	\$824
- Transfer drums from Flammable Materials Storage Shed to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)	Labor/equipment/expenses	\$37	10	\$407
- Transport drums to TSD for Treatment/Disposal				

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Brainerd Service Center, Jackson, MS

6/11/2010

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
Assumes 2 trucks to transport drums (84 per truck max)				
Estimated cost per mile = \$2.21/mile + markup, overhead and profit = \$3.06/mile				
Estimated mileage = 500 miles				
Estimated disposal/treatment cost (per drum) (RS Means)	Transport 2 trailers x 500 miles	\$3.06	1000	\$3,366
	TSD @ \$179/drum (RS Means)	\$179	141	\$25,239
Activity 2. Subtotal				\$70,033

## 3. STORAGE TANK DECONTAMINATION AND REMOVAL

Assumptions:

- The tank, piping and appurtenant equipment are removed and scrapped or left in place for reuse
- Rinsate sampling will be required only if the tanks are not scrapped
- Includes decontamination of the containment area
- 1 day to decontaminate AST and containment, 1 day to remove AST and scrap
- Assumes containment area to remain in place following decontamination
- Assumes 1 rinsate sample required to leave containment in place and 2 samples to leave the tanks in place
- Assumes 2 soil samples required from beneath containment area, if necessary. Need for, and actual number of samples, will be based on engineer's inspection.

Prime Contractor Costs

- Project Management and Supervision

Project Manager	\$94	8	\$752
Vehicle (per day)	\$50	1	\$50
Per diem	\$95	1	\$95

- Supervise Storage Tank Decontamination and Removal Activities

Field Engineer	\$60	16	\$960
Vehicle (per day)	\$50	2	\$100
Per diem	\$95	2	\$190
Air monitoring equipment	\$404	1	\$404

- Collect soil samples

Sample Technician	\$60	4	\$240
Vehicle (per day)	\$50	0.5	\$25
Per diem	\$95	0.5	\$48
Sample supplies/shipping	\$250	LS	\$250

Subcontractor Costs

- Disconnect electrical appurtenances

Labor/equipment	\$750	LS	\$825
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- Decontaminate waste AST, piping and appurtenant equipment  
(unit cost based on pressure washing 760 sq ft total surface area)  
Equipment includes pressure washer and operation costs (per day)

Labor	\$3.65	1520	\$6,103
Equipment	\$187	LS	\$206

- Decontaminate containment area  
(unit cost based on pressure washing 1434 sq ft)  
Equipment includes pressure washer and operation costs (per day)

Labor	\$1.11	1434	\$1,751
Equipment	\$187	LS	\$206

- Remove ASTs from containment (contingent)  
Includes certificate of destruction for ASTs

Labor/equipment/expenses	\$3,801	LS	\$3,981
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Laboratory Subcontractor Costs

- Analyze 3 rinsate sample from ASTs and containment area for VOCs, SVOCs and TAL metals

VOCs @ \$147/sample			
SVOCs @ \$265/sample			
Metals @ \$336/sample			
Total per sample cost	\$748	3	\$2,468

- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)

VOCs @ \$147/sample

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample			
	Metals @ \$97/sample			
	Preserved Sample Containers @ \$10/sample			
	Total per sample cost	\$519	2	\$1,142
Activity 3. Subtotal				\$19,775

## 4. DECONTAMINATE THE RETURN/FILL STATION

Assumptions:

- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray
- Return/Fill structure and dock area will remain in place
- Rinsate sampling is not necessary because the drum washers will be scrapped
- Assumes 2 soil samples required from beneath containment area, if necessary. Need for, and actual number of samples, will be based on engineer's inspection
- Square footage used for decontamination includes containment

Prime Contractor Costs

- Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise washing of R/F Station and associated components (i.e. piping, pumps, and appurtenances)	Field Engineer	\$60	16	\$960
	Vehicle (per day)	\$50	2	\$100
	Per diem	\$95	2	\$190
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.50	\$25
- 4 hrs total for sampling	Per diem	\$95	0.50	\$48
	Sample supplies	\$250	LS	\$250

Subcontractor Costs

- Decontaminate drum washers, grating, containment and piping (unit cost based on pressure washing 1000 sq ft total surface area)	Labor	\$2.92	1000	\$3,212
Equipment includes pressure washer and operation costs/day	Equipment	\$375	LS	\$413
- Remove drum washers, ancillary equipment and scrap	Labor/equipment/expenses	\$1,800	LS	\$1,980

Laboratory Subcontractor Costs

- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample			
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Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142
Activity 4. Subtotal				\$9,768

## 5. DECONTAMINATE CONTAINER STORAGE AREA

Assumptions:

- One 970s.f. CSA with total capacity of 4464 gallons
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray
- CSA remains in-place following closure
- Decontamination of CSA includes floor, curbing and containment trenches, requires approximately 1 day.
- Any ramps leading into the storage areas (if present) will also be decontaminated.
- Assumes 1 rinsate and 2 soil samples (if necessary). Need for, and actual number of soil samples, will be based on engineer's inspection.

Prime Contractor Costs

- Inspect the floor of each CSA for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise and document decontamination of CSA	Field Engineer	\$60	8	\$480
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Collect sample of final rinsate from each CSA and submit for laboratory analysis	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
	Sample supplies	\$250	LS	\$250

Subcontractor Costs

Decontaminate container storage area (unit cost based on pressure washing 105 sq ft per hour and 970 sq ft)	Labor	\$1.11	970	\$1,184
Equipment includes pressure washer and operation costs (1/2/ day)	Equipment	\$187	LS	\$206

Laboratory Subcontractor Costs

- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$336/sample Total per sample cost	\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample			

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
	SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142
Activity 5. Subtotal				\$6,064

## 6. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER

Assumptions:

- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray
- Flammable Materials structure and dock area will remain in place
- Assumes 1 rinsate sample required to leave in place
- Assumes 2 soil samples (if necessary) from beneath containment area. Need for, and actual number of samples, will be based on engineer's inspection
- Square footage used for decontamination includes containment

Prime Contractor Costs

- Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)	Project Engineer	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Fill cracks and gaps (if necessary) prior to implementing decontamination activities	Field Engineer	\$80	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Supervise washing of structure and containment	Field Engineer	\$60	16	\$960
	Vehicle (per day)	\$50	2	\$100
	Per diem	\$95	2	\$190
- Collect sample of final rinsate from structure and submit for laboratory analysis	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.5	\$25
	Per diem	\$95	0.5	\$48
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$60	4	\$240
	Vehicle (per day)	\$50	0.50	\$25
	Per diem	\$95	0.50	\$48
- 4 hrs total for sampling	Sample supplies	\$250	LS	\$250

Subcontractor Costs

- Decontaminate structure, grating, containment (unit cost based on pressure washing 1000 sq ft total surface area)	Labor	\$2.92	1000	\$3,212
	Equipment	\$375	LS	\$413

Laboratory Subcontractor Costs

- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and TAL metals	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$336/sample Total per sample cost	\$748	1	\$823
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$147/sample SVOCs @ \$265/sample Metals @ \$97/sample Preserved Sample Containers @ \$10/sample Total per sample cost	\$519	2	\$1,142

## Activity 6. Subtotal

\$8,924

## 7. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES

Assumptions:

- 700 X 2 gallons wash water generated from decontamination of waste ASTs (including residual sludge) + 250 gallons from the containment = 1650 gallons = 30 drums
- 450 gallons wash water generated from decontamination of the return/fill structure, and 250 gallons for the containment = 700 gallons = 13 drums
- 500 gallons of wash water generated from decontamination of CSA = 10 drums
- 500 gallons of wash water generated from decontamination of Flammable Materials Storage Shelter = 10 drums
- PPE, plastic sheeting, consumables contained in 5 drums

Prime Contractor Costs

- Ensure drums are properly labeled, coordinate pick up and disposal	Project Manager	\$94	8	\$752
	Vehicle (per day)	\$50	1	\$50
	Per diem	\$95	1	\$95
- Purchase 55-gallon drums	Drums @ \$65 each	\$65	5	\$358

Subcontractor Costs

- Transport wash water to a TSD for treatment/disposal				
Assumes 1 tanker trailer required to remove 3350 gallons (5,000 gallons max each load)				
Estimated cost per mile = 1.81/mile + markup, overhead and profit = \$2.52/mile				
Estimated mileage = 500 miles	Transport 2 trailers x 500 miles	\$2.52	500	\$1,260
Estimated disposal/treatment cost (per gallon)	TSD @ \$0.40/gallon (RS Means)	\$0.40	3350	\$1,340

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal (Includes 10% Markup for Subcontractors)
- Load Drums for Transport with forklift (unit is based on total drums divided by 4/pallet)	Labor/equipment/expenses	\$37	2	\$81
- Transport drums to TSD for Treatment/Disposal Assumes 1 truck to transport 5 drums (84 per truck max) Estimated cost per mile = \$2.21/mile x overhead, profit and markup = \$3.06/mile Estimated mileage = 500 miles	Transport 1 trailer x 500 miles	\$3.06	500	\$1,530
Estimated disposal/treatment cost/drum for rinsate	TSD (based on ETC rate)	\$107	0	\$0
Estimated disposal/treatment cost for PPE drums (assumed haz to landfill)	TSD (based on ETC rate)	\$100	5	\$500
Activity 7. Subtotal				\$5,966
<b>8. CLOSURE CERTIFICATION REPORT</b>				
<u>Assumptions:</u>				
- Closure certification report signed by a State Registered P.E. and owner/operator				
- Closure results verify clean closure				
<u>Prime Contractor Costs</u>				
- Compile field notes, photographs, manifests and other documentation	Project Manager	\$94	4	\$376
	Field Engineer	\$60	8	\$480
- Compile any rinsate, and/or soil sample data into summary tables	Project Manager	\$94	8	\$752
	Field Engineer	\$60	8	\$480
- Prepare Closure Certification Report	Project Manager	\$94	20	\$1,880
	Field Engineer	\$60	8	\$480
- Prepare closure certification statement	Project Engineer	\$94	4	\$376
- Office Expenses	Drafting/Clerical	\$42	4	\$168
	Miscellaneous/Copying/Postage	\$150	LS	\$165
Activity 8. Subtotal				\$5,157
<b>COST ESTIMATE ACTIVITIES SUMMARY</b>				
1. PROJECT COORDINATION AND SCHEDULING				\$3,860
2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE				\$70,033
3. STORAGE TANK DECONTAMINATION AND REMOVAL				\$19,775
4. DECONTAMINATE THE RETURN/FILL STATION				\$9,768
5. DECONTAMINATE CONTAINER STORAGE AREA				\$6,064
6. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER				\$8,924
7. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$5,966
8. CLOSURE CERTIFICATION REPORT				\$5,157
SUBTOTAL				\$129,547
LOCATION FACTOR for ECHOS RATES				0.75
TOTAL CLOSURE COST ESTIMATE (Adjusted for location)				\$104,945

**Notes:**

- Prime Contractor, Decontamination Subcontractor labor rates, Transportation, Equipment and Analytical rates obtained from Environmental Cost Handling Options and Solutions (RS Means/ECHOS) Environmental Remediation Cost Data, 12th Edition, 2006
- Prime contractor labor rates include overhead (20%), profit (20%) and markup (50%)
- Subcontractor labor rates include overhead (5%) and profit (10%)
- A 10% markup was applied to subcontractor prices
- Assumes waste inventory and decontamination wastes transported to an appropriate TSD Facility, which is assumed to be located within 500 miles (for purposes of estimating mileage only)
- Waste inventory disposal/treatment unit cost obtained from (RS Means/ECHOS) Environmental Remediation Cost Data, 12th Edition, 2006 and includes the low cost for bulk liquids (\$0.45/gallon) based on suitability of mineral spirits for fuel, and average cost (\$179/drum) for drummed wastes
- R/F dumpsters have a transfer capacity to the AST of 375 gallons and a sediment capacity of 155 gallons.

Permit Attachment III-1  
Secondary Containment Plans and Specifications

## **Appendix E**

### **Attachment E.11**

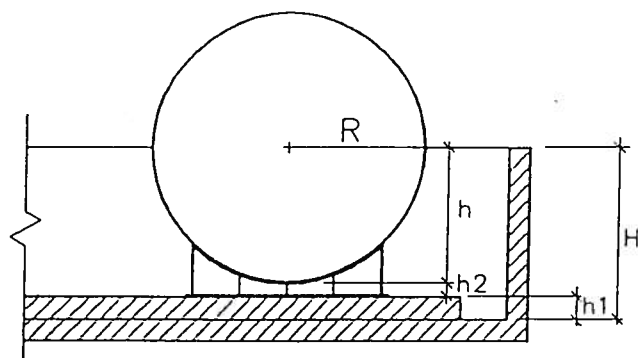
#### **Secondary Containment Calculations**



## SECONDARY CONTAINMENT CALCULATIONS

4 Pack Tank Farm , 4 Horizontal Tanks

REFERENCES: Field Data



HORIZONTAL STORAGE TANK  
FLAT ENDS

NO SCALE

Data :

L1 [tank length]	varies	ft.
L [inside wall length]	34.96	ft.
W [inside wall width]	27.71	ft.
l [pad length]	n/a	ft.
w [pad width]	n/a	ft.
R [tank radius]	4.00	ft.
r [dish radius]	n/a	ft.
H [inside wall height]	2.96	ft.
h1 [pad height]	n/a	ft.
h2 [support height]	varies	ft.
h3 [dish height]	n/a	ft.
h [tank segment height]	varies	ft.
** rainfall	7.7	in.

\* Note: Sump and sloped concrete slab  
volume not included (conservative).

\*\* U.S. Dept. of Comm. Tech. Paper No. 40

Formulas Used :

Tank Sizes (all are horizontal tanks) :

(1) - 8,000 gal. , 8'-0" diam. , L1 = 21.42' , h2 = 0.58' , h = 2.38'
(1) - 8,000 gal. , 8'-0" diam. , L1 = 21.50' , h2 = 0.58' , h = 2.38'
(2) - 4,000 gal. , 8'-0" diam. , L1 = 10.83' , h2 = 0.50' , h = 2.46'

$$\text{TANK SEGMENT HT.} = h = H - h1 - h2$$

$$\text{SUBMERGED DISH HT.} = h(\text{sub}) = h3 + h$$

$$\text{* DIKE CONTAINMENT VOLUME} = (L)(W)(H)(7.48 \text{ gal/cf})$$

$$\text{PAD DISPLACEMENT VOLUME} = (l)(w)(h1)(7.48 \text{ gal/cf})(\text{number of pads})$$

TANK DISPLACEMENT VOLUME

$$\text{vert. tank, dished bottom} = [1/3 (\pi)(h3)^2 (3r - h3) + \pi R^2 h](7.48 \text{ gal/cf})(\text{number of tanks})$$

$$\text{vert. tank, flat bottom} = (\pi R^2 h)(7.48 \text{ gal/cf})(\text{number of tanks})$$

$$\text{vert. tank, cone bottom} = [1/3 (\pi)(h)(R1^2 + R2^2 + R1(R2)) + \pi R^2 h](7.48 \text{ gal/cf})(\text{number of tanks})$$

$$\text{horiz. tank, flat ends} = [R^2 \cos^{-1}((R - h/R) \text{ rad})] - [(R - h)\sqrt{2(R)(h) - h^2}](L1)(7.48 \text{ gal/cf})(\# \text{ of tanks})$$

MISC. DISPLACEMENT VOLUME (Pumps, Piping, Supports, etc.) = 2% of dike volume

$$\text{LOCAL RAINFALL ALLOWANCE (25 yr./24 hr.)} = (\text{rainfall}/12)(L)(W)(7.48 \text{ gal/cf})$$

## SECONDARY CONTAINMENT CALCULATIONS

Calculations :

(a) DIKE CONTAINMENT VOLUME =

$$(34.96)(27.71)(2.96)(7.48) = \underline{(+) 21,449} \text{ gal.}$$

(b) VOLUME OF LARGEST TANK WITHIN DIKED AREA =

Two interconnected U.M.S. tanks

$$4,000 + 8,000 = \underline{(-) 12,000} \text{ gal.}$$

(c) PAD DISPLACEMENT VOLUME =

$$\underline{n/a} \text{ gal.}$$

(d) TANK DISPLACEMENT VOLUME =

$$\begin{aligned} & [ [(4.0)^2 \cos^{-1}((4.0 - 2.38) / 4.0)] - [(4.0 - 2.38) \sqrt{2(4.0)(2.38) - (2.38)^2}] ] (21.42)(7.48)(1 \text{ tank}) \\ & + [ [(4.0)^2 \cos^{-1}((4.0 - 2.46) / 4.0)] - [(4.0 - 2.46) \sqrt{2(4.0)(2.46) - (2.46)^2}] ] (10.83)(7.48)(1 \text{ tank}) \\ & = 2,009 + 1,063 = \underline{(-) 3,072} \text{ gal.} \end{aligned}$$

(e) MISC. DISPLACEMENT VOLUME =

$$(0.02)(21,449) = \underline{(-) 429} \text{ gal.}$$

(f) LOCAL RAINFALL ALLOWANCE =

$$(7.5 / 12)(34.96)(27.71)(7.48) = \underline{(-) 4,650} \text{ gal.}$$

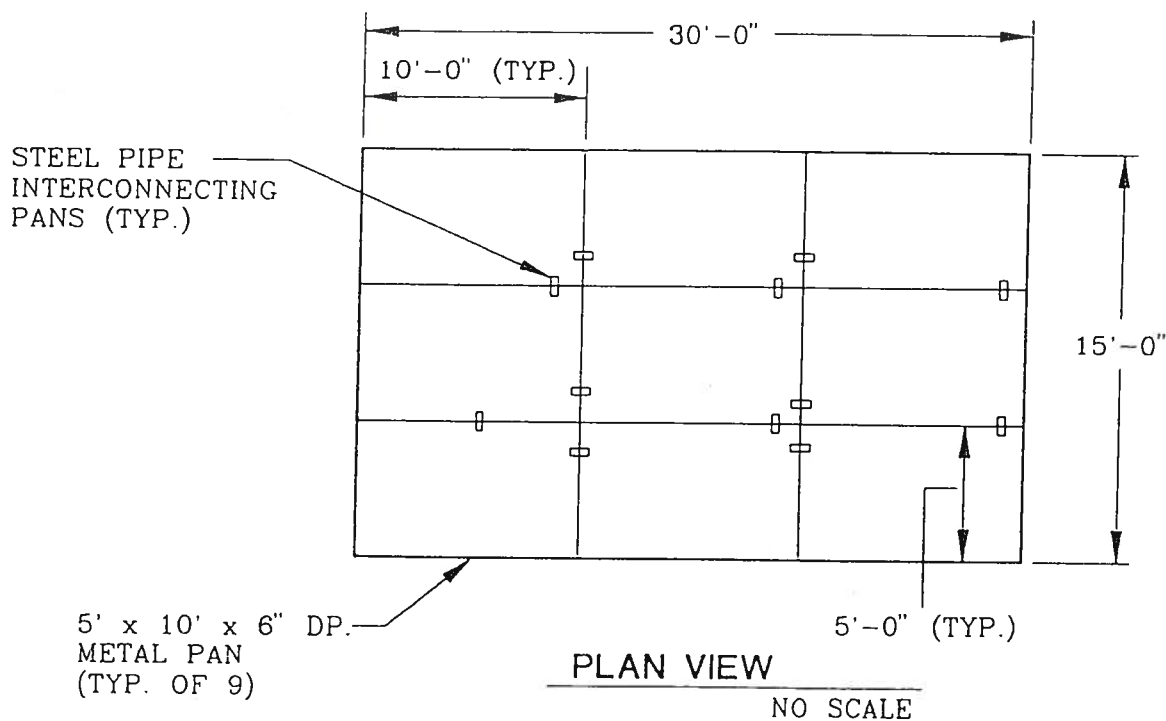
$$\text{TOTAL EXCESS CONTAINMENT VOLUME [sum (a)-(f)] = } \underline{(+) 1,298} \text{ gal.}$$

## SECONDARY CONTAINMENT CALCULATIONS - RETURN/FILL SHELTER

### SECONDARY CONTAINMENT BY METAL PANS

$$\text{VOLUME} = (0.50')(5.0')(10.0') = 25.0 \text{ CF/PAN}$$

$$\text{CONTAINMENT CAPACITY} = (25.0 \text{ CF})(9 \text{ PANS})(7.48 \text{ GAL/CF}) = 1,683 \text{ GAL}$$



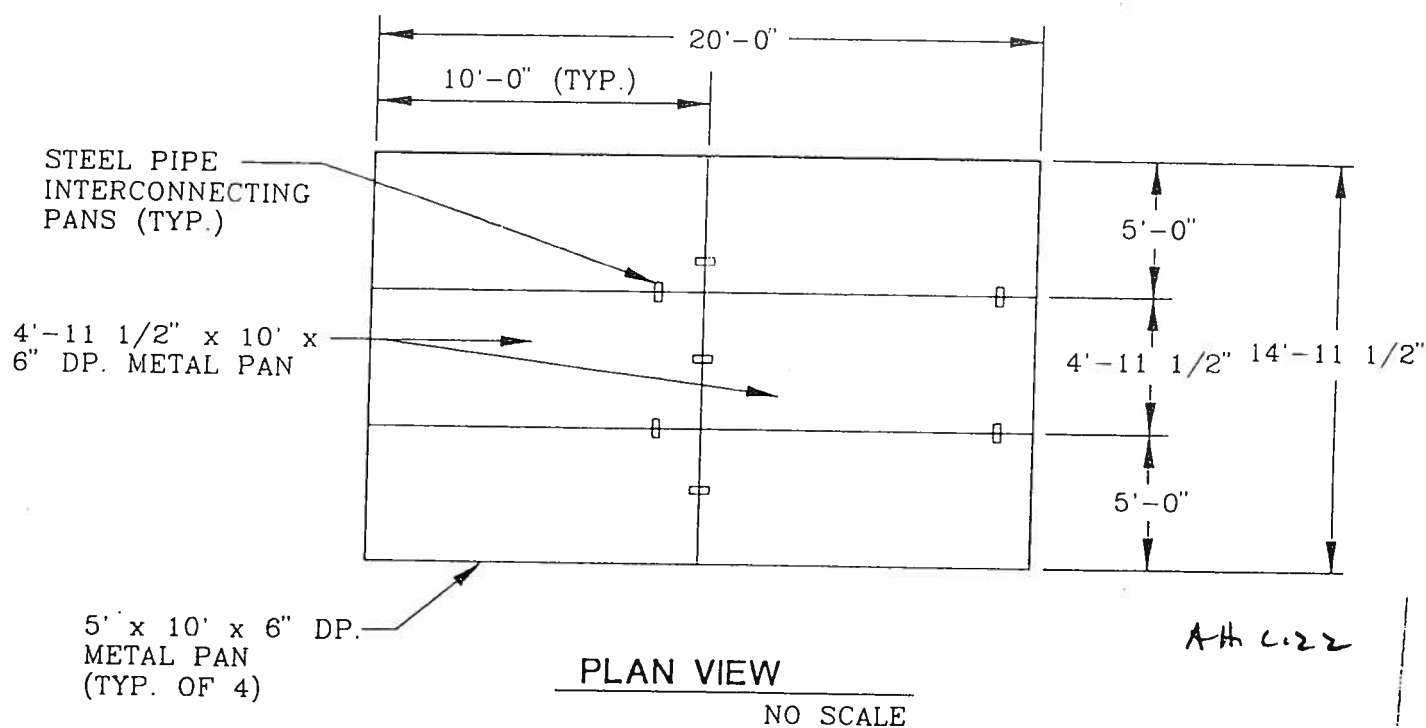
$$\text{EXCESS CONTAINMENT CAPACITY} = \text{CONTAINMENT CAPACITY} - \text{VOLUME OF LARGEST CONTAINER}$$

SWIC DRUM WASHER VOLUME	= 162 GAL
3' x 5' x 3'-4" DUMPSTER VOLUME	= 374 GAL (GOVERNS)
CONTAINMENT CAPACITY	= 1,683 GAL.

$$\text{EXCESS CONTAINMENT CAPACITY} = 1,683 \text{ GAL} - 374 \text{ GAL} = \underline{\underline{(+ ) 1,309 \text{ GAL}}}$$

## SECONDARY CONTAINMENT CALCULATIONS FLAMMABLE STORAGE SHELTER

### SECONDARY CONTAINMENT BY METAL PANS



$$VOL_1 = (0.50')(5.0')(10.0') = 25.0 \text{ CF/PAN}$$

$$VOL_2 = (0.50')(4.96')(10.0') = 24.8 \text{ CF/PAN}$$

$$\begin{aligned} \text{CONTAINMENT CAPACITY} &= (25.0 \text{ CF})(4 \text{ PANS})(7.48 \text{ GAL/CF}) + (24.8 \text{ CF})(2 \text{ PANS})(7.48 \text{ GAL/CF}) \\ &= 748 + 371 \text{ GAL} = \underline{\underline{(+ ) 1,119 \text{ GAL}}} \end{aligned}$$



CONSULTING ENGINEERS  
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Client SAFETY-KLEEN CORP. Pg 1 of 1

Project No 9384.1 Date 4-14-93

Project Title JACKSON, MS

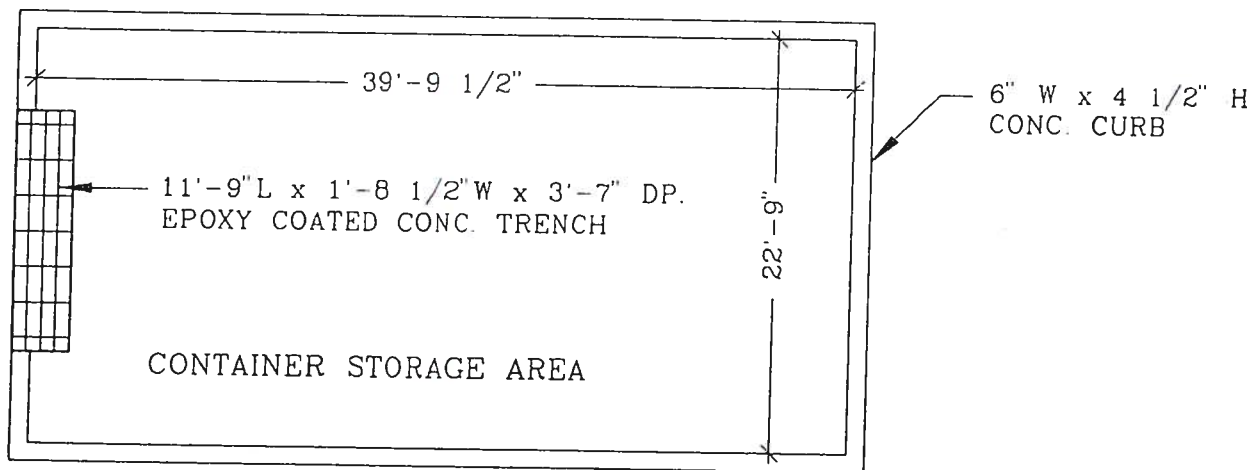
Subject CONTAINER STORAGE AREA CONTAINMENT CALCS.

Designer CMA Cx By CWM Prelim        Final SD

## SECONDARY CONTAINMENT CALCULATIONS CONTAINER STORAGE AREA

Ad C-21

SECONDARY CONTAINMENT PROVIDED BY TRENCH ONLY



PLAN VIEW

NO SCALE

$$\text{CONTAINMENT CAPACITY} = (11.75')(1.71')(3.58')(7.48 \text{ GAL/CF}) = \underline{\underline{538 \text{ GAL}}}$$

Permit Attachment III-2  
Incompatible Waste Procedures

leaks and potential incident. Regular inspection of this equipment and the parts washer waste and product inventory will detect any leaks.

### 3.4.3 Potential Fire Sources

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

- a. All wastes and products are kept away from ignitable sources - Personnel must confine smoking and open flames to designated areas, separate from any waste storage areas. No smoking is allowed inside any Safety-Kleen buildings or vehicles. All electrical wiring, switches and fixtures, etc., for the pumps and lighting systems for the tank system meet the applicable fire safety and electrical construction codes. The parts washer waste handling area, flammable storage shelter and the aboveground storage tanks are separated from the warehouse building area to minimize the potential for a fire to spread or injury to personnel to occur;
- b. Ignitable wastes are handled so that they do not:
  1. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction - The ignitable wastes are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources or subject to violent reactions. The tanks are vented and the containers are kept at ambient temperature to minimize the potential for pressure build up. The tanks are painted a light color to reflect sunlight and are vented to prevent radiant heat buildup;
  2. Produce uncontrolled toxic mists, fumes, dusts or gases in quantities

sufficient to threaten human health - The vapor pressure of parts washer solvents is typically low (2 mm) and it and the paint wastes are only reactive with strong oxidizers and reactive metals. Toxic mists, fumes, dusts or gases will not form in quantities sufficient to threaten human health since strong oxidizers are handled at this facility on a transfer basis only, with proper segregation from other reactive materials. Thus, the potential for a reaction between incompatible materials is minimal under normal working conditions;

3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion - See "a" above and "c" below;
4. Damage to the structural integrity of the Safety-Kleen service center- The parts washer wastes and paint wastes will not cause deterioration of the tank, containers, or other structural components of the facility;
- c. Adequate aisle space is maintained to allow the unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the service center operation in an emergency;
- d. "No Smoking" signs are posted in areas where solvents are handled or stored; and
- e. Fire extinguishers are checked once per week and tested by the fire extinguisher company once per year.

#### **3.4.4 Tank Evaluation and Repair Plan**



## Permit Attachment IV-1

Procedures for preventing spills and overflows from the tanks or containment systems

center has been equipped to facilitate these activities. Containers will be moved manually or by using a handcart, and pallets using a forklift or pallet jack. A hoist is available at the branch to assist in the lifting of heavy items. Upon arrival at the service center, containers of waste are added to the storage tank or placed in the container storage areas. Open containers of waste are not left unattended. A container holding hazardous waste will always be kept closed during storage, except when it is necessary to add or remove waste. Below are descriptions of situations which can result in accidents and the precautions taken to prevent their occurrences.

#### **3.4.1 Potential Minor Spill Sources**

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

- a. Pouring of containerized waste into the loading units - Solvent can splash out of the unit when being emptied from containers. The return and fill station is underlain by a metal pan to collect any spilled material. All accumulated liquids in the metal pans should be removed daily or as soon as practicable. Employee training emphasizes the importance of taking care in emptying the containers. The containment provided in the return and fill station design will contain this type of spill;
- b. Filling of containers with parts washer product - A low pressure hose with an automatic shut-off valve, similar to those used at automotive service stations, is used to fill the containers with product. Leaking fittings or a damaged hose could lead to the discharge of product outside of the container. Manual emergency shut-off valves are on each hose in the event that the equipment not function properly. In addition, employee training emphasizes the importance of the daily inspection of hoses and fittings, maintenance, and reporting of conditions with accident potential;

- c. Moving of containers - When a container is moved, a potential exists for it to tip over. To minimize the potential for the spillage of waste, all containers must be maintained in an upright position and remain tightly covered while in storage or in transit; and
- d. Delivery truck transfers - The cargo is normally secured in the route vehicle with straps before transport. Individual containers of solvent can tip over or be dropped when being moved on or off a delivery truck so transfers will be made using a handcart and a hoist, if necessary.

If a spill does occur, the amount of solvent in the containers is a quantity which can be collected with sorbent material. Any contaminated soil that results will be removed and transported to a Safety-Kleen recycle center or permitted waste treatment or disposal facility for proper disposal.

#### **3.4.2 Potential Major Spill Sources**

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

- a. Overfilling of storage tanks - Both product and parts washer waste tanks and the used oil/oily water/antifreeze tank can be overfilled with a resulting discharge of material. The high-level alarm on the parts washer waste and product tanks are inspected each operating day for proper functioning of electrical and mechanical components. Further, each tank's volume is checked and the remaining space is ascertained before pumping material into the tanks. These measures will minimize the potential for overfilling of the storage tanks; and
- b. Leaking pipelines - The pipelines and other equipment present a potential for

leaks and potential incident. Regular inspection of this equipment and the parts washer waste and product inventory will detect any leaks.

### 3.4.3 Potential Fire Sources

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  2. Produce uncontrolled toxic mists, fumes, dusts or gases in quantities