

November 27, 2024

Ms. Emilly DeVore  
Safety-Kleen Systems, Inc.  
734 Northwest Bypass 66  
Springfield, MO 65802

**CERTIFIED MAIL**

Re: RCRA Permit Renewal Application (Application)  
Safety-Kleen Systems, Inc., Oklahoma City  
EPA ID# OKD980878474

Dear Ms. DeVore:

On December 22, 2023, the Department of Environmental Quality (DEQ) received the above-referenced Application for the renewal of the Safety-Kleen Systems, Inc. (Safety-Kleen) Resource Conservation and Recovery Act (RCRA) Operations Permit. The Application was reviewed for administrative completeness in accordance with Title 40 of the Code of Federal Regulations (40 C.F.R.) parts 264 and 270, the Oklahoma Hazardous Waste Management Act (27A O.S. §§ 2-7-101 through 2-7-134), Oklahoma Administrative Code (OAC) 252:4 and OAC 252:205, and DEQ determined the Application to be administratively complete.

DEQ reviewed the Application for technical adequacy in accordance with the applicable rules and regulations and issued a notice of deficiency in correspondence dated July 26, 2024. Safety-Kleen responded to the request on October 10, 2024. All requested information was provided. DEQ completed its technical review of the Application, including all supplemental information, and finds it to be technically complete.

DEQ provided Safety-Kleen with a courtesy draft permit for comment on October 31, 2024. Safety-Kleen responded with comments in a letter dated November 11, 2024. DEQ has incorporated Safety-Kleen's comments into the Permit Conditions. Specifically, Permit Condition III.A was revised to allow storage of products in the permitted container storage areas. Permit condition IV.F was revised to explain the requirements for determining leaks in equipment. This revision for determining leaks is more stringent than the requirements of 40 C.F.R. § 264.1058.

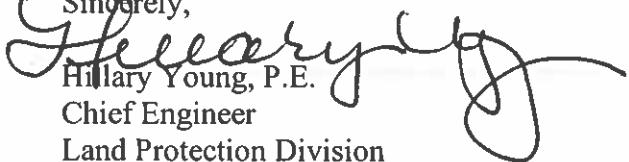
A copy of the proposed Permit with attachments is enclosed along with language for the public notices. These notices will announce the opening of a forty-five (45) day comment period during which the public may comment on the Permit language or request that a public meeting be held. Please arrange for these notices to be published in a local newspaper and broadcast on a local radio station within thirty (30) days. All notices should be published and broadcast on the same day if possible. The enclosed copy of the Permit should be placed at the Mustang Public Library before the notices are published.

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Please be advised that the conditions of the existing, expired permit shall remain in full effect until a renewal permit is issued.

If you have any questions regarding this correspondence, please contact Jerry Forgey of my staff at [jerry.forgey@deq.ok.gov](mailto:jerry.forgey@deq.ok.gov) or 405-702-5107.

Sincerely,

  
Hillary Young, P.E.  
Chief Engineer  
Land Protection Division

HY / JF

Enclosures: Draft Permit  
Draft Public Notices

Cc: Harry Shah, EPA Region 6 (via email)

**DRAFT**

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**RESOURCE CONSERVATION AND RECOVERY ACT PERMIT FOR**

**A HAZARDOUS WASTE MANAGEMENT FACILITY**

**EPA ID:** OKD980878474  
**Permittee:** Safety-Kleen Systems, Inc.  
7528 Newcastle Road  
Oklahoma City, OK 73169

**Permit Number:** 980878474-R1  
**Effective Date:** January \_\_, 2025  
**Expiration Date:** January \_\_, 2035

=====  
Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. §§ 6901 et seq., commonly known as RCRA), including the Hazardous and Solid Waste Amendments of 1984 (HSWA), and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) codified in Title 40 of the Code of Federal Regulations (C.F.R.), and the Oklahoma Hazardous Waste Management Act (OHWMA), 27A O.S. §§ 2-7-101 through 2-7-134, as amended, and regulations promulgated thereunder, a RCRA Permit to conduct hazardous waste management activities is reissued by the Oklahoma Department of Environmental Quality (DEQ) to Safety-Kleen Systems, Inc. (hereafter called the Permittee).

This legal description of the facility is: a part of the Southwest Quarter (SW/4) of Section Six (6), Township Eleven (11), North, Range Four (4) West of the Indian Meridian, Oklahoma City, Oklahoma County, Oklahoma.

The Permittee owns and operates a hazardous waste storage facility whose activities include storage and consolidation of hazardous wastes from off-site industrial and commercial generators. The facility stores up to 3,912 gallons of hazardous wastes in containers and 16,800 gallons in tanks. The types of wastes managed are primarily aqueous and organic cleaning solutions from businesses that provide automotive repairs, industrial maintenance, and dry-cleaning services.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any attachments); the applicable regulations contained in 40 C.F.R. Parts 124, 260 through 264, 266, and 270, as specified in the Permit; and other applicable state and federal statutes and regulations. Applicable regulations are those which are in effect on the date of issuance of the Permit, in accordance with 40 C.F.R. § 270.32(c). Primary responsibility for the enforcement of the provisions of this Permit lies with DEQ.

This Permit is based upon the assumption that all the information submitted in the Part B Permit Application received on December 22, 2023, as modified by subsequent amendments, the last one dated October 24, 2024, (hereafter referred to as the Application) is accurate and that the facility will be operated as specified in the Application and this Permit.

Any inaccuracies found in the submitted Application may be grounds for the termination, revocation and reissuance, or modification of this Permit in accordance with 40 C.F.R. §§ 270.41, 270.42, and 270.43 and for enforcement action.

This Permit is effective as of January \_\_, 2025, and shall remain in effect until January \_\_, 2025,

Safety-Kleen Systems, Inc.

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unless revoked and reissued under 40 C.F.R. § 270.41, terminated under 40 C.F.R. § 270.43, or continued in accordance with 40 C.F.R. § 270.51(a) and Title 252, Oklahoma Administrative Code, Chapter 205, otherwise known as the hazardous waste management rules, and the Oklahoma Administrative Procedures Act 75 O.S. §§ 250 *et seq.*

Issued this \_\_ day of January 2025.

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Hillary Young, P.E.  
Chief Engineer  
Land Protection Division

Date

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Kelly Dixon  
Director  
Land Protection Division

Date

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Attachment 1 – Facility Description

Attachment 2 – Waste Analysis Plan

Attachment 3 – Inspection Requirements

Attachment 4 – Contingency Plan

Attachment 5 – Personnel Training

Attachment 6 – Closure Plan and Cost Estimates

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Appendix A – Part A Application, Part B Certification, and Landowners Affidavit

Appendix B – Process Flows

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Appendix D – Annual Recharacterization Program

Appendix E – Engineering Drawings, Inspection Logs, and Subpart BB Equipment List

Appendix F – Emergency Evacuation and Equipment

Appendix G – Job Descriptions and Training Records

DRAFT

## SECTION I GENERAL PERMIT CONDITIONS

### A. GENERAL

The Permittee shall monitor, maintain, and operate the Safety-Kleen Systems, Inc. facility (Facility) in compliance with the provisions of the Oklahoma Hazardous Waste Management Act (OHWMA), 27A Oklahoma Statues (O.S.) §§ 2-7-101 through 2-7-134, as amended, the Oklahoma Administrative Code (OAC) 252:205 and 252:515, the federal Hazardous Waste Management Regulations in Title 40 of the Code of Federal Regulations (C.F.R.) Parts 260-279, the Resource Conservation and Recovery Act (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the approved Permit Application as further modified through Permit Conditions set herein.

### B. BASIS OF PERMIT

This Permit is granted based on the information submitted and the design criteria presented in the application. Any inaccuracies found in this information could provide cause for the termination or modification of this Permit and for enforcement action. The Permittee is to inform the Land Protection Division of the Oklahoma Department of Environmental Quality (DEQ) of any deviation from or changes in the design or operation of the facility that could affect the Permittee's ability to comply with the applicable regulations or Permit Conditions.

### C. INCORPORATION BY REFERENCE

All the referenced federal regulations (40 C.F.R. Parts 124, 260 through 266, 268, 270, 273 and 279) as specified in the Permit are, unless otherwise stated, incorporated in their entirety by OAC 252:205-3-2.

### D. DEFINITIONS

For purposes of this Permit and the special conditions pursuant to the 1984 Hazardous and Solid Waste Amendments to RCRA terms used herein shall have the same meaning as those in 40 C.F.R. Parts 124 and 260 through 270 and OAC 252:205 unless this Permit specifically provides otherwise. Where terms are not defined in the Oklahoma Administrative Code 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.

**“Action Levels”** means health and environmental-based levels of constituent concentrations determined by DEQ to be indicators for protection of human health and the environment. Oklahoma drinking water maximum contaminant levels (MCLs), or an alternate limit established by DEQ per 40 C.F.R. § 264.94(b), will be considered Action Levels for groundwater and surface water. The calculation of action levels is specified in the EPA RFI guidance.

**“Area of Concern” (AOC)** means any discernable unit or area which, in the opinion of DEQ, may have received solid or hazardous waste or waste containing hazardous constituents at any time. DEQ may require investigation of the unit as if it were a solid waste management unit (SWMU). If shown to be a SWMU by the

investigation, the AOC must be reported by the Permittee as a newly identified SWMU. If the AOC is shown not to be a SWMU by the investigation, DEQ may determine that no further action is necessary and notify the Permittee in writing.

**“CMS”** means Corrective Measures Study.

**“DEQ”** means the Oklahoma Department of Environmental Quality.

**“Director”** means the Executive Director of DEQ, or his/her designee or authorized representative.

**“Division Director”** means the Director of the Land Protection Division of DEQ, or his/her designee or authorized representative.

**“DOT”** means the United States Department of Transportation.

**“EPA”** means the United States Environmental Protection Agency.

**“Facility”** means all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.

**“HSWA”** means the 1984 Hazardous and Solid Waste Amendments to RCRA.

**“Hazardous Constituent”** means any constituent identified in Appendix VIII of 40 C.F.R. Part 261 or any constituent identified in Appendix IX of 40 C.F.R. Part 264.

**“Hazardous Waste”** means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent.

**“Land disposal”** means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

**“Land Protection Division” (LPD)** means the Land Protection Division of DEQ.

**“Permit”** means this Permit, all Permit Attachments, and all provisions and documents that are incorporated herein.

**“Permittee”** means Safety-Kleen Systems, Inc., Oklahoma City, Oklahoma, EPA ID# OKD980878474.

**“RCRA”** means the Resource Conservation and Recovery Act of 1980, as amended by HSWA in 1984.

**“RFA”** means RCRA Facility Assessment.

**“RFI”** means RCRA Facility Investigation.

**“Regional Administrator”** means the Regional Administrator of EPA Region VI, or his/her designee or authorized representative.

**“Release”** means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes or hazardous constituents into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

**“Solid Waste Management”** means the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.

**“Solid Waste Management Unit” (SWMU)** means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released. The definition includes regulated units (i.e., landfills, surface impoundments, waste piles, and land treatment units) but does not include passive leakage or one-time spills from production areas and units in which wastes have not been managed (e.g., product storage areas).

If subsequent to the issuance of this Permit, regulations are promulgated which redefine any of the above terms, DEQ may, at its discretion, apply the new definition to this Permit by modifying the Permit in accordance with 40 C.F.R. § 270.41.

## **E. EFFECT OF PERMIT**

The Permittee is allowed to store hazardous waste received from off-site in accordance with the conditions of this Permit. Any storage, treatment, or disposal of hazardous waste not authorized in this Permit is prohibited, unless exempted from permit requirements or approved by DEQ under a separate Administrative Order.

Subject to 40 C.F.R. § 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA except for those requirements not included in the Permit which become effective by statute or are promulgated under 40 C.F.R. Part 268 restricting the placement of hazardous wastes in or on the land.

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 laws or regulations. 40 C.F.R. §§ 270.4(b), 270.4(c), and 270.30(g).

Compliance with the terms of this Permit does not constitute a defense to orders issued or actions brought under the OHWMA to address an imminent and substantial endangerment, Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; §§ 104, 106(a), 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 from an imminent and substantial endangerment.

## F. PERMIT ACTIONS

### 1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in 40 C.F.R. §§ 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. 40 C.F.R. §§ 270.4(a)(2) and 270.30(f). Except as provided in Permit Condition I.F.4, the term of this Permit shall not be extended by modification beyond the expiration date appearing on the face of this Permit. 40 C.F.R. § 270.50.

### 2. Permit Review

This Permit may be reviewed by DEQ at any time after the date of permit issuance and may be modified as necessary, as provided in 40 C.F.R. § 270.41.

### 3. Permit Renewal

This Permit may be renewed as specified in 40 C.F.R. § 270.30(b), OAC 252:205, and Permit Condition I.H.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. 40 C.F.R. § 270.32(d) and HSWA Sec. 212.

### 4. Permit Expiration

Pursuant to 40 C.F.R. § 270.50, this Permit shall be effective for a fixed term not to exceed ten (10) years. 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 40 C.F.R. §§ 270.10(h)(1) and 270.13 through 270.29) and, through no fault of the Permittee, DEQ has not issued a new permit, as set forth in 40 C.F.R. § 270.51. Permits continued under this section (Continued Permit) remain fully effective and enforceable. Pursuant to 40 C.F.R. § 270.51(c), when the Permittee is not in compliance with the conditions of the expired or expiring Permit, DEQ may choose to do any one or more of the following:

- a. Initiate enforcement action based upon the Continued Permit.
- b. Issue a notice of intent to deny the new permit under 40 C.F.R. § 124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the Continued Permit and be subject to enforcement action for operating without a permit.
- c. Issue a new permit under 40 C.F.R. Part 124 with appropriate conditions.
- d. Take other actions authorized by these regulations.

### 5. Permit Enforcement

When the Permittee is not in compliance with the conditions of the Permit, DEQ may do any or all of the following:

- a. Pursuant to 27A O.S. §§ 2-7-126, 2-7-127, 2-7-129, 2-7-130, 2-7-131 and/or 2-7-134, issue an order with penalties; require corrective action; temporarily suspend the Permit; revoke the Permit; and/or cause proceedings to be instituted in the district court for civil or criminal penalties.
- b. Issue a final denial of the new permit. If the permit is denied, the owner or operator shall cease the activities authorized by the Permit or be subject to enforcement action for operating without a permit.
- c. Take other actions authorized by 27A O.S. §§ 2-7-101 through 2-7-134, OAC 252:205-1 through 252:205-25, or other applicable laws or regulations.

#### 6. Transfer of Permit

This Permit is not transferrable to any person, except after notice to DEQ. DEQ may require modification or revocation and reissuance of the Permit pursuant to 40 C.F.R. § 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 40 C.F.R. Parts 264 and 270 and this Permit. 40 C.F.R. §§ 270.30(1)(3) and 264.12(c).

### G. 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, except as otherwise provided by 40 C.F.R. § 124.16, be affected thereby.

### H. DUTIES AND REQUIREMENTS

#### 1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration that noncompliance is authorized by an emergency permit as noted by 40 C.F.R. § 270.61(b)(6). Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of OHWMA and RCRA and is grounds for enforcement action, Permit termination, revocation and reissuance, modification, or denial of a permit renewal application. 40 C.F.R. § 270.30(a).

#### 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. 40 C.F.R. §§ 270.10(h) and 270.30(b).

#### 3. 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. 40 C.F.R. § 270.30(c).

**4. 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. 40 C.F.R. § 270.30(d).

**5. 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 include 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. 40 C.F.R. § 270.30(e).

**6. Duty to Provide Information**

The Permittee shall furnish to DEQ, within a reasonable time, any relevant information which DEQ 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 DEQ, upon request, copies of records required to be kept by this Permit. 40 C.F.R. § 270.30(h).

**7. Inspection and Entry**

Pursuant to 40 C.F.R. § 270.30(i) and 27A O.S. § 2-3-501(A), the Permittee shall allow DEQ, 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.
- 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.

**8. Monitoring and Records**

- a. Pursuant to 40 C.F.R. § 270.30(j)(1), 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 40 C.F.R. Part 261 or an equivalent method approved by DEQ. 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 approved method.

- 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 40 C.F.R. § 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of DEQ at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. 40 C.F.R. §§ 264.74(b) and 270.30(j)(2).
- c. Pursuant to 40 C.F.R. § 270.30(j)(3), records of monitoring information shall specify:
  - i. The date(s), exact place, and times of sampling or measurements.
  - ii. The individual(s) who performed the sampling or measurements.
  - iii. The date(s) analyses were performed.
  - iv. The individual(s) who performed the analyses.
  - v. The analytical techniques or methods used.
  - vi. The results of such analyses.

## I. REPORTING REQUIREMENTS

### 1. Reporting Planned Changes

The Permittee shall give notice to DEQ, as soon as possible, of any planned physical alterations or additions to the permitted facility. 40 C.F.R. § 270.30(l)(1).

### 2. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to DEQ of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements. 40 C.F.R. § 270.30(l)(2).

### 3. Incident Reporting

- a. Upon release of materials that are or become hazardous waste whether by spillage, leakage, or discharge to soils or to air or to surface or to groundwaters (outside the limits of a discharge permit), or by other means, and which could threaten human health or the environment, the owner or operator shall immediately notify DEQ and take all necessary action to contain, remediate, and mitigate hazards from the release. OAC 252:205-13-1(a) and 40 C.F.R. § 270.30(l)(6).

- b. Pursuant to 40 C.F.R. § 270.30(l)(6)(ii) 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.
  - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided within five (5) 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. DEQ may waive the five-day written notice requirement in favor of a written report within fifteen (15) days. 40 C.F.R. § 270.30(l)(6)(iii).

4. Twenty-Four Hour Reporting

- a. The Permittee shall report to DEQ any noncompliance which may endanger health or the environment in accordance with 40 C.F.R. § 270.30(l)(6). Any such information shall be reported orally within twenty-four (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. Pursuant to 40 C.F.R. § 270.30(l)(6)(ii) 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.
  - vii. Estimated quantity and disposition of recovered material that resulted from the incident.

- c. A written submission shall also be provided within five (5) 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 DEQ may waive the five-day written notice requirement in favor of a written report within fifteen (15) days. 40 C.F.R. § 270.30(l)(6)(iii).

**5. Monthly Reports**

The Permittee shall submit monthly reports required by OAC 252:205-9-2.

**6. Biennial Reports**

The Permittee shall comply with the biennial reporting requirements of 40 C.F.R. § 264.75.

**7. Manifest Reports**

The Permittee shall comply with the manifest discrepancy reporting requirements of 40 C.F.R. § 264.72 and the unmanifested waste reporting requirements of 40 C.F.R. § 264.76.

**8. Other Noncompliance**

The Permittee shall report all other instances of noncompliance not otherwise required to be reported in this section at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.I.4. 40 C.F.R. § 270.30(l)(10).

**9. Other Information**

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit Application or submitted incorrect information in the Permit Application or in any report to DEQ, the Permittee shall promptly submit such facts or information. 40 C.F.R. § 270.30(l)(11).

**J. SIGNATORY REQUIREMENT**

All applications, reports, or information submitted to or requested by the Director, his designee, or authorized representative, shall be signed and certified in accordance with 40 C.F.R. §§ 270.11 and 270.30(k).

**K. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO DEQ**

The Permittee shall ensure that all plans, reports, notifications, and other submissions to DEQ required in this Permit are signed and certified in accordance with 40 C.F.R. § 270.11. All reports, notifications, or other submissions which are required by this Permit should be sent by certified mail or hand delivered to:

Chief Engineer  
Land Protection Division  
Oklahoma Department of Environmental Quality  
P.O. Box 1677  
707 North Robinson  
Oklahoma City, Oklahoma 73101-1677  
Phone Number (405) 702-5100

## **L. CONFIDENTIAL INFORMATION**

In accordance with 40 C.F.R. § 270.12 and OAC 252:4-1-5(d) and 252:205-1-4, the Permittee may claim confidential any information required to be submitted by this Permit. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of the submission, EPA and DEQ may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information) and the Oklahoma Open Records Act, Title 51 O.S. § 24A.5. Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

## **M. 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:

- Waste Analysis Plan, as required by 40 C.F.R. § 264.13 and this Permit (Permit Attachment 2).
- Inspection schedules, as required by 40 C.F.R. § 264.15(b)(2) and this Permit (Permit Attachment 3).
- Personnel training documents and records, as required by 40 C.F.R. § 264.16(d) and this Permit (Permit Attachment 5).
- Current versions of procedures, structures, and equipment for prevention of hazards, mentioned in the Permit Application and as required by 40 C.F.R. §§ 270.14(b)(8) and (9).
- Contingency Plan, as required by 40 C.F.R. § 264.53(a) and this Permit (Permit Attachment 4).
- Operating record, as required by 40 C.F.R. § 264.73 and this Permit.
- Closure Plan, as required by 40 C.F.R. § 264.112(a) and this Permit (Permit Attachment 6).
- Annually adjusted cost estimate for facility closure, as required by 40 C.F.R. § 264.142(d) and OAC 252:205-9-5.

- A copy of this Permit, complete Permit Application, Notices of Deficiencies (NODs), Responses to NODs, and Permit modifications.

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## SECTION II GENERAL FACILITY CONDITIONS

### 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 non-sudden release of hazardous waste constituents to air, soil, groundwater, or surface water which could threaten human health or the environment, as required by 40 C.F.R. § 264.31 and OAC 252:205-9-1(a).

### B. REQUIRED NOTICES

#### 1. Hazardous Waste Imports

When receiving hazardous waste subject to 40 C.F.R. Part 262, Subpart H from a foreign source, the Permittee must comply with 40 C.F.R. §§ 264.12(a), 264.71(a)(3), and 264.71(d).

#### 2. Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source it must inform the generator in writing that it has the appropriate permits and will accept the type of waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record. 40 C.F.R. § 264.12(b).

### C. GENERAL WASTE ANALYSIS

#### 1. Test Methods

The Permittee shall follow the waste analysis procedures required by 40 C.F.R. § 264.13 and as described in the attached Waste Analysis Plan (WAP), Permit Attachment 2. The Permittee must notify DEQ of any changes to its WAP before implementing them. Changes to the WAP may require a permit modification in accordance with Permit Condition I.F.1. The Permittee shall repeat the analysis when it is notified or has reason to believe that the process or operation generating the waste has changed. 40 C.F.R. § 264.13(a)(3)(i).

#### 2. Quality Assurance

The Permittee shall verify the analysis of each waste stream annually, at a minimum, 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 DEQ. 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.

#### 3. Contract Laboratories

If the Permittee uses a contract laboratory to perform the analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit. All analytical reports, chain-of-custody forms, and records related to contract laboratories must be maintained as part of the Permittee's operating record.

#### **4. Hazardous Waste Inspections**

The Permittee must inspect and, if necessary, analyze each hazardous waste shipment received at the Facility to determine whether it matches the identity of waste specified on the accompanying manifest or shipping paper. The analysis must be repeated if these inspections indicate that the hazardous wastes collected or received at the Facility does not match the identity of the waste designated on the accompanying manifest or shipping paper. 40 C.F.R. § 264.13(a)(3)(ii).

#### **5. Recordkeeping**

The Permittee shall maintain the results of all waste analyses and waste determinations in the facility operating record as required by 40 C.F.R. § 264.73(b)(3).

### **D. PROHIBITED WASTES**

The following waste types from off-site sources are prohibited:

1. Explosive DOT Class 1 materials as defined in 49 C.F.R. § 173.50.
2. Radioactive DOT Class 7 materials as defined in 49 C.F.R. § 173.403.
3. Regulated medical wastes as defined in OAC 252:515-1-2.
4. Municipal solid waste from households. Household hazardous waste is allowed.

### **E. SECURITY**

The Permittee shall comply with the security provisions of 40 C.F.R. § 264.14 and the Security Measures in Permit Attachment 3.

### **F. GENERAL INSPECTION REQUIREMENTS**

The Permittee shall follow the inspection schedule set out in Attachment 4. The Permittee shall remedy any deterioration or malfunction discovered during an inspection, as required by 40 C.F.R. § 264.15(c). Records of inspections shall be kept, as required by 40 C.F.R. § 264.15(d).

### **G. PERSONNEL TRAINING**

The Permittee shall conduct personnel training, as required by 40 C.F.R. § 264.16. This training program shall follow the Safety-Kleen Training Matrix in Appendix G. The Permittee shall maintain training documents and records required by 40 C.F.R. §§ 264.16(d) and (e).

### **H. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE**

The Permittee shall comply with the requirements of 40 C.F.R. § 264.17. The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in the Permit Application.

## **I. PREPAREDNESS AND PREVENTION**

The Permittee shall follow the procedures in the Permit Application and comply with 40 C.F.R. §§ 264.31 through 264.37.

### **1. Site Security and Fencing**

The Permittee shall comply with the security provisions of 40 C.F.R. § 264.14(b)(2) and (c), OAC 252:515-19-32, and Attachment 3. Fencing, gates, and signs shall be maintained to restrict access by unauthorized personnel.

### **2. Required Equipment**

At a minimum, the Permittee shall maintain at the Facility the equipment set forth in the Contingency Plan (Attachment 4) and as required by 40 C.F.R. § 264.32.

### **3. Testing and Maintenance of Equipment**

The Permittee shall test and maintain the equipment specified in Attachment 4, as necessary, to assure its proper operation in time of emergency, as required by 40 C.F.R. § 264.33.

### **4. Access to Communications or Alarm System**

The Permittee shall maintain access to the communication or alarm system, as required by 40 C.F.R. § 264.34.

### **5. Required Aisle Space**

At a minimum, the Permittee shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the Facility in an emergency as required by 40 C.F.R. § 264.35 and as specified in Attachment 3.

### **6. Arrangements with Local Authorities**

The Permittee shall maintain arrangements with state and local authorities, as required by 40 C.F.R. § 264.37(a). 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 in accordance with 40 C.F.R. § 264.37(b).

## **J. CONTINGENCY PLAN**

### **1. Requirement for Contingency Plan**

The Permittee must have a contingency plan designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. 40 C.F.R. § 264.51(a).

### **2. Implementation of Contingency Plan**

The Permittee shall immediately carry out the provisions of the Contingency Plan whenever there is a fire, explosion, or release of hazardous waste or

constituents that could threaten human health or the environment. 40 C.F.R. § 264.51(b).

**3. Copies of Contingency Plan**

The Permittee shall comply with the requirements of 40 C.F.R. § 264.53 by maintaining a current copy of the Contingency Plan at the Facility and submitting copies to all local police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services.

**4. Amendments to Contingency Plan**

The Permittee shall review and immediately amend the Contingency Plan, if necessary, as required by 40 C.F.R. § 264.54. Such amendment may require permit modification in accordance with 40 C.F.R. § 270.42. Copies of the amended plan shall be distributed as required by 40 C.F.R. § 264.53.

**5. Emergency Coordinator**

A trained emergency coordinator shall be available at all times in case of an emergency, as required by 40 C.F.R. § 264.55. The names, addresses, and phone numbers of all persons qualified to act as emergency coordinators shall be supplied to DEQ at the time of certification. This list is to be revised and promptly submitted to DEQ in case of personnel changes. 40 C.F.R. § 264.52(d).

**K. MANIFEST SYSTEM**

The Permittee shall comply with the manifest requirements of 40 C.F.R. Part 262 Subpart B and Part 264 Subpart E and OAC 252:205-5-5.

**L. GENERAL CLOSURE REQUIREMENTS**

**1. Performance Standard**

The Permittee shall close the Facility, as required by 40 C.F.R. § 264.111 and OAC 252:205-9-5 in accordance with Attachment 6.

**2. Amendment to Closure Plan**

The Permittee shall amend the Closure Plan, in accordance with 40 C.F.R. § 264.112(c), whenever necessary. Such amendment may require permit modification in accordance with 40 C.F.R. § 270.42.

**3. Notification of Closure**

The Permittee shall notify DEQ in writing at least forty-five (45) days prior to the date on which he expects to begin final closure of the Facility, as required by 40 C.F.R. § 264.112(d).

**4. Time Allowed for Closure**

Within ninety days (90) after receiving the final volume of hazardous waste, the Permittee shall treat or remove from the unit or facility all hazardous waste and

shall complete closure activities, in accordance with 40 C.F.R. § 264.113 and the schedules specified in Attachment 6.

**5. Disposal or Decontamination of Equipment, Structures, and Soils**

The Permittee shall decontaminate and dispose of all contaminated equipment, structures, and soils as required by 40 C.F.R. § 264.114 and Attachment 6.

**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 40 C.F.R. § 264.115.

**M. COST ESTIMATE FOR FACILITY CLOSURE**

The Permittee must adjust the closure cost estimate for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 C.F.R. § 264.143 or upon such date as required by DEQ. 40 C.F.R. § 264.142(b).

The Permittee must revise the closure cost estimate whenever there is a change in the Facility's Closure Plan, as required by 40 C.F.R. § 264.142(c). A copy of the updated Closure Plan shall be submitted to and approved by DEQ prior to operation of a newly constructed unit. 40 C.F.R. § 264.112(c).

**N. FINANCIAL ASSURANCE FOR FACILITY CLOSURE**

The Permittee shall demonstrate continuous compliance with 40 C.F.R. § 264.143 by providing documentation of financial assurance, as required by 40 C.F.R. § 264.149 or 264.151, in at least the amount of the cost estimates required by Permit Condition II.M. Changes in financial assurance mechanism(s) must be approved by DEQ pursuant to 40 C.F.R. Part 264 Subpart H.

Prior to operation of a newly permitted or constructed unit, the Permittee shall update the closure financial assurance mechanism(s) as necessary and demonstrate that an adequately funded financial assurance mechanism(s) for closure is in effect.

**O. LIABILITY REQUIREMENTS**

The Permittee shall demonstrate continuous compliance with the requirement of 40 C.F.R. § 264.147(a) to have and maintain liability coverage for sudden 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.

**P. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS**

The Permittee shall comply with 40 C.F.R. § 264.148, whenever necessary.

**Q. SOLID WASTE (NON-HAZARDOUS) MANAGEMENT ACTIVITIES**

In addition to the hazardous waste activities described in this Permit, the Permittee is also permitted to operate this Facility as a Solid Waste Transfer/Processing Station for Non-Hazardous Industrial Waste (NHIW) as defined under OAC 252:515-31-2.

All solid waste operations shall comply with the rules in OAC 252:515.

In accordance with OAC 252:205-9-6(b), prior to receipt of any NHIW not identified as hazardous waste, the Permittee must obtain the following records and maintain them in the facility operating record:

1. Knowledge of Waste

Information regarding the chemical and physical nature of the waste which reasonably, considering the source, establishes that the waste does not exhibit any characteristic of hazardous waste as described by 40 C.F.R. Part 261, Subpart C. This information may include generator knowledge, laboratory analyses, material safety data sheets, analysis of raw materials or feedstocks, and process descriptions.

2. Generator Statement

An affidavit by the original waste generator stating that the waste does not include any listed hazardous waste.

The Permittee may not receive, store, process, or otherwise manage any waste materials meeting the description of Municipal Solid Waste, Used Tires, or Regulated Medical Waste, except for Household Hazardous Waste and solid wastes generated by the Facility (e.g., office trash, kitchen food waste, boxes, pallets, etc.). OAC 252:515-3-1(a) and 252:515-19-31.

## **R. DEPARTMENT OVERSIGHT AUTHORITY**

The principal function of the Permittee is waste management. DEQ reserves regulatory oversight authority to inspect and observe all activities and facilities that are or may be related to waste management at the Facility regardless of whether or not the activities or facilities are permitted by DEQ. Accordingly, no operations or structures which are or may be related to waste management shall be added or used without notice to DEQ and obtaining appropriate permit(s) as required.

## SECTION III CONTAINER STORAGE

### A. SECTION HIGHLIGHTS

There are two container storage areas permitted at this Facility. One container storage area is located within the warehouse and the other is described as a metal shelter. Details of the container storage areas are included in Attachment 1, Attachment 7, and Appendix E.

The container storage areas are used to store hazardous wastes with Process Codes of S01, container storage, as shown in Appendix A - RCRA Part A Application. All container storage areas may be used to hold non-hazardous waste, 10-day transfer waste, and household hazardous waste provided the maximum storage capacities are not exceeded. The container storage areas may also be used to store products that the Permittee uses or sells provided appropriate precautions are taken to separate incompatible materials and storage capacity limits are not exceeded.

#### 1. Container Storage Area Located Within the Warehouse

This container storage area is located within a metal-framed building with a steel reinforced concrete floor. The building is referred to as the office/warehouse building. The container storage area dimensions are approximately 37.5" x 24.25" (909 square feet). This area has secondary containment in the form of a six-inch wide by four-inch high steel reinforced concrete curb with two collection trenches that are 8.25' x 1.5' x 1' (90 gallons each). The floor and secondary containment system are sealed with an epoxy resin. No more than 1,728 gallons of hazardous waste (including 10-day transfer waste) shall be stored in this container storage area at any time.

Wastes shall be stored in DOT approved containers, ranging in size from 5 to 350 gallons.

#### 2. Metal Shelter Drum Storage Area

The metal shelter container storage area is located in a freestanding metal building that is located approximately 70 feet east of the main office/warehouse building. The metal shelter is 15' x 20' (300 square feet) and sits on a 20' x 36' concrete pad. This structure has secondary containment in the form of a 20' x 15' x 0.5' (1,122 gallons) metal pan. No more than 2,184 gallons shall be stored in this metal shelter building at any time. An overhead door secures the shelter when containers are not being added to or removed from it. The metal shelter building is not wired for electricity. The building is equipped with a halon or equivalent fire suppression system.

Wastes shall be stored in DOT approved containers, ranging in size from 5 to 85 gallons.

### B. PERMITTED AND PROHIBITED WASTES

#### 1. Prohibited Waste

The Permittee is prohibited from accepting waste identified in Permit Condition II.D and hazardous waste that is not identified in the Part A Application for

storage in the container storage areas. Accepting hazardous waste means a transfer of custody after signing the manifest as the designated facility.

**2. Storage of Incompatible Wastes**

The Permittee may not store waste or materials which is incompatible with other wastes stored within any container management area unless precautions are taken to isolate the incompatible waste such as berms, containment pallets, or other appropriate methods.

**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. 40 C.F.R. § 264.171.

**D. COMPATIBILITY OF WASTE WITH CONTAINERS**

The Permittee shall use containers made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste being stored, so that the ability of the container to contain the waste is not impaired, as required by 40 C.F.R. § 264.172.

The Permittee shall not store waste in containers which do not meet the specifications established by the DOT in 49 C.F.R. Parts 171 through 179.

**E. MANAGEMENT OF CONTAINERS**

The Permittee shall keep all containers closed during storage, except when it is necessary to inspect, 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. 40 C.F.R. § 264.173.

**F. SECONDARY CONTAINMENT SYSTEMS**

The Permittee shall maintain the secondary containment system in accordance with the design plans and specifications as submitted and approved. The container storage area shall be maintained free of cracks or gaps, providing an impervious surface to contain leaks until the accumulated liquid can be removed. 40 C.F.R. § 264.175.

Spilled or leaked waste and accumulated precipitation must be removed from sumps or collection areas in a timely manner as required by 40 C.F.R. § 264.175(b)(5).

The Permittee may only store wastes that are compatible with the coating and construction materials used for that storage area.

**G. REQUIRED AISLE SPACE AND STACKING ARRANGEMENTS**

The Permittee shall maintain aisle space in the container storage area sufficient to allow the unobstructed movements of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any portion of the container storage area. At a minimum, two (2) feet aisle spaces shall be maintained.

Thirty-gallon containers and larger sizes shall not be stacked more than two (2) high. Smaller containers may be stacked higher if precautions are taken to prevent accidental falls.

## **H. INSPECTION SCHEDULES AND PROCEDURES**

The Permittee shall inspect the containers and container storage areas each operating day in accordance with the Inspection Schedule in Attachment 3 and 40 C.F.R. § 264.174, to detect leaking containers, deterioration of containers, and the integrity of the containment system.

The Permittee shall place the results of all inspections in the facility operating record. 40 C.F.R. § 264.73(b)(5).

## **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 6. 40 C.F.R. § 264.178.

## **J. SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTE**

The Permittee shall not locate containers holding ignitable or reactive waste within fifty (50) feet of the facility's property line. 40 C.F.R. § 264.176 and OAC 252:205-9-3.

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures outlined in Attachment 3. 40 C.F.R. § 264.17(a)

## **K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE**

1. The Permittee shall not place incompatible wastes in the same container, without the proper precautions. 40 C.F.R. § 264.177(a).
2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. 40 C.F.R. § 264.177(b).
3. The Permittee shall separate containers of incompatible wastes. 40 C.F.R. § 264.177(c).
4. No incompatible waste storage locations shall utilize common sumps or collection areas for secondary containment.

## **L. SUBPART CC AIR EMISSIONS REQUIREMENTS FOR CONTAINERS**

The Permittee's containers are subject the provisions of 40 C.F.R. § 264.1086 when the average volatile organic concentration (VOC) of the waste is equal to or greater than 500 parts per million by weight (ppmw) at the point of waste origination.

### **1. Waste Determination**

The Permittee must determine the average VOC for each waste stream as specified in Attachment 2 and required by 40 C.F.R. § 264.1083(a)(2).

**2. Required Controls**

The Permittee shall use controls specified in 40 C.F.R. § 264.1086 and Attachment 7 for waste with VOC equal to or greater than 500 ppmw at the point of origination.

- a. The Permittee shall manage hazardous wastes in containers greater than 26 gallons using the Level 1 controls required by 40 C.F.R. § 264.1086(c).
- b. The Permittee shall not manage hazardous wastes in light liquid service as defined by 40 C.F.R. § 264.1031 in containers greater than 122 gallons unless the appropriate Level 2 controls required by 40 C.F.R. § 264.1086(d) are used.

**3. Reporting Requirements**

In accordance with 40 C.F.R. § 264.1090(a), the Permittee shall report to DEQ each occurrence when hazardous waste is managed in a container in noncompliance with the conditions specified in 40 C.F.R. §§ 264.1082(c)(1) or (2). The Permittee shall submit a written report within fifteen (15) calendar days of the time that the Permittee becomes aware of the occurrence. 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 recurrence of the noncompliance. The report shall be signed and dated by signatory for the permittee that meets the requirements of 40 C.F.R. § 270.11(a). 40 C.F.R. § 264.1090.

## SECTION IV TANK STORAGE

### A. SECTION HIGHLIGHTS

Spent aqueous and organic cleaning solutions from parts washers are accumulated in a 16,800 gallon above ground storage tank via the Return and Fill Station, which includes drum washer/dumpster units. Containers of spent cleaning solutions are emptied into the drum washer/dumpster units. The drum washer/dumpster units are fitted with screens that filter out debris which is removed and placed in satellite accumulation containers. Sediment that accumulates in the bottom of drum washer/dumpster units is periodically removed and placed in satellite accumulation containers. The satellite accumulation containers are transferred to one of the permitted container storage areas when they are full. The Return and Fill Stations, including the drum washer/dumpster units, are ancillary equipment and subject to applicable requirements of 40 C.F.R. Part 264, Subpart J for tanks systems.

There are two other tanks within the contiguous secondary containment area that are not permitted for hazardous waste. These tanks are used for storage of parts washer products the Permittee uses and sells to customers.

The above ground tank used for hazardous waste was designed in accordance with National Fire Protection Association standards and constructed of carbon steel painted white to reflect sunlight. The secondary containment includes a steel reinforced concrete slab and dike measuring 52' x 21' x 4' which holds 32,672 gallons. The dimensions of the hazardous waste tank are 12' D x 20' H. The Return and Fill Station has secondary containment in the form a concrete slab and curb with the dimensions of 40' x 23' x 0.33'. The capacity of this containment is 2,294 gallons.

The tank system was installed before July 14, 1986, and is subject to the existing tank system design and installation requirements in 40 C.F.R. § 264.191. The definition of “existing tank system or existing component” is in 40 C.F.R. § 260.10.

### B. DESIGN, INSTALLATION, AND REPAIRS

#### 1. Replacement Tanks

A replacement tank is a “new tank” and subject to the requirements of 40 C.F.R. § 264.192. The Permittee shall obtain a written assessment required by 40 C.F.R. § 264.192(a) for each new tank system, including replacement tanks, that is reviewed and certified by a qualified Professional Engineer, in accordance with 40 C.F.R. § 270.11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste.

#### 2. Inspections

The Permittee shall obtain a written inspection prior to placing a new tank system or component in use by an independent, qualified, installation inspector or a qualified Professional Engineer, either of whom is trained and experienced in the proper installation of tanks systems or components, in accordance with 40 C.F.R. § 264.192(b).

### 3. Major Repairs

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the Permittee must satisfy all requirements under 40 C.F.R. § 264.196 before returning the tank system to use. When a tank system requires extensive repairs, the Permittee shall obtain and submit to DEQ a written certification from a qualified professional engineer, that attests the repaired system is capable of handling hazardous wastes without release for the intended life of the system as required by 40 C.F.R. § 264.196(f).

## C. PERMITTED AND PROHIBITED WASTES

The Permittee is prohibited from storing waste in the tank that is not identified on the Part A Application with a process code of S02. The Permittee is prohibited from treating all hazardous wastes in the tank. The Permittee may store only the hazardous wastes identified on the Part A Application (Appendix A) up to a total volume of 16,800 gallons in the tank, subject to the other terms and conditions of this Permit.

### Tank Inventory within Secondary Containment

Tank Type	Capacity (gallons)	Dimensions	Hazardous Waste Storage
Hazardous Waste Tank <sup>1</sup>	16,800	12' x 20'	Yes
Clean Product Tank <sup>2</sup>	16,800	12' x 20'	No
Clean Product Tank <sup>2</sup>	12,000	12' x 18'	No

1. Includes waste codes D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043.
2. Clean product tanks are not subject to this Permit except as required to ensure adequate secondary containment for the tank system is provided.

## D. SECONDARY CONTAINMENT SYSTEMS

The Permittee shall maintain the secondary containment systems in accordance with the design plans and specifications contained in Attachment 8 and Appendix E. The concrete floor, curbs, and walls shall be maintained free of cracks or gaps, providing an impervious surface to contain leaks until the accumulated liquid can be removed. 40 C.F.R. § 264.193.

Spilled or leaked waste and accumulated precipitation must be removed from sumps or collection area in a timely manner as required by 40 C.F.R. § 264.196(b).

## E. OPERATING REQUIREMENTS

1. The Permittee shall operate and maintain the tanks in accordance with the Permit Application, including all attachments.

2. The Permittee shall not place hazardous wastes, non-hazardous wastes, or products in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. 40 C.F.R. § 264.194(a).
3. The Permittee shall prevent spills and overflows from the tank and containment systems as required by 40 C.F.R. § 264.194(b).
4. The Permittee shall obtain and maintain a detailed chemical analysis of the contained waste and must use analysis and knowledge of ignitability, corrosivity, reactivity and toxicity of a waste, and other available information, to determine if the waste stream is compatible with the tank system. 40 C.F.R. § 264.17(b).
5. Non-hazardous waste, reagents, or products placed in tanks must be subsequently managed as a hazardous waste unless the Permittee first completes a closure of the tank in accordance with all applicable requirements of 40 C.F.R. Part 264 Subpart G, including a Closure Plan and Permit modification approved by DEQ. 40 C.F.R. §§ 261.3(a)(2)(iv), 264.112, and 270.42 and OAC 252:205-9-5.
6. The Permittee shall maintain and operate the secondary containment system, in accordance with the detailed design plans and descriptions contained in Attachment 8 and Appendix E. 40 C.F.R. §§ 264.193(b) through (f).

## **F. SUBPART BB AND CC AIR EMISSIONS REQUIREMENTS FOR EQUIPMENT AND TANKS**

1. The Permittee has determined that the waste managed in the tank system is subject to “in heavy liquid service” requirements of 40 C.F.R. Part 264, Subpart BB and Level 1 requirements of 40 C.F.R. Part 264, Subpart CC. The Permittee shall comply with the controls, monitoring, maintenance, and recordkeeping requirements of these Subparts unless the Permit is modified in accordance with the procedures in 40 C.F.R. § 270.42.
2. Subpart BB monitoring and control requirements include, but are not limited to, the following:
  - a. Open-ended valves or lines – Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or second valve, which is in place to seal the opening except during operations requiring waste to flow through the line as required by 40 C.F.R. § 264.1056.
  - b. Pumps, valves, flanges, and other connectors – Any leak observed based on visual, audible, or olfactory inspection shall be assumed to be a leak detected as defined in 40 C.F.R. § 264.1058(b). The equipment must be tagged with a weatherproof and readily visible identification, marked with the equipment identification number and the date the leak was detected. The tag shall be attached to the leaking equipment.
    - i. When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in 40 C.F.R. § 264.1059.

- ii. The first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.
  - iii. After a valve has been repaired, it shall be visually monitored as part of the daily facility inspection. After two (2) successive months with no leak detection, the valve leak detection identification tag may be removed. For other equipment, such as pumps, the tag may be removed after a successful repair as provided in 40 C.F.R. § 264.1064(c)(2).
  - iv. When each leak is detected, the information required by 40 C.F.R. § 264.1064(d) shall be kept in the facility inspection log and operating record. The records shall reflect a leak was detected by visual, audible, or olfactory inspection in lieu of the information required by 40 C.F.R. § 264.1064(d)(5).
3. The Permittee shall comply with the Tank Level 1 controls required by 40 C.F.R. § 264.1084(c).
4. The Permittee shall report to DEQ each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in 40 C.F.R. § 264.1084(b). The Permittee shall submit a written report within fifteen (15) calendar days of the time that the owner or operator becomes aware of the occurrence. 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 recurrence of the noncompliance. The report shall be signed and dated by signatory for the Permittee that meets the requirements of 40 C.F.R. § 270.11(a). 40 C.F.R. § 264.1090.

## **G. RESPONSE TO LEAKS OR SPILLS**

As required by 40 C.F.R. §§ 264.196(a) through (f), 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:

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release. 40 C.F.R. § 264.196(a).
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 DEQ and demonstrate that a longer time period is required. 40 C.F.R. § 264.196(b).
3. If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 40 C.F.R. 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 publicly owned treatment works, 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 C.F.R. Part 302.

4. 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: (1) prevent further migration of the leak or spill to air, soils, or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water. 40 C.F.R. § 264.196(c).
5. Close the system in accordance with the Closure Plan (Permit Attachment 6) 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 above-ground 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.
6. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee shall not return a tank system to service unless it obtains certification by a qualified Professional Engineer in accordance with 40 C.F.R. § 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. 40 C.F.R. § 264.196(f).

## **H. INSPECTION SCHEDULES AND PROCEDURES**

1. The Permittee shall inspect the tank systems in accordance with Permit Attachment 3 and shall complete the items in Permit Conditions IV.G.2 and IV.G.3 as part of those inspections.
2. The Permittee shall inspect the overfill controls in accordance with the Inspection Plan in Permit Attachment 3. 40 C.F.R. § 264.195(a).
3. The Permittee shall inspect the following components of the tank system once each operating day:
  - a. Above-ground portions of the tank system to detect deterioration, corrosion, or releases of waste in accordance with 40 C.F.R. § 264.195(c)(1).
  - 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 in accordance with 40 C.F.R. § 264.195(b).
  - 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) in accordance with 40 C.F.R. § 264.195(c)(2).

4. The Permittee shall document compliance with Permit Conditions IV.G.1 through IV.G.3 and place this documentation in the operating record for the facility. 40 C.F.R. § 264.195(h).
5. The Permittee is not required to perform inspections for a specific tank if the tank is emptied, drained, and purged of all hazardous waste. The Permittee is required to document in the operating record the presence or absence of hazardous waste in each tank.

## **I. REPORTING REQUIREMENTS**

### **1. Releases of Hazardous Waste**

Releases of hazardous waste from the tank systems or secondary containment systems to the environment must be immediately reported to DEQ. 40 C.F.R. § 264.196(d)(1) and OAC 252:205-13-1(a). A leak or spill of one (1) pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported. 40 C.F.R. § 264.196(d)(2). In accordance with OAC 252:205-13-1(b), releases that are contained within a secondary containment system need not be reported. If the Permittee has reported the release pursuant to 40 C.F.R. Part 302, this report satisfies the requirements of this Permit condition. 40 C.F.R. § 264.196(d)(1).

Within thirty (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 DEQ in accordance with 40 C.F.R. § 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 DEQ 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.
- e. Description of response actions taken or planned.

### **2. Major Tank Repairs**

The Permittee shall submit to DEQ all certifications of major repairs to correct leaks within seven (7) days from returning the tank system to use.

## **J. CLOSURE AND POST-CLOSURE CARE**

1. At closure of the tank system(s), the Permittee shall follow the procedures in Attachment 6. 40 C.F.R. § 264.197(a).

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. 40 C.F.R. §§ 264.197(b) and (c).

## **K. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTES**

1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail. The procedures specified in Permit Attachment 2 and 3 for ignitable and reactive wastes shall be followed. 40 C.F.R. § 264.198(a).
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). 40 C.F.R. § 264.198(b).

## **L. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES**

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system or the same secondary containment system. 40 C.F.R. § 264.199(a).
2. The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material unless the procedures specified in Attachment 3 are followed. 40 C.F.R. § 264.199(b).
3. No incompatible wastes stored in tanks shall utilize common sumps or collection areas for secondary containment.

## **SECTION V SPECIAL CONDITIONS PURSUANT TO THE 1984 HAZARDOUS AND SOLID WASTE AMENDMENTS (HSWA) TO RCRA**

### **A. STANDARD CONDITIONS**

#### **1. Waste Minimization**

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by 40 C.F.R. § 264.73(b)(9), a statement certified according to 40 C.F.R. § 270.11(d) specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to DEQ. The following are suggested criteria for the program:

- a. Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility.
- b. Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities.
- c. Any source reduction and/or recycling measures implemented in the last five (5) years or planned for the near future.
- d. An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste.
- e. Factors that have prevented implementation of source reduction and/or recycling.
- f. Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.).
- g. An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option.
- h. A flow chart or matrix detailing all hazardous wastes it produces by quantity, type, and building/area.
- i. A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste.

j. A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed.

k. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years.

**2. Dust Suppression**

Pursuant to 40 C.F.R. § 266.23(b), and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls, or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

**3. Request for Permit Modification**

a. **DEQ-Initiated Modifications**

If at any time DEQ determines that modification of this Permit is necessary, DEQ may initiate Permit modification proceedings in accordance with the regulations set forth at 40 C.F.R. § 270.41.

b. **Permittee-Initiated Modifications**

The Permittee may, where appropriate, initiate Permit modifications in accordance with the regulations set forth at 40 C.F.R. § 270.42. The Permittee shall follow all applicable requirements and procedures in initiating such proceedings.

c. **Modification of Corrective Action Schedules of Compliance**

The Permittee shall adhere to Corrective Action Schedules of Compliance (CASC) developed for newly identified and previously identified SWMUs covered by this Permit. If at any time the Permittee determines that such schedules cannot be met, the Permittee shall notify DEQ and submit a request for an extension of time with a justification as to why the current CASC cannot be met. Such extension is only effective if approved in writing by DEQ or otherwise approved in accordance with the provisions of this Permit.

**4. Permit Review**

This Permit may be reviewed by DEQ at any time after the date of Permit issuance and may be modified, as necessary. 40 C.F.R. § 270.41. Nothing in this section shall preclude DEQ from reviewing and modifying the Permit at any time during its term.

**5. Compliance with Permit**

In accordance with 40 C.F.R. § 270.4, compliance with a RCRA Permit during its term constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA except for those requirements not included in the Permit which:

a. Become effective by statute.

- b. Are promulgated under 40 C.F.R. Part 268 restricting the placement of hazardous wastes in or on the land.
- c. Are promulgated under 40 C.F.R. Part 264 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of 40 C.F.R. § 270.42 Class 1 Permit modifications.
- d. Are promulgated under 40 C.F.R. Part 265 Subparts AA, BB, or CC limiting air emissions.

**6. Specific Waste Ban**

- a. The Permittee shall not place in any land disposal unit the wastes specified in 40 C.F.R. Part 268 after the effective date of the prohibition unless the Regional Administrator has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.
- b. The Permittee may store waste restricted under 40 C.F.R. Part 268 solely for the purpose of accumulation quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 C.F.R. 268.50(a)(2) including, but not limited to, clearly marking each tank or container.
- c. The Permittee is required to comply with all requirements of 40 C.F.R. § 268.7 as amended. Changes to the Waste Analysis Plan will be considered a Permit modification at the request of the Permittee, pursuant to 40 C.F.R. § 270.42.
- d. The Permittee shall perform a waste analysis at least biennially, when a process changes, when the results of the inspection require under 40 C.F.R. § 264.13(a)(4), or when requested by DEQ to determine whether the waste meets applicable treatment standards. The results shall be maintained in the operating record.
- e. The Permittee must comply with requirements restricting placement of hazardous wastes in or on land which become effective by statute or promulgated under 40 C.F.R. Part 268, regardless of the requirements in this Permit. Failure to comply with the regulations may subject the Permittee to an enforcement action. 40 C.F.R. § 270.4(a)(1)(ii).

**7. Information Submittal**

Failure to comply with any condition of the Permit, including information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of Permit renewal application. Falsification of any submitted information is grounds

for enforcement action, modification, or termination of this Permit. 40 C.F.R. § 270.43.

The Permittee shall ensure that all plans, reports, notifications, and other submissions to DEQ required in this Permit are signed and certified in accordance with 40 C.F.R. § 270.11. One (1) hard copy and one (1) electronic copy for each of these plans, reports, notifications, or other submissions shall be submitted to DEQ by Certified Mail or hand delivered to:

Chief Engineer  
Land Protection Division  
Oklahoma Department of Environmental Quality  
707 North Robinson  
P.O. Box 1677  
Oklahoma City, Oklahoma 73101-1677

**8. Plans and Schedules Incorporated into Permit**

All plans and schedules required by this Permit are, upon approval by DEQ, incorporated into this Permit by reference and become an enforceable part of this Permit. Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by DEQ.

If DEQ determines that actions beyond those provided for, or changes to what is stated herein, are warranted, DEQ may modify this Permit.

**9. Data Retention**

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

**10. Management of Wastes**

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable federal, state, and local requirements. Approval of units for managing wastes and conditions for operating the units, if approved, shall be granted through the permitting process.

## **B. SPECIFIC CONDITION – CLOSURE AND POST-CLOSURE**

### **1. Closure**

The Permittee shall close the hazardous waste management areas in accordance with the Closure Plan, Permit Attachment 6. As required by 40 C.F.R. § 264.112(d)(1), the Permittee shall notify DEQ in writing at least forty-five (45) days prior to commencement of closure activities. Within sixty (60) days of completion of closure activities, the Permittee will submit certification to DEQ that the unit has been closed according to the approved Closure Plan. 40 C.F.R. § 264.115.

### **2. Post-Closure**

DEQ will require post-closure care requirements should permitted units not achieve satisfactory closure standards.

## **C. CORRECTIVE ACTION**

### **1. Corrective Action for Releases**

Section 3004(u) of RCRA, as amended by HSWA, and 40 C.F.R. § 264.101 require that Permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

### **2. Releases Beyond Facility Boundary**

- a. The Permittee shall notify DEQ verbally within twenty-four (24) hours of discovery of any release of hazardous waste or hazardous constituents that has potential to migrate off-site.
- b. Section 3004(v) of RCRA, as amended by HSWA, and Federal regulations promulgated as 40 C.F.R. § 264.101(c) require corrective actions beyond the facility property boundary where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

### **3. Financial Responsibility**

Assurance of financial responsibility for corrective action shall be provided as specified in the Permit following major modification for remedy selection.

## **D. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY IDENTIFIED SWMU(s) AND POTENTIAL AOC(s)**

The Permittee shall notify DEQ in writing of any newly identified SWMU(s) and potential AOC(s) (i.e., a unit or area not specifically identified during the RFA) discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The Permittee shall also notify DEQ of any newly constructed land-based

SWMUs (including but not limited to surface impoundments, waste piles, landfills, land treatment units) and newly constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

- a. The location of the newly identified SWMU or potential AOC on the topographic map required in 40 C.F.R. § 270.14(b)(19). Indicate all existing units (in relation to other SWMUs).
- b. The type and function of the unit.
- c. The general dimensions, capacities, and structural description of the unit (supply any available drawings).
- d. The period during which the unit was operated.
- e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC.
- f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU or whether the AOC should be considered a SWMU.

Based on the results of this notification, DEQ will designate the newly identified AOC(s). Based on the results of this notification or investigation conducted, DEQ will determine the need for further investigation or corrective measures at any newly identified SWMU(s) or AOC(s). If DEQ determines that such investigations are needed, DEQ may require the Permittee to prepare a plan for such investigations.

#### **E. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT SWMU(s) AND AOC(s)**

The Permittee shall notify DEQ in writing, no later than fifteen (15) calendar days after discovery, of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. Such newly discovered releases may be from newly identified SWMUs or AOCs, newly constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the RFA, completed RFI, or investigation of an AOC(s), DEQ had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification. DEQ may require further investigation and/or interim measures for the newly identified release(s) and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the RFI Workplan or a new RFI Workplan. The Permit will be modified to incorporate the investigation, if required.

## **F. INTERIM MEASURES**

### **1. Permit Incorporation**

If during the course of any activity initiated under the Permit, DEQ determines that a release or potential release of hazardous constituents poses a threat to human health and the environment, DEQ may require interim measures. DEQ shall determine the specific measures or require the Permittee to propose measures that control or minimize the threat. The interim measures may include a Permit modification, a schedule for implementation, and a written plan. DEQ shall notify the Permittee in writing of the requirement to perform interim measures. DEQ shall modify this Permit to incorporate interim measures into the Permit.

### **2. Factors to be Considered by DEQ in Determining the Need for Interim Measures**

- a. Time required to develop and implement a final remedy.
- b. Actual and potential exposure to human and environmental receptors.
- c. Actual and potential contamination of drinking water supplies and sensitive ecosystems.
- d. The potential for further degradation of the medium in the absence of interim measures.
- e. Presence of hazardous wastes in containers that may pose a threat of release.
- f. Presence and concentration of hazardous waste including hazardous constituents in soil that has the potential to migrate to ground water or surface water.
- g. Weather conditions that may affect the current levels of contamination.
- h. Risks of fire, explosion, or accident.
- i. Other situations that may pose threats to human health and the environment.

## **G. RFI WORKPLAN**

For any newly identified SWMU(s), an RFI Workplan shall be submitted to DEQ within one hundred and eighty (180) days of identification. The RFI Workplan must address releases from SWMU(s) of hazardous waste or hazardous constituents to all media. DEQ will review for approval the RFI Workplan and any supplement plans and documentation.

## **H. RFI IMPLEMENTATION**

Upon receipt of written approval from DEQ for the RFI Workplan, the Permittee shall implement the RFI in accordance with the schedules and information outlined in the approved Workplan. Deviations from the approved RFI Workplan which are necessary during implementation of activities must be approved by DEQ and fully documented and described in the RFI Final Report.

## **I. RFI FINAL REPORT AND SUMMARY**

Within ninety (90) calendar days after completion of the RFI, or in accordance with an alternative schedule approved by DEQ, the Permittee shall submit an RFI Final Report and Summary. The RFI Final Report shall describe the procedures, methods, and results of all investigations.

## **J. DETERMINATION OF NO FURTHER ACTION**

Should an RFI be required, the Permittee may, based on the results of the RFI and/or other relevant information, submit an application to DEQ for a Class III Permit modification under 40 C.F.R. § 270.42(c) to terminate the RFI/CMS process for a specific unit. This Permit modification application must contain information demonstrating that there are no releases of hazardous waste including hazardous constituents from a particular SWMU at the Facility that pose a threat to human health and/or the environment, as well as additional information required in 40 C.F.R. § 270.42(c). If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during any public comment period required for Class III Permit modifications, DEQ determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, DEQ may grant the requested modification.

If necessary to protect human health or the environment, a determination of no further action shall not preclude DEQ from requiring continued or periodic monitoring of air, soil, groundwater, or surface water when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

A determination of no further action shall not preclude DEQ from requiring further investigations, studies, or remediation at a later date if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the Facility that is likely to pose a threat to human health or the environment. In such a case, DEQ shall initiate a modification to the Permit.

## **K. CORRECTIVE MEASURES STUDY (CMS) PLAN**

In the event that CMS work is required, this Permit shall be modified to include requirements for a CMS Plan.

## **L. CMS IMPLEMENTATION**

In the event that CMS work is required, this Permit shall be modified to include requirements for CMS implementation.

## **M. CMS FINAL REPORT AND SUMMARY**

In the event that the Permittee identifies additional SWMUs or AOCs, this Permit may be modified to include requirements for a CMS Final Report and Summary.

## **N. CORRECTIVE MEASURE SELECTION AND IMPLEMENTATION**

In the event that the Permittee is required to perform additional corrective measures, this Permit may be modified to include corrective measure selection and implementation requirements.

DRAFT

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 1**

**FACILITY DESCRIPTION**

**NOTES:**

- 1. ALL THE PAGES FOR THE ATTACHMENTS ARE TAKEN FROM THE PERMIT APPLICATION AND PAGE NUMBERS MAY NOT BE IN SEQUENCE.**
- 2. THE TABLES, FIGURES, ATTACHMENTS, APPENDICES AND OTHER REFERENCES MENTIONED IN THESE ATTACHMENTS, ARE TAKEN FROM THE PERMIT APPLICATION.**

## FACILITY DESCRIPTION

**ABSTRACT**

Corporate Headquarters: Safety-Kleen Systems, Inc.  
42 Longwater Dr.  
Norwell MA 02061

Responsible Official: Richard Jackson  
District Manager

Facility Address: Safety-Kleen Systems, Inc.  
7528 Newcastle Road  
Oklahoma City, OK 73169

Telephone Number: 405-745-2025  
OKO 980 878 474

U.S. EPA Identification Number: 35° 24' 12" N  
97° 38' 57" W

Geographic Location: Oklahoma County

Landowners: Safety-Kleen  
42 Longwater Drive  
Norwell, MA 02061

Date Operations Began: July 1, 1985

Description of Activities: This facility is a collection point for many spent materials generated by Safety-Kleen customers, the majority of whom are small quantity generators. All wastes are ultimately transported to a Safety-Kleen recycling facility or other properly permitted facility for processing.

Property Description: Approximately 2.9 acres with the following structures:

a. One building with offices and a warehouse for container storage;

- b. One tank farm with three aboveground storage tanks (one contains spent parts washer solvent, two contain product parts **washer** solvent)
- c. A metal shelter used for container storage
- d. One loading dock with a return and fill station

**Facility Type:** Storage in an **above** ground tank (S02) and in containers (S01)

STORAGE UNIT	CAPACITY (gallons)	SECONDARY CONTAINMENT (gallons)	MATERIAL TO BE STORED
Drum Washer/Dumpster Unit	750	2,992	Spent Parts Washer Solvent and Spent Aqueous Parts Washer Solution (D001) <sup>1</sup>  Spent Aqueous Brake Cleaning Solution (D039) <sup>1</sup>
Container Storage Area (Warehouse)	1728	185	Spent Parts Washer Solvent and Spent Aqueous Parts Washer Solution (D001) <sup>1</sup>  Spent Aqueous Brake Cleaning Solution (D039) <sup>1</sup>  Drum Washer/ Dumpster Sediment (D001) <sup>1</sup>  Spent Immersion Cleaner (D006) <sup>1</sup>  Dry Cleaning Waste (0001-or F002) <sup>3</sup>  Paint Waste (D001, F003, F005) <sup>4</sup>  Photographic Imaging Waste (D011) <sup>1</sup>  Contaminated Debris (F002, F003, F005) <sup>5</sup>  Transfer Wastes <sup>2</sup>

Container Storage Area (Metal Shelter)	2,184	1,122	Spent Parts Washer Solvent and Spent Aqueous Parts Washer Solution (0001) <sup>1</sup>  Spent Aqueous Brake Cleaning Solution (D039) <sup>2</sup> , Drum Washer/ Dumpster Sediment (0001) <sup>1</sup>  Spent Immersion Cleaner (D006) <sup>1</sup>  Dry Cleaning Waste {D001 or F002} <sup>3</sup>  Paint Waste {00 01, F003, F005} <sup>4</sup>  Photographic Imaging Waste {D011} <sup>1</sup>  Contaminated Debris (F002, F003, F005) <sup>6</sup>  Transfer Wastes <sup>2</sup>
Tank	16,800	32,672	Spent Parts Washer Solvent and Spent Aqueous Parts Washer Solution (D001) <sup>1</sup>  Spent Aqueous Brake Cleaning Solution (D001) <sup>1</sup>

<sup>1</sup> In addition to the code(s) listed above, these waste codes may be applicable: D004, D005, 0006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, 00 39 D040, 0041, D042, D043

<sup>2</sup> Any of the following waste codes may be applicable

D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, 00 34, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F032, F033, F034, F035, F037, F038, F039

K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K013, K014, K015, K016, KOH, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K046, K048, K049, K050, K051, K052, K060, K061, K062, K064, K065, K066, K068, K071, K073, K083, K084, K085, K086, K087, K088, K090, K091, K093, K094, K095, K096, K097, K098, K099, K100, K101, K102, K103, K104, K105, K106, K107, K108, K109, K110, K111, K112, K113, K114, K115, K116, K117, K118, K123, K124, K125, K126, K131, K132, K136, K140, K141, K142, K143, K144, K145, K147, K148, K149, K150, K151, K156, K157, K158, K159, K160, K169, K170, K171, K172, K174, K175, K176, K177, K178

P001, P002, P003, P004, P005, P007, P008, P010, P011, P012, P013, P014, P015, P016, P017, P018, P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067,

P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, POSS, P089, P092, P093, P094, P095, P096, P097, P098, PD99, P101, P1D2, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P123, P127, P128, P185, P188, P189, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205

U001, U002, U003, U004, U005, U007, U0DB, U009, U010, U011, U012, U014, U015, U016, UD17, U018, U019, U021, U022, U024, U025, U026, U027, U028, U029, U030, U031, U032, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U0B3, U084, U085, U0B6, U087, U088, U089, U090, U091, U092, U093, U004, U095, U097, U098, U0D99, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U156, U157, U158, U159, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U225, U226, U227, U228, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U271, U277, U278, U279, U280, U328, U353, U359, U364, U365, U366, U367, U372, U373, U375, U376, U377, U378, U379, U381, U382, U383, U384, U365, U386, U367, U389, U390, U391, U392, U393, U394, U395, U396, U400, U401, U402, U403, U404, U407, U408, U410, U411

<sup>3</sup> In addition to the code(s) listed above, these waste codes may be applicable: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

<sup>4</sup> In addition to the code(s) listed above, these waste codes may be applicable: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

<sup>5</sup> In addition to the code(s) listed above, these codes may be applicable: D001, D004, D005, D006, D001, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

## 1.0 FACILITY DESCRIPTION {40 CFR 270.14(b)(1)]

### 1.1 DESCRIPTION OF BUSINESS ACTIVITY

Safety-Kleen Systems, Inc. is an international service-oriented company whose customers are primarily engaged in automotive repair, industrial maintenance, and dry cleaning services. The company has been operating since 1968, offering solvent collection and reclamation services for its 500,000 customers, most of whom generate less than 1000 kilograms (2,200 pounds) of hazardous waste per month. In 2007, Safety-Kleen reclaimed more than 200 million gallons of used oil, and over 14 million gallons of used parts washer solvent. Safety-Kleen is also a leading provider of containerized waste services, vacuum services, total project management and other environmental services to a wide array of customers in the automotive, metalworking, manufacturing, and other end markets.

The Oklahoma City Service Center typically operates Monday through Friday, from 6 a.m. to approximately 6 p.m. The Branch General Manager has the ultimate responsibility of the facility's operations. In the event of his/her absence, a qualified designate will assume the responsibility.

Currently, *the* Oklahoma City Service Center offers several services that involve the accumulation, transfer and storage of spent materials. These materials are transported from the Service Center to one of the Safety-Kleen recycle centers or an independent reclaimer. A description of each of these services follows:

#### 1.1.1 Parts Cleaner Service

The original service offered by the Company in 1968 was the parts cleaner service, which remains the primary business activity. This service involves the leasing of degreasing units, which consist of a reservoir and a degreasing area. The reservoir contains a degreaser such as petroleum naphtha solvent, immersion cleaner solvent, or aqueous cleaner. On a regularly scheduled basis, a Safety-Kleen representative cleans and inspects the parts cleaner unit and replaces the reservoir of spent material with clean (most often recycled) product

The Safety-Kleen representative then transports the parts cleaning solution back *to* the Oklahoma City Service Center. The spent petroleum naphtha solvent is transferred from the containers to storage tanks and containers of product are prepared for the next day's services. Used cleaning solutions may also be transferred to the facility's container storage areas. Periodically, a tanker truck is dispatched from one of the recycle centers to deliver a load of clean solvent and collect

the spent solvent at the Service Center. Approximately two-thirds of the solvent used by Safety-Kleen customers is reclaimed with the remainder being purchased from a vendor.

Safety-Kleen has also established a parts cleaner service for users who own their machines. This service, known as the Customer Owned Machine Service (COMS), provides a material reclamation service to these customers regardless of machine model.

A second type of parts cleaner, the immersion cleaner machine, removes varnish and gum from such equipment as carburetors and transmissions. This machine consists of an immersible basket with an agitator affixed to a container containing a non-halogenated hydrocarbon mixture. The spent material remains in the container after delivery to the Service Center, where it is stored in the container storage areas (CSAs) in the warehouse. Periodically, a box trailer truck is dispatched to deliver containers of fresh solvent and collect the containers of spent solvent for reclamation.

A unique feature of this system is that Safety-Kleen provides a "erased loop" system for the recycling of spent solvents. Safety-Kleen delivers clean recycled solvent to the customer and picks up the spent solvent, and transports the spent solvent to Safety-Kleen Recycle Centers where it is distilled into recycled solvent. The recycled solvent or virgin solvent is provided to the customer as part of a machine lease agreement or as part of a COMS service agreement.

A third type of parts cleaner service is available from Safety-Kleen, which utilizes an aqueous cleaning solution. The aqueous parts cleaning units are similar to the petroleum naphtha solvent-based units. On a regularly scheduled basis, a Safety-Kleen representative cleans and inspects the parts cleaner unit and replaces spent material with clean product. A Safety-Kleen representative collects the containers of spent material and stores them in a contained area at the Service Center. Periodically, a box trailer truck is dispatched to deliver containers of fresh solvent and collect the containers of spent solvent.

### **1.1.2 Dry Cleaner Service**

In 1984, Safety-Kleen began offering a service for the collection of filter cartridges and still bottoms contaminated with dry cleaning solvents. These wastes are containerized on the customers' premises and are periodically collected by a Safety-Kleen representative. The containerized waste is accumulated in a contained area of the warehouse prior to transport to a Safety-Kleen accumulation center, recycle center, or other permitted facility.

### **1.1.3 Paint Waste Collection Service**

In 1986, Safety-Kleen initiated a paint waste reclamation program to service the automobile body repair business. Paint gun cleaning machines are leased to customers with a reservoir of lacquer thinner. On a periodic basis the reservoir is replaced and the spent thinner is transported back to the Oklahoma City Service Center for shipment to a reclamation facility. Wastes containing various thinners and paints are also collected in containers on the customers' premises. A Safety-Kleen representative collects these containers and stores them in an enclosed metal shelter which is separate from the office/warehouse. These wastes are transported to a Safety-Kleen Recycle Center or other reclamation facility and the regenerated solvent is distributed to Safety-Kleen customers for use as a product.

### **1.1.4 Aqueous Cleaning Solution**

Spent aqueous cleaning solution is a by-product of brake and/or parts cleaning operations involving aqueous-based cleaners. Based on Safety-Kleen's experience, a small percentage of the cleaning solution may be contaminated from sprays used in shops which have not all together eliminated the use of chlorinated solvents. Although only a small percentage of spent aqueous cleaning solution will be contaminated with solvents, Safety-Kleen considers it prudent to manage spent aqueous cleaning solution as hazardous, unless the generator has analytical data to prove otherwise or certifies that he/she does not use chlorinated solvents in their operations.

Depending on transportation options, Safety-Kleen may choose to commingle the spent aqueous cleaning solution with the spent parts washer cleaning solution in the return and fill drum washer/dumpster unit. This material is then transferred and stored in the facility's bulk waste storage tanks. Empty containers are rinsed and the rinsate is managed as facility-generated waste. If the aqueous solution is commingled, the commingled solution is shipped via a tanker truck to a recycling facility in the same manner as spent parts washer cleaning solution.

### **1.1.5 Photographic Imaging Waste Collection Service**

In 1994, Safety-Kleen began offering a photographic waste reclamation program to medical and dental service industry and photo-imagining facilities. In addition, Safety-Kleen offers a metal replacement unit with two self-contained cartridges in series for silver-bearing wastes. The unit is serviced on a regularly scheduled basis by a Safety-Kleen representative who cleans and inspects the

unit and replaces the self-contained cartridges with new ones. Wastes containing solution and film negatives are collected in containers on the customer's premises. The Safety-Kleen representative collects these containers and transports them to the facility. The wastes are shipped to a metal reclaimer for precious metal reclamation.

#### **1.1.6 Oil and Oily Water**

Used oil and oily water is collected at customer locations in containers. The containers are transported back to the Oklahoma City Service Center and stored in the container storage area (CSA) for future shipment to a Safety-Kleen recycle center.

#### **1.1.7 Transfer Wastes**

Safety-Kleen may also manage other industrial wastes such as solvents, debris, spill cleanup, plating wastes etc., which *may* be hazardous. These wastes are shipped from the generator to the Oklahoma City Service Center in various DOT-approved containers. These *wastes* are managed at the service center on a transfer (10-day) basis.

#### **1.1.8 Household Hazardous Waste**

Safety-Kleen also offers a service for the collection of household hazardous waste. The containers are transported back to the Oklahoma City Service Center and are stored in the container storage area (CSA) for future shipment to a Safety-Kleen recycle center.

## 1.2 DESCRIPTION OF THE FACILITY [40 CFR 270.14(b)(1)]

The Oklahoma City Service Center has been operating as a storage facility since July 1, 1985. The facility consists of the following structures:

- a. A 7,000 square foot warehouse with offices and a contained area for container storage
- b. A 300 square foot enclosed metal shelter used for container storage.
- c. Two 16,800 gallon and one 12,000 gallon aboveground storage tanks. One 16,800 gallon tank and the 12,000 gallon tank are for clean parts washer solution. The other 16,800 gallon tank is for spent parts washer solution/spent aqueous solutions
- e. A solvent return and fill station with a loading dock and two drum washer/dumpster units with a storage capacity of 375 gallons each

Descriptions of the surrounding area and of waste management practices at the Oklahoma City Service Center follow.

Applicable maps and facility drawings are in Appendix C.

### 1.2.1 Solid Waste Management Units

The four solid waste management units associated with this facility are the container storage area in the warehouse, the metal storage building, the solvent return and fill station, and the tank farm. The units are used for storage in tanks (S02) and containers (S01). The location of the units, general dimensions and structural descriptions can be found in the associated maps located in Appendix C. The units have been in service at the location since July 1, 1985. Wastes managed in the units can be found in the Facility Description Abstract. In the event of a release from one of the SWMUs, available information pertaining to the release of hazardous waste would be provided to the DEQ.

There are no known spills at any of these SMWUs.

### 1.2.2 Regional Description

The Oklahoma City Service Center is located in Oklahoma County, Oklahoma approximately 2000 feet southwest of the intersection of State Highway 152 (also known as Newcastle Road) and SW 59<sup>th</sup> Street. This area is zoned for light industrial use: To the best of Safety-Kleen's knowledge, no easements or title, deed or usage restrictions exist which may be in conflict with Safety-Kleen's operations at this site

Oklahoma County covers approximately 718 square miles. The City of Oklahoma City has a population of approximately 718,000. Oklahoma County is part of the Oklahoma City metropolitan area and is an urban/suburban area. Oklahoma County has a temperate, continental climate of the moist, subtropical type. The average summer (June-August) high temperatures range between 88 and 93°F. Winds from the south bring warm air and high humidity, but not high precipitation rates. Average summer months' rainfall is approximately 13 inches. Average total annual precipitation is 36 inches with 9 inches of that being snow. The average winter (December-February) high temperatures range between 36 and 42°F. Average winter lows range between 26 and 31°F. The area's climate is described as "temperate", meaning there are marked seasonal contrasts in temperature and precipitation and with occasional extremes in both temperature and precipitation. Tornadoes and damaging hailstorms are relatively common in the county.

The Service Center is located above the 100-year floodplain. See Appendix C for a copy of the FEMA flood insurance rate map. [40 CFR 270.14(b)(11)(iii)].

The water table in this area is typically within 20 feet of the land surface. Beneath the service center lie two significant aquifers: a shallow aquifer comprised of unconsolidated alluvium and terrace deposits and a deeper aquifer in sandstone bedrock. The unconsolidated alluvium and terrace aquifer in the vicinity of the service center is an important source of water for the irrigation of crops. In this region, the aquifer provides water for irrigation, municipal and industrial use. The water supply of the Oklahoma City Service Center is from a water main supplied by the City of Oklahoma City.

There are numerous oil and gas wells in the Oklahoma City area; none, however, exist within  $\frac{1}{4}$  mile of the service center. Also, none of the following exist within  $\frac{1}{4}$  mile of the facility:

- Public water supply wells
  - Schools
  - Parks
  - Critical habitats

The non-building areas of the facility are paved with concrete, asphalt or gravel, as noted on the site plan in Appendix C. The majority of the vehicular traffic and loading/unloading operations occur at or near the return and fill station and these areas are paved with concrete. The entrance to the facility is on Highway 152 (Newcastle Road) and is approximately 1 ½ miles southwest of the intersection of MacArthur Boulevard and Highway 152. Interstate 40, running east-west in the region, and Interstate 35, running north.-south serve as the major access roads to the Oklahoma City Service Center. Safety-Kleen vehicular traffic from Interstate 40 normally exits at MacArthur Boulevard and travels south to the intersection of Highway 152. Traffic from Interstate 35 typically uses Interstate 240 and travels west to the MacArthur Boulevard exit Highway 152 was designed in accordance with engineering criteria appropriate for sustaining traffic volume in this area. The route trucks that travel the daily routes between the Service Center and customers use Highway 152 to enter/exit the facility. The trucks dispatched from the Recycle and Accumulation Centers to deliver fresh materials/solvents, and pick up used solvents perform the activities at the aboveground tank area, at the return and fill area, or at the raised dock behind the warehouse.

Box trailers dispatched from the Recycle Centers currently pick up approximately 90 containers per week from the Oklahoma City Service Center. This includes containers of spent parts washer solvent, immersion cleaner, dumpster sediment dry cleaning waste, paint waste, photographic waste, aqueous cleaner waste, spent industrial fluids, and other transfer wastes. Service Center trucks exit the facility in the morning with containers of clean solvent and return at the end of the business day with containers of waste.

The tanker trucks which serve the Oklahoma *City* Service Center typically use the northeast gate for both entry and exit to and from the facility (this may change if necessary and the tanker may enter/exit through the northwest gate also).

### **1.2.3 Waste Management Practices**

The Oklahoma City Service Center was designed to facilitate the handling and storage of the wastes resulting from the services offered by Safety-Kleen. The CSA, aboveground storage tanks, and the return and fill all have secondary containment and the Service Center has the equipment necessary for employees to safely manage wastes onsite. Appendix C, Maps and Facility Drawings, contains drawings of the waste management facilities.

Proper handling of hazardous waste is ensured through proper training. Employees are trained on hazardous waste procedures during their initial training and then annually.

The container storage area (CSA) in the warehouse and the metal shelter are for the storage of (1) spent parts washer solvent, (2) spent aqueous parts washer solvent, (3) spent aqueous brake cleaner, (4) drum washer/dumpster sediment, (5) spent immersion cleaner (6) dry cleaning wastes, (7) paint wastes, (8) photographic imaging wastes, (9) contaminated debris, and (10) transfer wastes. The wastes are stored in properly labeled containers to indicate their contents. These containers are inspected each operating day, typically Monday through Friday, to ensure they are properly labeled and that the 10-day transfer limit is not exceeded. Other materials and products which are not regulated may also be stored in this area.

The CSA in the warehouse is an approximately 1000 square foot area(approx. 37.5' x 24.3') within a metal-framed building. It has secondary containment in the form of a concrete floor and curbing with chemical- resistant epoxy coating and two collection trenches. The dimensions of each trench are 8.25' x 1.5' x 1' with a containment volume of 92.5 gallons each. Total secondary containment (both trenches) is 185 gallons. No more than 1728 gallons of waste materials will be stored in the CSA at any time.

The metal shelter drum storage area is a 300 square foot free-standing building. It has secondary containment in the form of a 20' x 15' x 6" metal pan at its base and has a total containment volume of 1122 gallons. No more than 2184 gallons of waste materials will be stored in the building at any time.

Waste containers will be stored on pallets (where feasible) and adequate aisle space will be maintained in the CSAs. Containers will be moved with a forklift, pallet jack, or drum dolly.

At the Oklahoma City Service Center, spent parts cleaning solvents and spent aqueous solutions are accumulated in a 16,800 gallon aboveground storage tank via the return and fill station. Containers of spent parts cleaning solvents and spent aqueous solutions are emptied into a drum washer/dumpster unit in the return and fill station. Material in the drum washer/dumpster is pumped into the spent solvent storage tanks. The return and fill station has secondary containment in the form of a 40' x 23' x 4" epoxy-coated concrete slab at its base with a total containment capacity of 2292 gallons.

The aboveground tanks have been designed in accordance with NFPA standards and are constructed of carbon steel and are designed to be compatible with the materials stored within them. The tanks' exteriors are painted a light color to reflect sunlight and minimize corrosion by protecting the steel. Any corrosion that may develop will be easily observed due to the light color of the paint.

The secondary containment for the solvent tank farm is a steel reinforced concrete slab and dike measuring approximately 52' x 21' x 4' with a secondary containment capacity of 32,672 gallons. There are three aboveground storage tanks located in the tank farm. One 16,800 gallon tank for spent parts washer solvent, one 16,800 gallon tank for clean parts washer solution and one 12,000 gallon tank for clean parts washer solution. Each tank is equipped with an audiovisual high level alarm.

OKD980878474

Safety-Kleen Systems, Inc.  
Oklahoma City, OK  
Revised December 2023

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 2**

**WASTE ANALYSIS PLAN**

**WASTE ANALYSIS PLAN ABSTRACT**

WASTE DESCRIPTION	EPA WASTE CODES	ESTIMATED FACILITY CAPACITY <sup>1</sup>	ESTIMATED ANNUAL AMOUNT <sup>2</sup>
Spent Parts Washer Solvent	D001 <sup>3</sup>	20,779 <sup>4,5</sup>	451
Bottom Sediment from Waste Tanks	D001 <sup>3</sup>	N/A	Variable
Spent Immersion Cleaner	D006 <sup>3</sup>	3,979 <sup>4</sup>	13
Dry Cleaning Waste	D001 or F002 <sup>3</sup>	3,979 <sup>4</sup>	57
Paint Waste	D001, F003, and F005 <sup>3</sup>	3,979 <sup>4</sup>	34
Drum Washer/Dumpster Sediment	D001 <sup>3</sup>	3,979 <sup>4</sup>	54
Aqueous Brake Cleaner Solution	D039 <sup>3</sup>	20,779 <sup>4,5</sup>	35
Aqueous Parts Cleaning Solution	Varies <sup>3</sup>	20,779 <sup>4,5</sup>	39
Photographic Imaging Waste	D011 <sup>3</sup>	3,979 <sup>4</sup>	5
Transfer Waste	Varies <sup>3,4</sup>	3,979 <sup>4</sup>	Variable
Contaminated Debris	F002, F003, F005 <sup>7</sup>	3,979 <sup>4</sup>	30

<sup>1</sup> The estimated facility capacity in gallons

<sup>2</sup> The estimated annual amount in thousands of gallons

<sup>3</sup> In addition to the code(s) listed above, these codes may be applicable: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

<sup>4</sup> The total amount of containerized waste stored in the warehouse container storage area will not exceed 1,728 gallons and the total amount stored in the metal shelter will not exceed 2,184 gallons

<sup>5</sup> The total amount of spent parts washer solvent and spent aqueous solution stored in the waste tank will not exceed a maximum of 16,800 gallons

<sup>7</sup> Any of the following waste codes may be applicable: D001, D002, D003, D004, D006, D007, D008, D009, D010, D011, D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043

F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F032, F033, F034, F035, F037, F038, F039

K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K046, K048, K049, K050, K051, K052, K060, K061, K062, K064, K065, K066, K068, K071, K073, K083, K084, K085, K086, K087, K088, K090, K091, K093, K094, K095, K096, K097, K098, K099, K100, K101, K102, K103, K104, K105, K106, K107, K108, K109, K110, K111, K112, K113, K114, K115, K116, K117, K118, K123, K124, K125, K126, K131, K132, K136, K140, K141, K142, K143, K144, K145, K147, K148, K149, K150, K151, K156, K157, K158, K159, K160, K169, K170, K171, K172, K174, K175, K176, K177, K178

P001, P002, P003, P004, P005, P007, P008, P010, P011, P012, P013, P014, P015, P016, P017, P018,

P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P014, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P123, P127, P128, P185, P188, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205

U001, U002, U003, U004, U005, U007, U08, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U021, U022, U024, U025, U026, U027, U028, U029, U030, U031, U032, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U042, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U156, U157, U158, U159, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U225, U226, U227, U228, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U271, U277, U278, U279, U280, U328, U353, U359, U364, U365, U366, U367, U372, U373, U375, U376, U377, U378, U379, U381, U382, U383, U384, U385, U386, U387, U389, U390, U391, U392, U393, U394, U395, U396, U400, U401, U402, U403, U404, U407, U408, U410, U411

## 2.0 WASTE ANALYSIS PLAN [40 CFR 270.14(b)(3)]

### 2.1 DESCRIPTION OF WASTES

Several types of waste result from the servicing of Safety-Kleen customers and maintenance of the facility. Descriptions of these wastes are as follows:

#### 2.1.1 Wastes Resulting From the Parts Washer Service

Spent parts washer cleaning solvent and spent aqueous solutions are accumulated in a 16,800-gallon aboveground storage tank via the return and fill station. Containers of parts washer waste are emptied into the drum washer in the return and fill station, which in turn, empties into the tanks. Additionally, parts washer wastes may also be managed in containers. This waste handling method results in the following types of parts washer solvent waste:

- a. Spent Parts Cleaning Solvents and Spent Aqueous Solutions: The spent parts cleaner solvent is removed from the tank by a tanker truck on a varying schedule. This waste is ignitable (D001) and may exhibit the toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, 0023, D024, D025, D026, D027, D028, D029, D030, 0032, D033, D034, D035, D036, D037, D038, D039, D040, 0041, D042, D043. The spent parts washer waste will be transported to a Safety-Kleen Recycle Center or other property permitted facility.
- b. Bottom Sediment in the Tanks: Periodically, it is necessary to remove sediment and other heavy material from the bottom of the tanks. A vacuum truck is typically used for this purpose. The sediment may be ignitable (D001) and may exhibit the toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, 0028, 0029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042,

D043. This waste is transported to a Safety-Kleen Recycle Center or other property permitted facility.

- c. Dumpster Washer/Dumpster Sediment: Sediment also accumulates in the bottom of the drum washer in the return and fill station. This sediment is typically removed manually with shovels or scoops. It is placed in a satellite accumulation container in the return and fill area and moved to a container storage area once full. The chemical composition of this waste is analogous to that of the bottom sediment from the tank. This waste sediment will be transported to a Safety-Kleen Recycle Center or other properly permitted facility.
- d. Spent Immersion Cleaner: This waste remains in the container in which it was originally used until it is received at the recycle center. The immersion cleaner may exhibit the toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043. The waste immersion cleaner will be transported to a Safety-Kleen Recycle Center or other properly permitted facility.
- e. Aqueous Brake Cleaner Waste: This waste may be placed into the spent parts cleaner tanks, bulked onsite into larger DOT-approved containers and stored in any of the CSAs, or remain in the container in which it was originally used/transported until it is received at the Recycle Center. The aqueous parts cleaner waste may exhibit the following toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043. This waste will be transported to a Safety-Kleen Recycle Center or other properly permitted facility.

### **2.1.2 Wastes Resulting from Dry Cleaner Service**

Dry cleaning wastes consist of spent filter cartridges, separator water, powder residue from diatomaceous or other powder filter systems, still bottoms, and other dry cleaning

solvent contaminated wastes. These wastes are packaged on the customer's premises in containers. While approximately 95 percent of the dry cleaning waste that customers generate is perchloroethylene waste (F002), the remaining generate waste that contains either mineral spirits/petroleum naphtha (D001 ), trichloro-trifluoroethane (F002), or 1,1,1-trichloroethane (F002). The dry cleaning waste may exhibit the following toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, 0024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043. The waste remains in the container in which it was originally packaged until it is received at a Safety-Kleen Recycle Center or other properly permitted facility. Mineral spirits and trichloro-trifluoroethane wastes are managed as transfer wastes at the facility.

### **2.1.3 Wastes Resulting from Paint Gun Cleaner Service**

Paint wastes consist of various lacquer thinners such as acetone, isopropyl alcohol, methyl ethyl ketone, toluene, xylene and acetate compounds (D001, F003, and F005) and may also exhibit the following toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, 0024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043. The wastes are packaged on the customer's premises. These containers may be stored in any or all of the CSAs. These wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

### **2.1.4 Transfer Wastes (also known as Containerized Waste Services)**

Safety-Kleen offers Containerized Waste Service (CWS) to customers. Under this service, the Service Center manages hazardous wastes and non-hazardous wastes from our industrial customers. The service involves picking up containerized CWS wastes from generators and transporting them to the facility for storage. The containers

are accumulated in the CSAs of the east and west warehouses and metal shelter prior to transport to a Safety-Kleen Accumulation Center, Recycle Center, or other property permitted facility.

CWS wastes may include various solvents (including halogenated and non-halogenated solvents - F001, F002, F004) and ignitable solvents (D001), acids and caustics (D002), lacquer thinners and paint wastes (D001, F003, F005), imaging wastes (D011), and various non-liquid hazardous wastes.

The following RCRA hazardous waste categories and codes may be stored in the CSAs: ignitable wastes (D001), corrosive wastes (D002), reactive wastes (D003) and toxic wastes which may exhibit any of the following toxicity characteristics (D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043).

Occasionally U-listed, P-listed and rarely K-listed wastes are also stored as transfer (CWS) waste. These wastes could contain any or all of the above-referenced waste codes, as well as any or all of the waste codes listed on Waste Analysis Plan Abstract under footnote #7.

All transfer (CWS) wastes are containerized by the customer and picked by the Oklahoma City Service Center for storage prior to transport to a Safety-Kleen Accumulation Center, Recycle Center, or other property permitted facility.

## **2.1.5 Photographic Imaging Waste Collection Service**

Photographic imaging wastes consist of fixer and developer solutions, other associated photographic solutions and waste containing silver and film negatives. Photographic imaging wastes exhibit the toxicity characteristic D011. The wastes are packaged on the customer's premises. These wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

## 2.1.6 Contaminated Debris

Solid and liquid debris wastes are typically accumulated at the return and fill station and in the east and west warehouses, however, additional satellite contaminated debris drums may be found at various locations throughout the facility. Typically, wastes such as rags, wipes, gloves, sampling equipment, absorbents, etc. are placed in satellite containers. Once the satellite containers are full, they are moved to a container storage area (CSA) until shipped to a Safety-Kleen Recycle Center or other properly permitted facility. The contaminated debris may carry the following waste codes: F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, 0024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043.

## 2.2 QUALITY CONTROL PROCEDURES

Spent materials are the primary feedstock for the generation of Safety-Kleen recycled solvent products. As a result, quality control of the spent materials is necessary to monitor product quality and regulatory consistency. The Oklahoma City facility collects spent materials from thousands of customers, most of whom are small quantity generators, and containers containing recoverable solvents are returned to the Service Center for shipment to a Recycle Center or other permitted facility. With such large numbers of waste generators and waste shipments, performing detailed analyses at the facility is economically and logically infeasible.

Most of the materials collected at the Service Center are managed in the closed loop system and 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 Centers. This mode of operation has been proven to safeguard the recycling process and maintain a quality

product.

The generator will notify the Safety-Kleen Representative upon servicing, if the process or nature of his business has changed. If it is suspected that that waste is non-conforming material the generator will be contacted. Per 40 CFR 262.11(c), the generator may use generator knowledge and/or analysis to profile the non-conforming material. Records of all rejected wastes will be kept on file at the Service Center. 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 or placing a COM (customer owned machine) service, the customer's business is reviewed. Where the possibility exists for contamination of the parts cleaner solvent (e.g., pesticide, herbicide or pharmaceutical operations), the process is reviewed to ensure that the solvent is protected from the sources of contamination. In reviewing a customer's business, the Safety-Kleen Representative provides parts washer customers with written and verbal information on use of the parts washer unit. This information will contain at a minimum:

- Proper usage and management of the unit
- Information on the reasons to not add materials to the unit, and examples of what not to add to the unit

Safety-Kleen conducts qualitative/visual analysis as a part of all parts washer and immersion cleaner services. Qualitative/visual analysis is not conducted on the dry cleaning and paint waste streams as these containers are not opened by the Safety-Kleen service representative and the likelihood of contamination is remote.

Safety-Kleen Representatives are instructed to visually examine the spent solvents (parts washer and immersion cleaner) when the machines are serviced, noting the quantity, odor, and appearance of the material recovered as follows:

- a. The quantity of used solvent in the drum - When the amount of parts cleaner

solvent or immersion cleaner liquid is more than 25% greater than originally supplied, the container will not be accepted. Contingent on the customer's responses to Safety-Kleen's inquiry regarding the customer's operation and handling practices, the solvent is accepted or left with the customer until a site specific profile is completed to determine its acceptability. Per 40 CFR 262.11(c), the generator may use generator knowledge and/or analysis to profile the non-conforming material.

- b. The odor of the liquid in the container - Personnel must never make an effort to "sniff" the solvent. However, if in the normal course of servicing the customer, the odor of the liquid in the container is noticed to be different from that of parts cleaner solvent or immersion cleaner, the container will not be accepted. Contingent on the customer's responses to Safety-Kleen's inquiry regarding the customer's operation and handling practices, the solvent is accepted or left with the customer until a site specific profile is completed to determine its acceptability. Per 40 CFR 262.11(c), the generator may use generator knowledge and/or analysis to profile the non-conforming material.
- c. The appearance of the liquid in the drum - The spent parts cleaner solvents have a normally greenish-brown or black appearance. Certain contaminants containing dyes and color pigments (such as transmission fluid, printers' ink, and water-based paints) may change the color of the spent parts cleaner solvent to other colors. Spent immersion cleaner should have a dark brown to almost black appearance. Liquids in the containers which deviate from the above description or which contain substantial amounts of water, and/or high density solvent at the bottom will not be accepted. Contingent on the customer's responses to Safety-Kleen's inquiry regarding the customer's operation and handling practices, the solvent is accepted or left with the customer until a site specific profile is completed to determine its acceptability. Per 40 CFR 262.11(c), the generator may use generator knowledge and/or analysis to profile the non-conforming material.

It should be noted that tank bottoms waste and drum washer/dumpster sediment waste are generated as a result of processing parts washer waste. The safeguards outlined in 2.2.1 (a through c) ensure the waste streams remain consistent.

At the Service Center, the Safety-Kleen representative or the material handler again observes the quantity, odor, and appearance prior to emptying the parts cleaner solvent into the wet dumpster. Drums with questionable contents are managed as described above. All other containers (immersion cleaner, aqueous parts cleaning solvent) are verified upon receipt at a Recycle Center. In addition, receipt analysis is performed by the Safety-Kleen Recycle Centers on all inbound bulk spent solvent deliveries; including a screen for atypical flash point, PCBs, and halogenated organics.

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

The dry cleaner and paint wastes are collected from facilities where typically there is one process and the possibility of cross-contamination from other chemicals or wastes is minimal. These wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

### **2.2.3 Transfer Waste (also known as Containerized Waste Service)**

Containerized Waste Service (CWS) are collected from primarily industrial customers. CWS wastes may include cleaning solvents, halogenated solvents (F001, F002, F004), acids and caustics (D002), lacquer thinners and paint wastes (D001, F003, F005), imaging wastes (D011), and various coolants. CWS wastes may also exhibit the following toxicity characteristics: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, 0024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043.

The service involves picking up containerized wastes from the generators and transporting them to the facility for storage. The containers are accumulated in the container storage areas of the facility prior to transport to a Safety-Kleen Accumulation Center, Recycle Center, or other properly permitted facility. These wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

## 2.2.4 Photographic Imaging Waste Collection Service

Photographic imaging wastes are the result of developing and fixing of photos. Wastes are collected from facilities where typically one process is managed and the possibility of cross contamination from other wastes or chemicals is minimal. These wastes remain in the container in which they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted facility.

Samples of this waste are collected at the Recycle Center. The contents are either verified and accepted, or the container is rejected. Rejected wastes are either returned to the customer or properly disposed at an approved facility.

## 2.3 RECHARACTERIZATION OF WASTE STREAMS (QUALITATIVE ANALYSIS) [40 CFR 270.14(b)(2)]

After 50 years of servicing over 250,000 parts washer customers each year, Safety-Kleen has determined that the wastes generated by its customers are relatively homogeneous. The homogeneity of these wastes are evaluated annually through the Safety-Kleen Recharacterization Process (Quantitative Analysis).

Analytical data from the Recharacterization sampling is subjected to an EPA SW846 approved statistical model. The Safety-Kleen Oklahoma City facility is included each year as part of the Annual Recharacterization sampling.

Samples included in the Annual Recharacterization process are selected from random customers at selected Safety-Kleen facilities.

The waste streams collected by Safety-Kleen are uniform across business types and geographical locations. This is demonstrated by the minimal changes in the codes assigned to each stream through the Annual Recharacterization statistical evaluation each year. Homogeneity of the streams was further confirmed in 2004. In 2004, Safety-Kleen conducted an Annual Recharacterization using California customer data only. Safety-Kleen then conducted a statistical comparison of the 'California only' Annual Recharacterization result with the results from the National Annual Recharacterization (Exhibit C-3). Note the conclusion that California customer wastes are no different than the streams generated by Safety-Kleen customers in the rest of the country.

The waste streams included in the Safety-Kleen Recharacterization process are by their

nature consistent and predictable. The process includes streams generated by Safety-Kleen customers and terminated as permitted streams at Safety-Kleen facilities as well as streams generated by Safety-Kleen facilities. Waste streams included in the Recharacterization process for 2023 were:

CUSTOMER GENERATED	SAFETY-KLEEN GENERATED
Immersion Cleaner	Spent Mineral Spirits Parts Washer Solvent Tank Bottoms (bulk)
Spent Mineral Spirits Parts Washer Solvent	Bulk Tank Spent Mineral Spirits Solvent
Paint Gun Cleaner/Paint Wastes	Spent Mineral Spirits Parts Washer Solvent Sludge/Drum Washer Mud
Dry Cleaning Related Streams (Perc and Naphtha, filters, bottoms, and separator water)	Branch Contaminated Debris

Final 2023 Annual Recharacterization (National) Waste Code Assignments are included in Exhibit C-1.

The purpose of the Recharacterization is to conduct a waste determination and to determine the waste codes applicable to core waste streams managed and generated by Safety-Kleen facilities. As such, a waste stream may be excluded from Recharacterization when it has been determined that the codes assigned to the stream are stable and marginal changes in trace constituents will not affect the management of the stream. Streams expected to be phased out of the Recharacterization program in coming years include the Dry Cleaning related streams and Paint Gun Cleaner/Paint Wastes streams. Lastly, a set of analytes may be omitted if they are not expected or demonstrated to not be present in a waste stream. Pesticides and herbicides have never been included in the Recharacterization process as these constituents are not allowed in wastes picked up by Safety-Kleen. Analysis for semivolatiles is in the process of being phased out as codes for semivolatiles have never been assigned.

Note: All samples pulled during the Recharacterization sampling event are identified by customer and date. If the analytical from a sample pulled during the Recharacterization process determines a customer's waste is non-conforming, that customer's waste will be excluded from the Safety-Kleen core waste program. Future pickups of waste from any non-conforming customer will be profiled and managed as 10-day transfer waste.

Details on the Statistical Method employed by Safety-Kleen for its Annual Recharacterization process are included in Exhibit C-2. As noted in this Exhibit, the Statistical method has been developed and is conducted in accordance with U.S. EPA

SW846 Chapter 9 (September 1986) guidance on determining if a waste is hazardous. The Annual Recharacterization Sample Testing Protocol is located in Exhibit C-4.

## **2.4 WASTE ANALYSIS PLAN UPDATE [40 CFR 270.14(b)(3)]**

This waste analysis plan will be modified when a new waste product is collected or when sampling and material management methods change. Revision of the plan is the responsibility of the corporate Environmental Compliance Department.

## **2.5 LAND BAN NOTIFICATION / CERTIFICATION FORMS (40 CFR 268)**

In accordance with 40 CFR 268.7, Safety-Kleen will provide notification/certification for wastes banned from landfill disposal.

This 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/terminating facility.

## **2.6 SUBPART CC COMPLIANCE (40 CFR 264 SUBPART CC)**

The Safety-Kleen Oklahoma City Service Center shall control air pollutant emissions for applicable hazardous waste management units at this facility pursuant to the requirements of RCRA Subpart CC, through implementation of this compliance program.

This plan describes this facility's waste determination procedures, tank and container design/management practices, organic emission controls, inspection and monitoring, and recordkeeping and reporting requirements, pursuant to standards promulgated under RCRA Subpart CC.

### **2.6.1 Waste Determination Procedures (40 CFR 264.13)**

## **Waste Determination**

For purposes of waste determination, the facilities utilize knowledge developed in the Waste Characteristics portion of the sites' hazardous waste permit on an annual basis, the waste streams are recharacterized by collecting small retain samples of each waste shipment arriving at a Safety-Kleen Recycle Center for a period of several weeks.

Analyses are performed on composite samples, including flash point, pH, specific gravity, and TCLP (metals, volatiles, and semi-volatiles). Other analyses are performed throughout the year as necessary. In addition, the facility may use knowledge of the waste based on information included in manifests, shipping papers, or waste certification notices to confirm waste determination for the generator or the ultimate receiving facility.

Based upon this knowledge, it has been determined that all hazardous waste managed in tanks or applicable containers at the facility may contain an average volatile organic concentration of greater than 500 ppmw at the point of waste generation. Therefore, all hazardous wastes managed in tanks or applicable containers shall be managed in accordance with applicable Subpart CC control standards. Under such a management scenario, no direct measurements will be conducted. This is consistent with 40 CFR 264.1083(a)(1).

## **Point of Waste Origination**

The point of waste origination for all hazardous wastes generated from off-site sources and transported to a Safety-Kleen Service Center in DOT authorized containers, which will subsequently be managed in tanks or containers on-site, is the facility boundary at the entrance gate.

For hazardous waste generated on-site, the point of waste origination is the point of hazardous waste generation, as defined under hazardous waste regulations.

### **2.6.2 Container Standards [40 CFR 264.1086]**

Containers managing hazardous wastes generally fall into three categories:

1. Hazardous waste containers less than 26 gallons in capacity are wholly exempt from consideration under Subpart CC. Containers of hazardous wastes that are transferred through the facility are "still in the course of transportation" and therefore are exempt from Subpart CC.
2. Containers with capacities between 26 gallons and 122 gallons are all Level 1 containers. The Level 1 containers have covers that are designed with no gaps, holes, cracks, or other open spaces into the container. In addition, all containers used to handle hazardous waste meet U.S. DOT Performance Oriented Packaging Standards.
3. Containers of greater than 122 gallons that manage hazardous wastes at this facility are not in light service and are Level 1 covered containers designed and operated with no gaps, holes, cracks, or other open spaces into the container.

### **Level 1 Containers [40 CFR 264.1086(c)]**

Provided below is a summary table of the criteria applicable for a container to be identified and managed as a Level 1 container.

<b>Level</b>	<b>Volume</b>	<b>Usage</b>	<b>Requirements</b>
Level 1	<25 gallons but ≤ 122 gallons Or >122 gallons	Any hazardous waste not "in light material service"	-Meet DOT specs or is a lab pack -Keep closed except when adding or removing waste -Safety relief device -Minimize exposure of waste <i>when transferring</i>

A hazardous waste is a "light material" if it (1) contains at least one organic constituent with a vapor pressure above 0.3 (kPa) at 20°C, and (2) has a total concentration of such constituents of 20% or greater by weight. This definition will generally apply to all hazardous waste received at the facility in non-bulk containers.

### **2.6.2.1 Inspections [40 CFR 264.1086(c)(4)]**

All hazardous waste received from offsite sources are received in containers. All Level 1 containers managing hazardous waste subject to Subpart CC received from off-site sources that will not be completely emptied within 24 hours of receipt will be inspected to ensure that all applicable covers and closure devices are closed. This inspection already occurs as part of the facility inspection. Therefore, compliance with the inspection requirements of Subpart CC is incorporated in the facility inspection plan by this reference.

Defective containers will be remediated within 24 hours of observation, and initial remediation will be attempted within 12 hours observation.

On-Site Generated Hazardous Waste containers greater than 26 gallons will be visually inspected upon their initial filling to ensure that all openings are properly closed and/or covered. Satellite accumulation containers managed in accordance with 40 CFR 262.34(c)(1) are not subject to Subpart CC requirements.

### **2.6.2.2 Monitoring [40 CFR 264.1088]**

Off-Site hazardous Waste Level 1 containers managed at the Service Center are not subject to monitoring for no detectable emissions (NDE). Therefore, no monitoring for NDE will be conducted on such containers. However, they will be closed when not involved in transfer activities.

### **2.6.2.3 Transferring Hazardous Waste [40 CFR 264.1086(c)(3)(i),(ii)]**

Container to container transfer will typically be done at the Service Center when it is necessary to remove waste from a damaged container to a non-damaged container that will provide containment for the waste, or to place the entire container into a larger container. An example would be placing a 55 gallon container into an 85 gallon salvage drum. This may occur for both liquid and solid wastes. Only container

openings that are necessary to add or remove waste from each container will be open during the transfer. This activity will be conducted in accordance with 40 CFR 265.1087(c)(3)(ii) for Level 1 containers.

Container to tank transfer involving liquids will be done regularly for Level 1 containers. Following is an explanation of this activity.

Spent mineral spirits from parts washers is accumulated in a 16,800- gallon aboveground storage tank via the Return and Fill station. Typically, 5-, 16-, 30-, and 55-gallon containers are poured into the dumpster in the return and fill station, and the material in the dumpster is pumped into the spent solvent storage tank. The return and fill station has secondary containment in the form of reinforced concrete slab and curbs.

### **2.6.3 TANK STANDARDS (40 CFR 264.1084)**

Safety-Kleen will manage organic wastes at the Service Center in the waste mineral spirits storage tank. The waste mineral spirits storage (WMSS) tank will manage hazardous waste with 500 ppmw or greater VO Concentration. Therefore, this tank is subject to Level 1 controls. Please note, there are two other storage tanks at the Service Center, but they are not utilized to store hazardous waste and therefore are exempt from regulation under Subpart CC.

The WMSS tank is a non-pressurized, vertical, aboveground storage tank. It is constructed with a fixed roof and is 20' tall and 12' in diameter. The WMSS tank has a 16,800 gallon storage capacity. The tank is constructed of 3/16" thick (1/4" thick in the lower third of the tank) carbon steel. The tank has an exterior coating of white paint. The tank is constructed in accordance with Underwriters Laboratories Standard 142. The waste in this tank exhibits a vapor pressure of less than 5.2 kPa (. 75 psia). The measured vapor pressure of the waste managed in tanks is = 0.2 psia. The maximum organic vapor pressure is determined using knowledge of the waste pursuant to 264.1083(c).

All of the tanks present at this Service Center are designed so that all opening covers can be closed with no visible gaps, holes, cracks, or other open spaces into the interior of the tank. The cover and all cover openings operate with no detectable emissions when in a closed position. Cover openings are maintained in a closed position at all times except when waste is being added to or removed from the tanks, or when necessary sampling or repair/maintenance is performed on the tanks.

The tanks are vented to the atmosphere through a safety device {pressure vacuum vent} which has been designed to operate with no detectable organic emissions when the device is in the closed position. These tanks are equipped with pressure vacuum vents that operate at 2oz of pressure and 1oz of vacuum. In addition, these tanks are designed with a long-bolted man way pressure relief device which remains in the closed position when not in use to relieve pressure.

Below is a summary of the criteria that must be met in order for Safety-Kleen's hazardous waste tank to be subject to Level 1 controls.

<b>Tank Design Capacity</b>	<b>Maximum Vapor Pressure of</b>
<19,789 Gallons	11.26 psi
19,789 Gallons - < 39,841	4.0 psi
>39,841 Gallons	0.75 psi

#### **2.6.3.1        Level 1 Tank [40 CFR 264.1084(c)]**

The Level 1 tank must be managed with a fixed roof. All openings in the tank systems must be closed except when adding, removing, or conducting routine maintenance on the tanks. Safety devices and conservation vents are allowed on such tanks.

The WMSS tanks store waste mineral spirits. Vapor pressure testing performed on this materials in product form, identify the following:

SK 150 Mineral Spirits is .004 psia at 68°F

Since the material has a vapor pressure that is significantly lower than the maximum

threshold of 11.26 psia for Level 1 tanks, Safety-Kleen Systems, Inc. has determined that the hazardous waste storage tank at the Service Center has a design capacity of less than 19,789 gallons, therefore the waste materials are subject to Level 1 controls.

The vapor pressure of the waste in the tank will fluctuate on a periodic basis due to the cyclic generation of hazardous waste streams by off-site generators. The maximum vapor pressure in the hazardous waste tank will not exceed the applicable Level 1 threshold. The maximum organic vapor pressure is determined using process knowledge of the hazardous waste historically managed pursuant to 40 CFR 264.1084(c)(1).

#### **2.6.4 CLOSED VENT SYSTEMS AND CONTROL DEVICES (40 CFR 264.1087)**

This standard is not applicable because the hazardous waste management unit (i.e., tanks and containers) requiring such control equipment, in accordance with RCRA Subpart CC, are not managed at this facility.

#### **2.6.5 INSPECTION AND MONITORING (40 CFR 264.1088)**

Visual inspection of the tank closure devices will be conducted on an annual basis. In addition, the hazardous waste storage tank is inspected during the facility's daily inspection. This daily inspection includes check of the high level alarm and of the volume (according to the gauge) held in the tank. Sudden deviations in the solvent volumes will be investigated and the cause determined. If necessary, repairs will be initiated immediately. The hazardous waste solvent must not exceed 95% of the tank volume at any time. The piping and secondary containment for tank is checked for leaks, cracks, or other deterioration. Any damage to the tank, piping (such as rust, seepage, or loose fixtures) must be noted and repairs initiated.

#### **2.7 MISCELLANEOUS UNITS (40 CFR SUBPART X)**

##### **2.7.1 Summary**

OKD980878474

Safety-Kleen Systems, Inc.  
Oklahoma City, OK  
Revised December 2023

Safety-Kleen Systems, Inc. does not have any miscellaneous units on site, therefore this section does not apply.

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 3**

**INSPECTION REQUIREMENTS**

## PREPAREDNESS AND PREVENTION PLAN

### ABSTRACT

SECURITY MEASURES: The site is secured as follows:

1. There is a chain link fence topped with 3 strands of barbed *wire* surrounding the facility.
2. Warning signs are posted at all entrances
3. Locks are on all entrances to the warehouse and on the metal shelter
4. Remote controls for all tank operations are located inside the warehouse
5. There *is* nighttime outdoor lighting

INSPECTION PROCEDURES: See Appendix E for an example Facility Inspection Record

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

1. Internal communications will be by voice or intercom
2. Telephones are available in the office and the warehouse
3. Fire extinguishers are available at numerous locations in the warehouse, office, tank farm, return and fill and metal shelter as indicated on the Emergency Equipment Plan in Appendix F
4. Water is available from the City of Oklahoma City for various uses throughout the facility (i.e. emergency eyewash and shower). Water for fire fighting is available from a nearby fire hydrant
5. Spill containment equipment is available near storage and material handling areas.

### **3.0 PREPAREDNESS AND PREVENTION PLAN (40 CFR 264 SUBPART CJ)**

#### **3.1 SECURITY MEASURES [40 CFR 270.14(b)(4)]**

The facility is secured with a six foot high chain link fence topped with 3 strands of barbed wire surrounding the facility. All access gates are locked when the facility is unoccupied. The facility has warning signs stating "Danger-Unauthorized Personnel Keep Out," (or similar language) which are visible from twenty-five feet, posted at the entrances. In addition, outdoor lights are on at night

The office/warehouse buildings are secured with locks on all outer doors, and warning signs are posted at all entrances to work and waste storage areas. The container waste storage areas are located in the warehouse and metal shelter, which are locked during non-working hours. The tanks are inaccessible in that material cannot be added or removed unless the pumps are activated, the controls for which, are located inside the warehouse. The pumps are not activated unless parts cleaner solvent product or waste is being added to or removed from the tanks by Safety-Kleen personnel. As a result, the tank and container storage areas are inaccessible except by Safety-Kleen personnel.

#### **3.2 INSPECTION PROCEDURES [40 CFR 270.14(b)(5)1**

The Service Center Manager (i.e., the Branch General Manager} or his designate is responsible for carrying out and documenting the facility inspection. The inspection will be conducted by an employee familiar with facility operations and inspection procedures. This may be the Branch General Manager, a Material Handler (warehouse person), Secretary, Sales Representative, or a Sales Manager. The inspector must make a record of the inspection in an inspection log or summary, note any repairs that are needed, and assure that they are completed. If he cannot carry out the repairs, he must notify the Safety-Kleen Technical Services Department and request assistance. Completion of repairs also must be noted on the Facility Inspection Record. Records of inspections will be kept for three years from the date of inspection. See Appendix E for an example inspection form.

The facility inspections include the following:

- a. Tank Inspections-At a minimum. the tanks holding product and spent materials are inspected each operating day, typically Monday through Friday. The inspections include checks of the high level alarm and of the volume held in each tank. Sudden deviations in the solvent volumes will be investigated and their causes determined. If necessary, repairs must be initiated immediately. The solvent waste must not exceed

95% of the volume at any time. The power to the high level alarm must be checked each operating day; it will sound when the tank's volume is 95% of capacity. All storage tanks at this facility are equipped with high level alarm systems.

The piping and secondary containment for the tanks must be checked for cracks or other deterioration. Insulated piping will be visually inspected for evidence of leaks. Any damage to tanks and piping (such as rust or loose fixtures) or secondary containment must be noted and repairs initiated.

The condition of the tank(fixed roof and closure devices)are checked yearly for (but not limited) visible cracks, holes or gaps in roof sections or between the roof and tank wall, cracked or damaged seals or gaskets on closure device, broken, warped, or missing hatches, access covers, caps, or other closure devices, gaps present between closure device and tank, vents obstructed, other defect.

- b. Solvent dispensing equipment - The solvent dispensing hose, connections, and valves must be inspected for damage (such as cracks or leaks and proper functioning) each operating day. The pumps, pipes, and fittings must also be checked for damage and proper functioning. Any damage to the solvent dispensing equipment must be noted and repaired.
- c. Container Storage Areas (CSA) - The container storage areas are inspected each operating day, typically Monday through Friday. The number and condition of the containers are noted. The total volume of the waste held in the CSAs will not exceed the permitted volume for the area. The contents of any leaking or suspect containers must be placed in a container of adequate integrity. The containers will be properly labeled and marked in accordance with U.S. DOT and Oklahoma DEQ hazardous waste regulations. The secondary containment system must be inspected for deterioration or failure. If cracks or leaks are detected, repairs will be initiated immediately.
- d. Drum washer/dumpster units - The wet dumpster units (in the return and fill station) must be inspected each operating day, typically Monday through Friday, for leaks and sediment buildup. Any leaks must be noted and repair must be initiated immediately. Excess sediment must be removed from the drum washer/dumpsters. The secondary containment must be checked for cracks and gaps. If cracks are detected, repairs will be initiated immediately.
- e. Safety Equipment - The fire extinguishers must be checked to ensure that the units are charged and accessible. The operation of the telephone intercom/paging system

and the eyewash units must be confirmed. The first aid kit and spill clean up equipment must be inspected for adequate content and accessibility. A list of emergency equipment is provided in Appendix F,

- f. **Security** - The operation of each gate and lock must be checked weekly. In addition, the fence must be inspected for deterioration weekly.
- g. **Air Emission Standards** -The facility does not operate process equipment for which the RCRA Subpart AA air emission standards apply. However, the facility utilizes several pumps, valves and other equipment for which Subpart BB standards do apply. This equipment will be subject to the leak detection and record-keeping requirements of Subpart BB. The facility conducts leak inspections, repair and recordkeeping requirements of Subpart BB. Each valve, flange and pump which is associated with the hazardous waste tank and its ancillary equipment must be marked in association with Subpart BB regulations. A piping schematic shows the location and the number assigned to each piece of the equipment. Compliance with the standard will be achieved through facility inspections. If required, leak detection monitoring and repair records are maintained. Records of equipment monitoring and repair are maintained in the operating record. If a potential leak is discovered (by visual inspection, audible indication, or excessive odor) it will be noted on the inspection form. Any leak detected will be repaired as soon as practicable, but at least within 15 days. The leaking piece of equipment must be tagged with the I.D. number, date of potential or actual leak, and the date of leak confirmation. The leak detection and repair record will be kept at the facility. See Appendix E for an example form.

Wastes managed at the Service Center have been determined to contain volatile organic compounds (VOCs) at concentrations greater than 500ppm by weight. Therefore, the storage tanks and containers used for the management of hazardous wastes at the service center are subject to Level 1 control requirements under Subpart CC. Visual inspections of containers and hazardous waste tanks will be completed as required by 40 CFR 264.1084. The initial inspection of the tanks was conducted when the tanks first became subject to the Subpart CC rule. No defects were found during the visual inspection. The facility complies with Level 1 controls for containers by meeting DOT regulations for packaging hazardous materials and equipping containers with covers in accordance with the requirements of 40 CFR **264.1084**.

### **3.3 FACILITY DESIGN [40 CFR 270.14(b)(8)]**

The Oklahoma City Service Center was designed to minimize the possibility of spills or fires, and to minimize the effects of any accident that may occur. Specifications for the storage facilities, and other equipment, are in Appendix E, and descriptions follow. The secondary containment calculations are in Appendix E (for the tank farm) and in Attachment 1 (for the container storage areas and Return/Fill Station).

#### **3.3.1 Tank Storage**

All tanks are constructed in accordance with Underwriters Laboratories Standard 142. The tanks are constructed of carbon steel and painted a light color to reflect sunlight. The tank interiors are not coated. The tanks are located more than 20 feet from the property line, in accordance with National Fire Protection buffer zone requirements. All tanks are equipped with an aural (audible) and visual (strobe light) high level alarm system.

The secondary containment (tank farm) consists of a monolithically poured slab and dike wall. The slab is 6" thick and the wall is 8" thick steel reinforced concrete. The concrete has been sealed with a protective coating to render it impermeable. The tanks' secondary containment calculations are shown in Appendix E.

The containment area is designed and operated to remove accumulated liquids through the use of a manually operated pumping system. Accumulated precipitation in the secondary containment system will be removed in a timely basis after detection. A visual inspection of the storm water for a sheen and discoloration will be conducted. If no sheen or discoloration is noted, the accumulated precipitation will be discharged from the tank farm to the surface of the facility. If a sheen is noted, the precipitation will be pumped into an onsite storage tank for offsite management. If a solvent spill occurs within the containment dike, the spilled material will be completely removed. If water is present should a spill occur, all of the liquid will be managed as hazardous waste.

The return and fill is located adjacent to the warehouse. The drum washer/dumpsters are hard-piped to the tank and all piping is aboveground. Secondary containment is provided by reinforced concrete slab and curbs.

### **3.3.2 Container Storage (40 CFR 264.173)**

The slab, curbing, and collection trenches for the container storage areas (CSA) in the warehouse are made of steel reinforced concrete. The concrete floor is sealed with a coating that is compatible with the waste being stored, to render it impervious so as to contain leaks and spills until the collected material is detected and removed. Steel grates cover the trenches to facilitate the movement of containers across them.

Adequate aisle space will be maintained between rows of waste. This will allow the unobstructed movement of personnel, fire protection equipment, or spill control equipment to any area of the facility during an emergency. The containers will be kept closed during storage except when wastes are being added to or removed from them. The containers must be handled and stored such that ruptures and leaks do not occur.

The metal shelter and its secondary containment are constructed of sheet steel and it is painted a light color to reflect sunlight. Overhead doors secure the shelter. Secondary containment in the form of a metal pan at the base of the building is used to contain potential leaks or spills. This container storage area is enclosed, thus preventing run-on from occurring. Spilled or leaked wastes will be removed by using absorbents. The resulting cleanup materials will be drummed and properly disposed of along with other containerized wastes.

## **3.4 PLANT OPERATIONS - POTENTIAL SPILL AND FIRE SOURCES, AND CONTROL PROCEDURES (40 CFR 264.31)**

Employees must perform their duties in the safest, most efficient manner possible. The facility is equipped to facilitate these activities. Whenever possible, containers will be moved using a handcart, and pallets are typically moved using a forklift or pallet jack. Upon arrival at the Service Center, containers of waste are either added to the spent solvent storage tanks or are placed in a container storage area. Open containers of solvent must not be left unattended. Containers holding hazardous waste will always be closed during storage except if necessary to add or remove wastes.

Below are descriptions of situations that can result in accidents and the precautions taken to prevent their occurrence:

### 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. Emptying of drummed solvent into the drum washer/dumpster at the return and fill station - As the containers are emptied into the drum washer, solvent can splash out of the drum washer. Employee training emphasizes the importance of taking care in emptying the drums. The return and fill station is underlain by coated concrete and will contain this type of spill. There is a blind sump in this floor for any splashed/spilled solvent to accumulate in. Any accumulated solvent will be pumped from this sump and into the drum washer for transfer to the waste storage tanks.
- b. Filling of drums with solvent product - A low pressure hose with an automatic shut-off valve, similar to those used at automotive service stations, is used to fill containers with clean solvent. Leaking fittings, a damaged hose, or carelessness could lead to the discharge of solvent outside of the container. Manual emergency shut-off valves are installed on each hose, should the equipment not function properly. Employee training emphasizes the importance of inspection, maintenance, and reporting of conditions with pollution incident potential.
- c. Moving of containers - When a container is moved, a potential exists for it to tip over. To minimize the potential for spillage of waste, all containers must be maintained in an upright position and remain tightly closed while in storage or in transit.
- d. Delivery truck transfers - The cargo should be secured in the route vehicle with straps or load locks before transport. Individual containers of waste can tip over or be dropped when being moved on or off a delivery truck. Appropriate material handling equipment will be used as necessary. If a spill does occur, the amount of material in the containers is a quantity that can be collected with absorbents. Any contaminated soil that results will be removed and transported to an approved 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) pollution incident:

- a. Overfilling of storage tanks - Storage tanks can be overfilled with a resulting discharge of materials. The high level alarm is tested weekly for proper functioning of electrical and mechanical components. Further, the tank volume is checked daily before pumping materials into the tank. This will prevent overfilling of the storage tanks.
- b. Leaking pipelines - The pipelines and other equipment present a potential for leaks and resultant pollution. Regular inspection of this equipment and the solvent inventory will detect any leaks.

### 3A.3 Potential Fire Sources (40 CFR 264.176)

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

- a. All waste and products are kept away from ignitable sources - Personnel must confine smoking and open flames to remote areas, separate from any flammable materials. The solvent handling area and the aboveground storage tanks are separated from the warehouse area to minimize the potential for a fire to spread or injury to personnel. All electrical wiring, switches, and fixtures meet applicable fire safety and electrical construction codes.
- 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 spent parts cleaner solvent is stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources, or sources that are subject to violent reactions. The tanks are vented and the containers are kept at ambient temperature to minimize the potential for pressure buildup.
  2. Produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health - The vapor pressure of parts cleaner solvent is low, 0.2 mm

Hg at 68°F, and it is reactive with reactive metals and strong oxidizers only. Toxic mists, fumes, dusts, or gases will not form in quantities to threaten human health since strong oxidizers are rarely handled at this facility and if so, *they* are only stored for 10 days or less. Solvent vaporization will be 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 the structural integrity of the Safety-Kleen facility - The parts cleaner solvent will not cause deterioration of the tank, drums 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 facility operation in an emergency.
- d. "No Smoking" signs are posted in areas where ignitable materials are handled or stored.
- e. Fire extinguishers must be checked once per month by facility personnel to ensure proper charges, and once per year by a fire extinguisher company.

### **3A.4 Tank Evaluation and Repair Plan**

· The waste material stored in the tank at this facility is parts cleaner solvent, which is compatible with the carbon steel structure. In fact, the parts cleaner solvent is often used as a light hydrocarbon coating to prevent rusting of metal parts. The tanks will be checked for corrosion, leaks, or any damage that might affect the integrity of the storage tanks. If significant corrosion is noted, the tank will be removed or repaired. If the corrosion is significant and localized, the tank will be taken out of service immediately and repaired (e.g., a patch welded over the corroded area).

#### **3.4.5 External Factors [40 CFR 270.14(b)(8)]**

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump

switches are located inside the warehouse of the Service Center. The container storage areas are in the warehouse and the metal shelter area which are inaccessible to unauthorized personnel.

Vandalism - Only extreme vandalism would result in a solvent spill or fire.

Responses to spills and fires are described in the Contingency Plan.

Strikes - An employee strike would not result in a solvent spill or fire. Operations will cease if a strike occurs.

Power failure - A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.

Flooding - The site elevation is above the projected 100-year flood plain, therefore a 100-year flood will not affect the facility.

Storms or Cold Weather - Storms and cold weather will have no foreseen effect on the facility.

### **3.5 INTERNAL AND EXTERNAL COMMUNICATIONS AND ALARM SYSTEMS (40 CFR 264.34)**

Internal communication within the facility is accomplished by voice or the available intercom paging system. Telephones will be used to report a spill or fire, and to summon assistance from *local* and state emergency response agencies. Emergency response telephone numbers are posted by each facility telephone. Included in these phone numbers is the 24-Hour Safety-Kleen emergency response coordinator.

### DIKE VOLUME CALCULATION

### FORMULAE USED:

$\pi r^2 H \times 7.48 \text{ GAL.}'S \backslash \text{CU. FT.}' = \text{TANK DISPLACEMENT VOLUME (GAL.}'S \backslash \text{CU. FT.}'$

(LWH) (7.48 GAL./CU. FT.) = DIKE VOLUME (GAL.)

R(TANK RADIUS) = 6.0 FT. (6'0")

L(DIKE LENGTH) = 52.0 FT. (52'-0" I.D.)

W(DIKE WIDTH) = 21.0 FT. (21'-0" I.D.)

H(DIKE HEIGHT) = 4.0 FT. (4'0"

<52.0 FT,>21.0 FT,>4.0 FT,>7.48 GAL,\CU,FT,>

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**VOLUME OF LARGEST TANK WITHIN DIKED AREA**

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**TANK DISPLACEMENT VOLUME**

$$\pi (60 \text{ FT})^2 (40 \text{ FT}) (7.48 \text{ GAL/CF}) = 3,384 \text{ GAL} \times 2 \text{ TANKS}$$

SAFETY FACTOR : (10% OF LARGEST VOLUME TANK) = 16,800 GAL (10)

**25yr/24 hr RAINFALL EVENT (\$6.6)**

(52.0FT)(21.0 FT)(6.69") (7.48 GAL./CU. FT.)

**TOTAL (EXCESS)**

= 32.672 GAL (+)

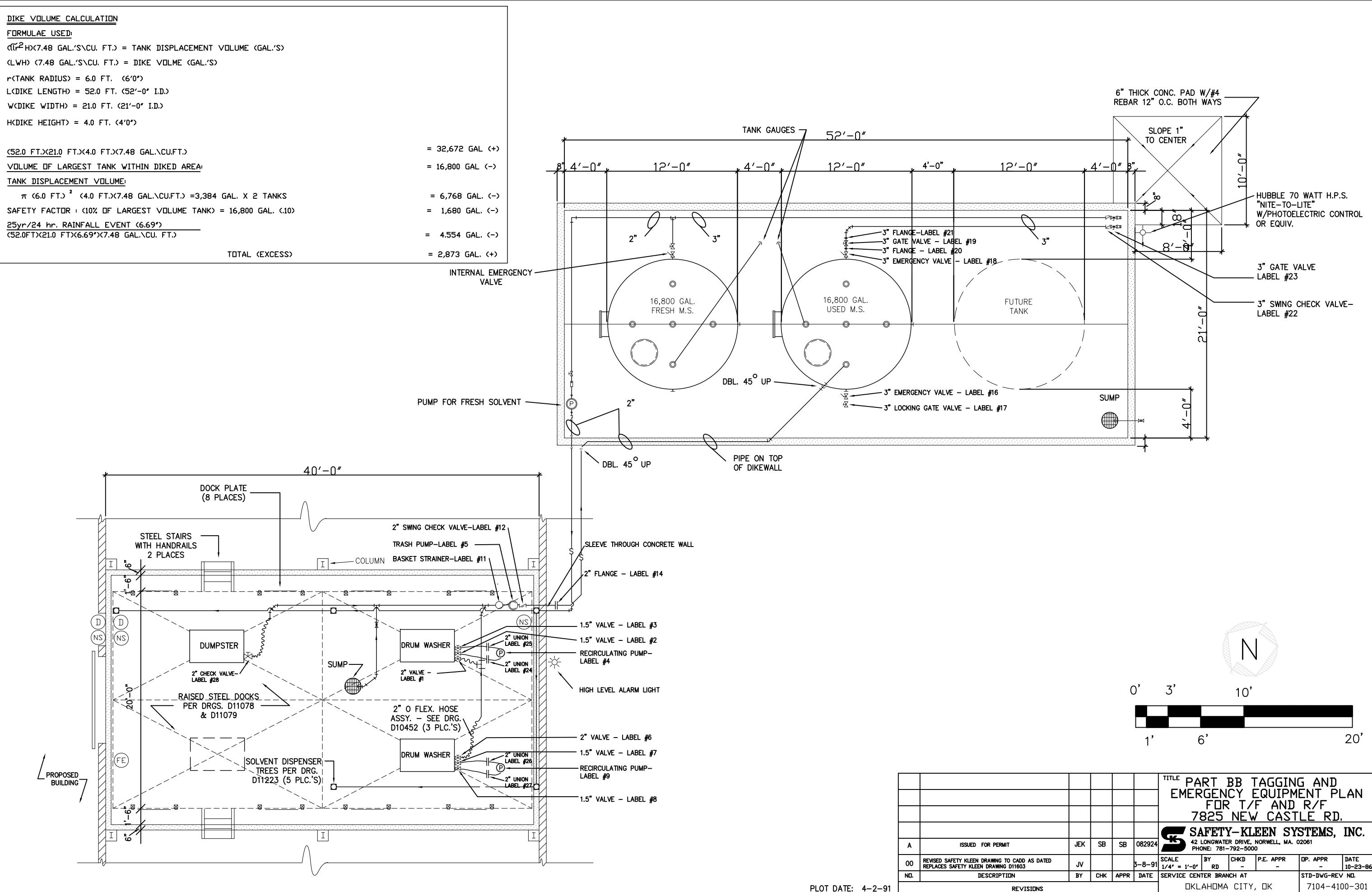
- 16,000 CAL. 6 X

= 6,768 GAL. ←

= 1,680 GAL. (-)

$$= 4.554 \text{ GAL. } (-$$

— £,875 GHL. (1)



**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 4**

**CONTINGENCY PLAN**

## CONTINGENCY PLAN QUICK REFERENCE GUIDE

Safety-Kleen Systems, Inc.

7528 Newcastle Road

Oklahoma City, OK 73169

Revised: 09/13/2024

### **Facility Contacts:**

Primary Emergency Coordinator: Kevin Stancil

Secondary Emergency Coordinator: Bruce Sharpton

Mobile Number (24/7): 405-208-3086

Mobile Number (24/7): 405-761-3467

**Note:** The facility typically operates M-F from approximately 7am – 6pm.

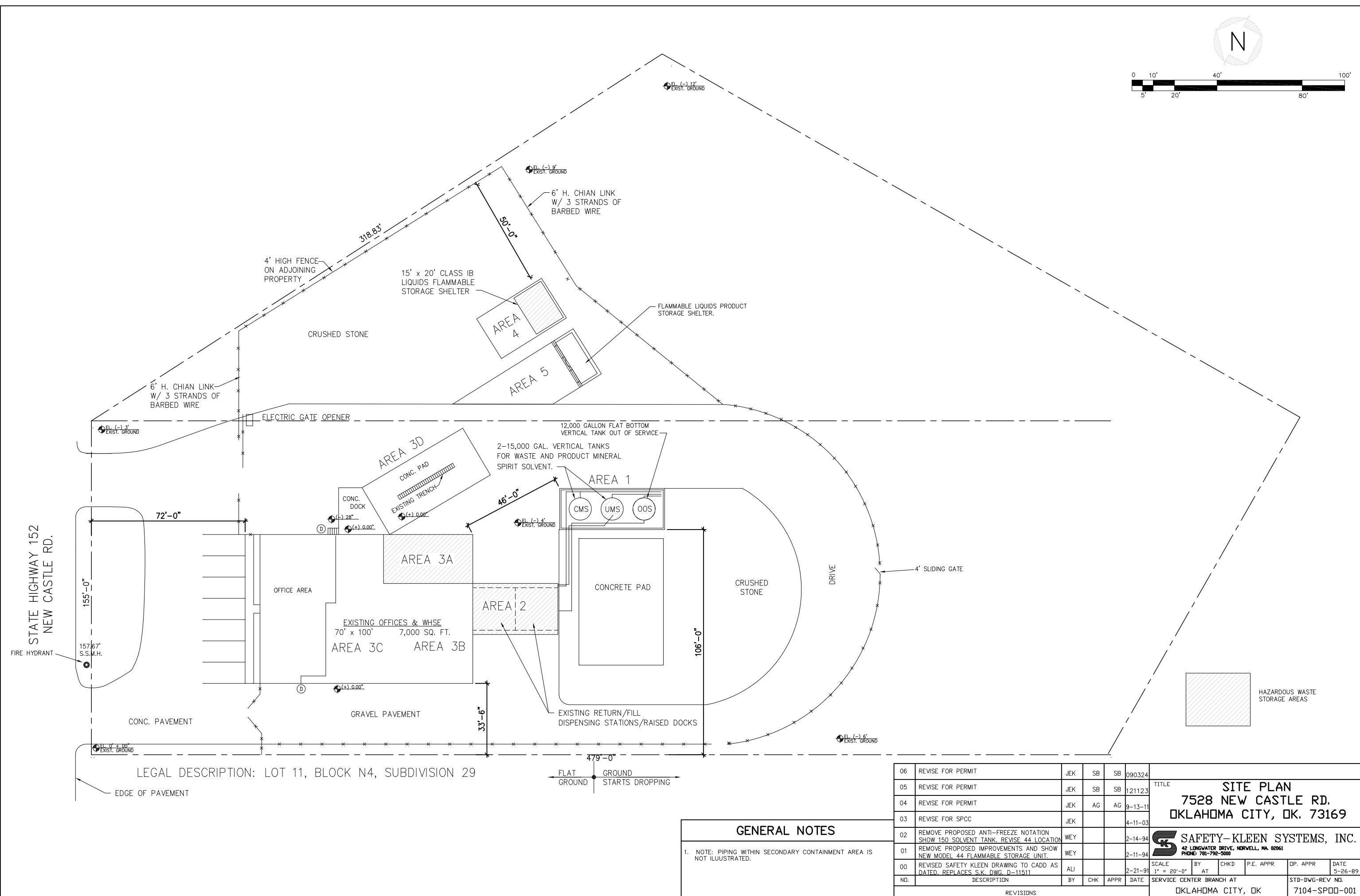
### **Hazardous Waste Information:**

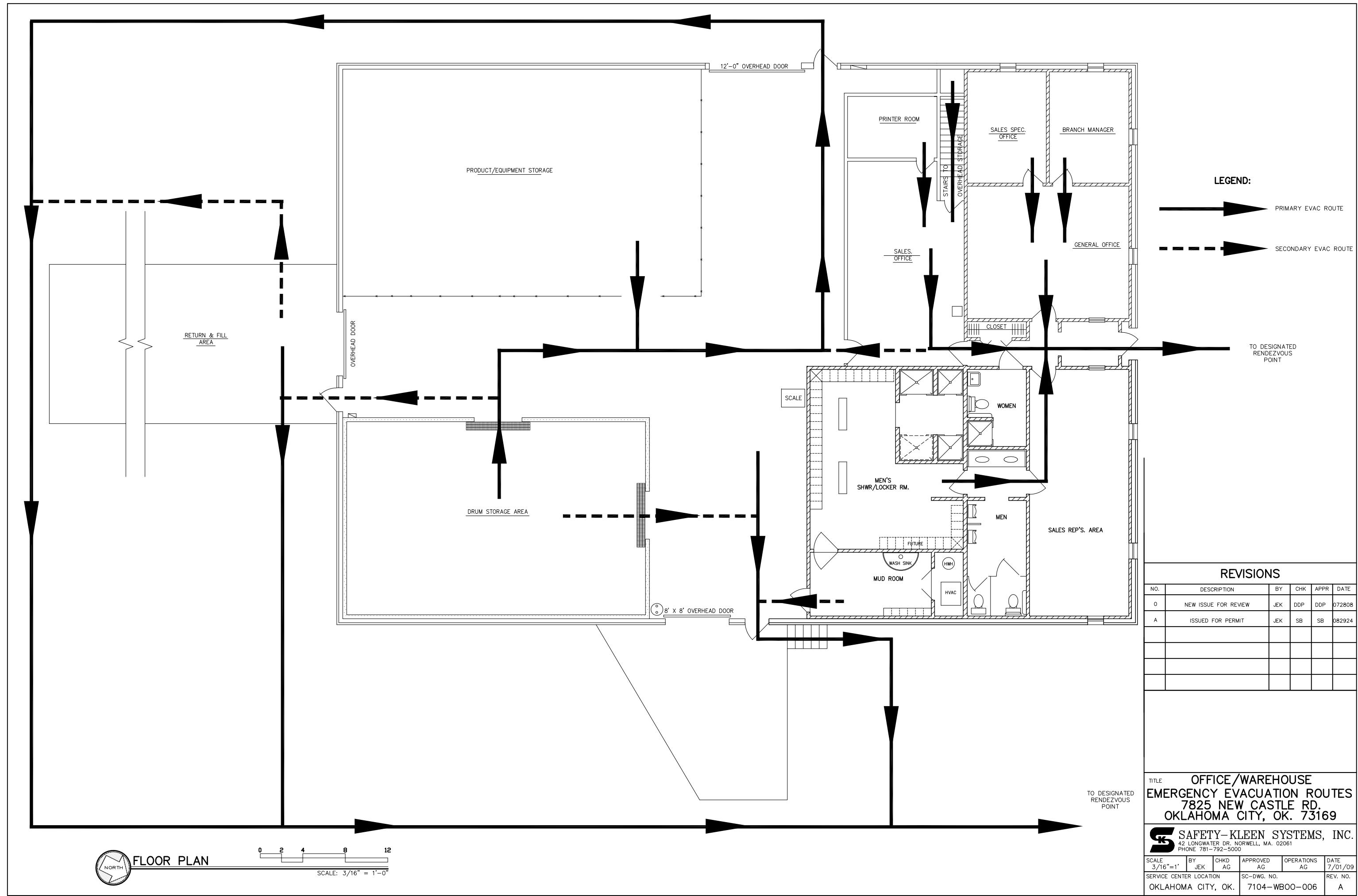
Name of Waste	Waste Codes	Location Accumulated	Maximum Amounts Present	Special Response Notes	Special Notes to Hospital/Treatment personnel
Parts Washer Solvent	D001, D018, D039, D040	Tank Farm - Tank #2 Return and Fill Area	16,800 gallons 600 gallons	Fire: Use regular dry-chemical, foam, water spray, and water fog. Combustible liquid and vapor. The vapor is heavier than air. Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and other organic compounds. Wear full protective firefighting gear including SCBA. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Spills: Use foam on spills to minimize vapors. Keep out of water supplies and sewers. Absorb with earth, sand or other noncombustible material and transfer to container. Use non-sparking tools. Large spills: Reduce vapors with water spray. Dike for later disposal.	Acute: May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Delayed: May cause damage to central nervous system. Special treatment Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.
Parts Washer Solvent Sludge	D001, D018, D039, D040	Return and Fill Area Warehouse Container Storage Area	110 gallons 220 gallons	Same as Parts Washer Solvent - See above	Same as Parts Washer Solvent - See above

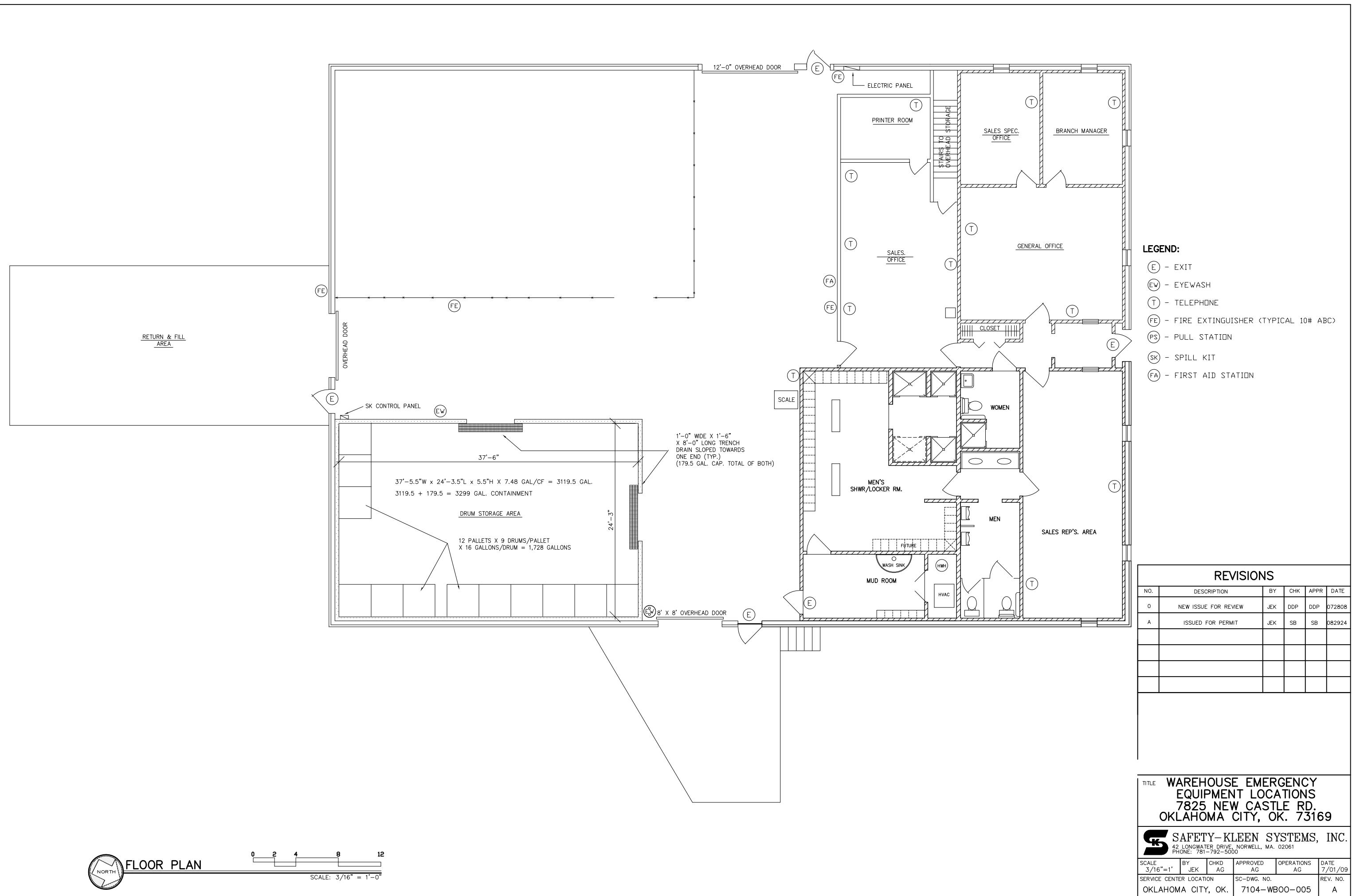
Name of Waste	Waste Codes	Location Accumulated	Maximum Amounts Present	Special Response Notes	Special Notes to Hospital/Treatment personnel
Aqueous Parts Washer/Brake Cleaner Solution	Typically, non-regulated but at times waste code D039 may apply.	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire extinguisher media should be based on surrounding materials. Negligible fire hazard. Burning may produce oxides of carbon. Use water spray to keep fire-exposed materials cool.	Acute: May cause skin irritation. May cause eye irritation. May cause respiratory irritation.  Delayed: Repeated exposure may cause skin dryness or cracking. Treat symptomatically and supportively.
Paint Related Waste	D001, D018, D035, D039, D040, F003, F005	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire: Use Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies. Spills: Contain spill away from surface water and sewers. Sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal.	If contact occurs, remove contaminated clothing and wash before reuse. If contact with skin, flush with soap and water. If contact with eyes, flush with water. Get medical attention if irritation develops. If inhaled, move to fresh air. Treat symptomatically and supportively. Call 1-800-468-1760 for additional information.
Immersion Cleaner	D039, D040	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire: Use Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog. Combustible liquid. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Heated containers may rupture or be thrown into the air. Decomposition and combustion materials may be toxic. Burning may produce nitrogen oxides, acid halides, carbon monoxide, and unidentified organic compounds. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fires, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Stay upwind and keep out of low areas. Dike for later disposal. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies. Spills: Contain spill away from surface water and sewers. Sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal.	Acute: Fatal if inhaled, eye, skin, liver, nervous and respiratory system, spleen, and testes damage, blood system disorders, respiratory tract irritation, skin and respiratory sensitizer, aspiration hazard.  Delayed: Cancer, reproductive effects, skin and respiratory sensitizer.  Special treatment: Treat symptomatically and supportively. Call 1-800-468-1760 for additional information.

Name of Waste	Waste Codes	Location Accumulated	Maximum Amounts Present	Special Response Notes	Special Notes to Hospital/Treatment personnel
Dry Cleaning Waste	D007, D039, D040, F002	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire: Product itself does not burn, but may decompose upon heating to produce phosgene, halogenated compounds, hydrogen chloride gas, carbon monoxide, and unidentified organic compounds. A positive-pressure, SCBA and full-body protective equipment are required for fire emergencies. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Vapors will spread along the ground and collect in low or confined areas. Spills: Sorb with compatible sorbent material shovel into a sealable container for disposal.	Acute: Causes skin irritation, eye irritation, central nervous system damage, liver damage, and respiratory system damage. May cause central nervous system depression.  Delayed: Causes liver damage, nervous system damage, and respiratory system damage. May cause mutagenic effects, cancer, reproductive effects, and kidney damage.  Special Treatment: Treat symptomatically and supportively. Do not administer Adrenaline (epinephrine) or similar drugs following product overexposure. Increased sensitivity of the heart to such drugs may be caused by overexposure to product. Administration of gastric lavage and/or activated charcoal slurry may be considered. Treatment may vary with the condition of the victim and specifics of incident. Call 1-800-468-1760 for additional information.
Facility Generated Contaminated Debris	D001 D004 D005 D006 D007 D008 D009 D010 D011 D018 D019 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043 F002 F003 F005	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire: Use Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies. Spills: Contain spill away from surface water and sewers. Sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal.	If contact occurs, remove contaminated clothing and wash before reuse. If contact with skin, flush with soap and water. If contact with eyes, flush with water. Get medical attention if irritation develops. If inhaled, move to fresh air. Treat symptomatically and supportively. Call 1-800-468-1760 for additional information.
Various Other Hazardous Wastes Received from Offsite Generators	Waste received from off-site generators and managed as Transfer Waste so waste codes will vary. Potential codes may apply as listed in note <sup>1</sup> below.	Warehouse Container Storage Area  Flammable Shed	1,728 gallons  2,184 gallons	Fire: Use Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies. Spills: Contain spill away from surface water and sewers. Sorb with compatible sorbent material and shovel with a clean, spark proof tool into a sealable container for disposal.	If contact occurs, remove contaminated clothing and wash before reuse. If contact with skin, flush with soap and water. If contact with eyes, flush with water. Get medical attention if irritation develops. If inhaled, move to fresh air. Treat symptomatically and supportively. Call 1-800-468-1760 for additional information.

<sup>1</sup>NOTE: Any of the following waste codes may be applicable: D001 - D043, F001 - F039, K001 - K178, P001 - P205, U001- U411







**CONTINGENCY PLAN****ABSTRACT**

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

**RESPONSIBILITIES:** The emergency coordinator or alternate is responsible for implementing the plan during an emergency.

**EMERGENCY COORDINATOR:** The emergency coordinator and alternate emergency coordinator are designated Safety-Kleen employees who have been trained for these positions.

**EMERGENCY NOTIFICATIONS:**

Oklahoma City Police Department	911
Oklahoma City Fire Department	911
Integris Health Baptist Medical Center	911 or 405-949-3011
Safety-Kleen 24-Hr Emergency Response	800-468-1760
Oklahoma Department of Environmental Quality	800-522-0206
National Response Center	800-424-8802

## **4.0 CONTINGENCY PLAN (40 CFR 264 SUBPART D)**

**Safety-Kleen Systems  
7528 Newcastle Road  
Oklahoma City, OK 73169**

### **4.1 PURPOSE (40 CFR 264.51)**

The Contingency Plan describes the actions to be taken by employees in the event of a spill, fire, 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 waste 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 (40 CFR 264.55)**

The emergency coordinator, or alternate emergency coordinator, 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 emergency coordinator be unavailable.

The emergency coordinator and the alternate emergency coordinator must be familiar with all aspects of this Contingency Plan, the operations and activities at the facility, the location and characteristics of materials handled, the location of all records within the facility and the facility layout. In addition, these coordinators have the authority to commit the resources necessary to carry out the Contingency Plan. The emergency coordinator and alternate emergency coordinator's home addresses and telephone numbers, as well as the office telephone number are listed in Appendix F. Also listed in Appendix F, are typical functions of each employee during an emergency. At least one employee will be at the facility, or on call, to respond to an emergency situation at all times.

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

Whenever there is an imminent or actual emergency, the emergency coordinator (or the alternate when the emergency coordinator is not available) will:

- a. Activate the internal facility communication system to notify all facility personnel;
- b. Immediately notify Safety-Kleen's Emergency Response Coordinator using the 24-hour telephone number (currently 800/468-1760), which is the Safety-Kleen Incident Notification System;
- c. Notify appropriate state or local agencies with designated response roles if necessary; and,

Whenever there is a release, fire, or explosion, the emergency coordinator or alternate must immediately try to identify the character, exact source, amount, and extent of any contamination. Because of the limited number of materials being handled at the facility, he or she may do this by observation or, by review of facility records. If necessary, outside laboratories may be contacted to perform chemical analysis.

Concurrently, the emergency coordinator or alternate 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).

During an emergency, the emergency coordinator or alternate must take all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous material 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 environment has been contaminated or there is a potential for contamination as a result of a fire, explosion, or spill, the emergency coordinator or alternate emergency coordinator must contact the state agency and Safety-Kleen Emergency Response Coordinators to report the incident.

The treatment, storage, and/or disposal of the recovered waste, contaminated soil or surface water that results must be arranged by Safety-Kleen and carried out as expeditiously as possible.

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

- 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 the Contingency Plan is cleaned and fit for its intended use before operations are resumed.

#### **4.2.3 Reporting Responsibilities (40 CFR 264.56)**

If the emergency coordinator or alternate determines that the facility 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 local authorities (i.e. fire and police).
- b. The coordinator must immediately notify the Safety-Kleen Emergency Response Coordinators, Oklahoma Department of Environmental Quality and the National Response Center if necessary. This notification shall include the following:
  - (1) Name and telephone number of notifier;
  - (2) Name and address of facility;
  - (3) Time and type of incident (e.g., release, fire);
  - (4) Name and quantity of material(s) involved, if known
  - (5) Extent of injuries, if any; and,
  - (6) Possible hazards to human health, or the environment outside the facility

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

The emergency coordinator must document the time, date and details of an incident that requires the implementation of the contingency plan. Within 15 days of the incident, Safety-Kleen will submit a written report to Oklahoma DEQ. The report must include:

- a. Name, address and telephone number of the owner or operator;
- b. Name, address and telephone number of the facility;
- c. Date, time and type of incident (e.g. fire, explosion, spill)
- 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;
- g. Estimated quantity and disposition of recovered material that results from the incident

#### **4.2.4 Chain of Command**

Based on the emergency response procedures described above, the chain of command during an emergency is as follows:

- a. The person who discovers/causes the spill reports to the emergency coordinator or alternate emergency coordinator;
- b. The emergency coordinator or alternate emergency coordinator contacts the Safety-Kleen Emergency Response Coordinators and.
- c. Safety-Kleen's Emergency Response Coordinators, will contact an emergency response contractor, if required.

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

During an emergency, the following government agencies and local authorities may be contacted:

<u>Agency or Authority</u>	<u>Rationale</u>
Police Department	Notify if there is imminent danger to human health or need for evacuation
Fire Department	Notify if there is a fire, uncontrolled spill or other imminent danger
Hospital	Notify if there are any injuries
Oklahoma DEQ	Report releases and fires
National Response Center	Report releases

SK-Emergency Response  
Contractor

Call to assist with remedial action after a release

Arrangements have been made to familiarize the police department, fire department, and local emergency response teams with the layout of the facility, properties of hazardous materials handled and associated hazards, locations where facility personnel normally work, entrances to and roads inside the facility, and possible evacuation routes. Arrangements have been made to familiarize the local hospital with the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

#### **4.3 EMERGENCY RESPONSE PROCEDURES (40 CFR 264.56)**

Response actions to be taken in specific emergency situations are described in the sections which follow.

##### **4.3.1 Minor Spills**

If a spill should occur while pouring spent solvent into a drum washer/dumpster or filling containers with solvent product at the return and fill station, and it is 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 absorbent material. The sorbents will be collected, drummed, and transported to a licensed hazardous waste management facility for proper processing. Should water be present when a spill occurs, all of the liquid will be treated as hazardous waste, unless otherwise determined, and pumped into the spent solvent storage tank. The secondary containment of the container storage area is emptied using a wet/dry vacuum, pump, or absorbent materials. Detergent can be used as needed. All material collected from spill cleanups will be treated as hazardous waste.
- b. If the solvent spills on an unpaved area, the free solvent must be collected with absorbent material. The absorbent material and any contaminated soil will be

collected, containerized and transported to a licensed hazardous management facility for proper processing.

If a spill occurs while moving or delivering containers outside of the warehouse, the response actions described above must be followed. Spills inside the warehouse or metal shelter will be prevented from contaminating the environment by the concrete floor and the secondary containment. In the event of a spill indoors, the doors should be opened to improve the ventilation in the confined area (if safe to do so). If ignitable materials are spilled in a non-explosion proof rated area or is flowing into such, insure that sources of ignition (e.g. thermostats or light switches) are left in the same position as at the time of the spill to prevent accidental sparking. Following instructions of the appropriate Material Safety Data Sheet, the worker will enter the area wearing the required personal protective equipment (e.g., gloves, aprons, safety glasses, and respirator), collect the liquid, containerize it and move it to storage.

Cleanups are completed only when the workers have cleaned themselves and the emergency equipment with soap and water.

#### **4.3.2. Major Spills**

Any spill that can not be completely remediated using the methods described in Section 4.3.1 is a major spill. A major spill is usually the result of a vehicular accident, tank overfilling, equipment failure, or a fire. Spilled material that escapes collection can contaminate soil, surface water, 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 materials, if possible;
- c. Retain, contain, or slow the flow of the material if it cannot be stopped;
- d. If material escapes containment efforts, immediately call the local fire department, and report to the emergency coordinator or alternate emergency coordinator and Safety-Kleen's Emergency Response Coordinators.
- e. Immediately recover, to the extent possible, the spilled materials to reduce property and environmental damage. Start recovery operations immediately.

The emergency coordinator or alternate emergency coordinator shall report any

Incident, as soon as possible, to Safety-Kleen's Emergency Response Coordinators using the 24-hour telephone number. As determined by Safety-Kleen's Emergency Response Coordinators an emergency cleanup response contractor will be called. If it is deemed necessary, calls will be made to the National Response Center and Oklahoma DEQ.

The person reporting a spill should be prepared to give his/her name, position, company name, address, and telephone number. The person reporting should also describe the material spilled and if possible, some estimate of the amount, and the contaminant status, and specify any equipment needed.

Spills must be controlled and remediated to the fullest extent possible by Safety-Kleen personnel, even when assistance is required to totally remediate the situation. Safety-Kleen personnel must not take health or safety risks; if there is doubt as to whether a particular action is unsafe, it must be avoided. The source of a release must be stopped by turning off the 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 absorbent material around the free liquid to hold it in one place or at least direct it to an area where it will do the least amount of damage (e.g. secondary containment areas).

The free liquid can be collected from the ground or affected surface water using absorbents or UL listed pumps. The liquids must be containerized or added to the waste storage tanks - if solvent waste.

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

If a small fire occurs, Safety-Kleen personnel must act quickly to put out the fire before it spreads to other parts of the facility, if possible to do so without undue threat to personal safety. If it cannot be extinguished with one fire extinguisher immediately, evacuate the facility and call the fire department.

It is Safety-Kleen's policy that personnel only respond to incipient fires; that is, those that can immediately be extinguished using one fire extinguisher. Any fire that cannot be brought under control immediately, or which has the potential to become uncontrollable warrants implementation of the evacuation plan.

Vapors of parts cleaner solvent exposed to a spark or open flame may flash at temperatures over 105°F. A parts washer solvent 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. Attention should then be directed immediately to extinguishing the flame.

Dry cleaning wastes are not flammable, but can produce phosgene gas and hydrochloric acid at very high temperatures (approximately 1200°F). The potential for the materials reaching a decomposition state is minimal, however, Safety-Kleen personnel and local authorities must be aware of the proper response should a fire affect the container storage area. Emergency response should be as follows:

- a. Isolate the hazard area and deny entry to unauthorized personnel;
- b. Stay upwind, keep out of low areas;
- c. Ventilate closed spaces before entering them;
- d. Wear positive pressure breathing apparatus and protective clothing;
- e. Evacuate a 600-foot radius endangered by the gas.

A fire in the container storage areas can best be extinguished by foam, water fog, or water spray. Parts cleaner solvent and immersion cleaner can generate carbon monoxide and other poisonous gases when exposed to heat. Therefore, it is important to wear positive pressure breathing apparatus and full protective clothing in the affected area. If a fire in or near the areas where these wastes are stored occurs:

- a. Isolate the area and deny entry to unauthorized personnel;
- b. Stay upwind, keep out of low areas;
- c. Wear protective clothing and self-contained breathing apparatus.

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

Explosions, structural damage or other hazardous conditions may result from the spread of the fire, therefore, the site must not be re-entered until the fire department has determined that it is safe to do so.

#### **4.4 EVACUATION PLAN**

Clearly marked exits are in the warehouses and office areas. Employees are trained to recognize all potential exit routes. The site evacuation plan is shown in Appendix F. When an uncontrolled fire or release has occurred, all personnel are to be evacuated from the area and assembled at the end of the northeast driveway 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 building or from a neighboring facility

#### **4.5 ARRANGEMENTS WITH EMERGENCY RESPONSE CONTRACTORS (40 CFR 264.37)**

A list of current, potential emergency response contractors is maintained by Safety-Kleen's Emergency Response Coordinators. These contractors 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 in an agreement or cannot comply with the procedures outlined within the plan. The agencies are invited to visit the facility to become more familiar with the site and the general location of hazardous material storage.

#### **4.6 IMPLEMENTATION SCHEDULE (40 CFR 264.51)**

Any discrepancies or deficiencies found during a routine inspection must be corrected expeditiously to insure 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 must be taken immediately. The Branch General Manager has the overall responsibility for correcting any discrepancies found during the routine inspection, and will consult with the corporate environmental and engineering staffs to design an implementation schedule for remedial action.

#### **4.7 AVAILABILITY AND REVISION OF THE CONTINGENCY PLAN (40 CFR 264.53 & 54)**

This plan, and all revisions to the plan, are kept at the facility and are regularly updated throughout the operating life of the facility. This plan and all revisions to the plan are made readily

available to employees working at the facility. The plan will be reviewed and updated, if necessary, whenever:

- a. The facility operations are revised to allow new wastes to be stored or treated, or applicable regulations are revised;
- b. The list or location of emergency equipment changes;
- c. The facility changes in its design, construction, operation and maintenance, or other circumstances in a way that:
  - (1) Increases the potential for fires, explosions, or releases of hazardous constituents, or
  - (2) Change the response necessary in an emergency;
- d. The names, addresses, or phone numbers of emergency coordinators change;
- e. The employee assigned to each emergency task changes; or
- f. The plan fails when implemented in an emergency.

## **EMERGENCY INFORMATION**

## **EMERGENCY INFORMATION**

SAFETY-KLEEN SYSTEMS, INC  
7528 NEWCASTLE ROAD  
OKLAHOMA CITY, OK 73169  
(405) 518-4133

### **Facility Emergency Coordinator:**

Kevin Stancil	2104 Whispering Creek Drive	(405) 208-3086 (Work Cell)
Branch General Manager	Edmond, Ok 73013	(405) 420-4694 (Home Cell)

### **Facility Alternate Coordinator:**

Bruce Sharpton	1004 SW 98 <sup>th</sup>	(405) 761-3467 (Work Cell)
Customer Service Manager	Oklahoma City, OK 73139	(405) 308-1700 (Home Cell)

### **Emergency Notification Phone Numbers:**

**Internal:** Safety-Kleen Emergency Response Coordinators  
24-Hour Spill Reporting Number  
(800) 468-1760

**External:** National Response Center  
24- Hour Emergency Number  
(800) 424-8802

### **Emergency Agencies to be Notified:**

Oklahoma City Police Department	(405) 397-1000 or 911
Oklahoma City Fire Department	(405) 297-3314 or 911
Integris Health Baptist Medical Center	(405) 949-3011 or 911
Oklahoma Department of Environmental Quality	(800) 522-0206

## **EXAMPLE LETTERS TO LOCAL AUTHORITIES**



September 13, 2024

Oklahoma City Police Department  
Attn: Police Chief  
700 Colcord Drive  
Oklahoma City, OK 73102

**Subject: RCRA Contingency Plan Distribution**  
**Safety-Kleen Systems, Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Police Chief:

The Safety-Kleen facility referenced above has updated the facility Contingency Plan and it is being submitted for your review so that you may familiarize yourselves with the facility layout, properties of hazardous waste handled at the facility, places where personnel would normally be working, entrances to roads inside the facility, possible evacuation routes, and the types of injuries/illnesses which could result from fires, explosions, or releases at the facility.

To fulfill our requirements under 40 CFR 262.256, Safety-Kleen would greatly appreciate the return of the form below acknowledging that the plan has been received by your department. This form may be returned via regular mail or e-mailed to [devore.emilly@safety-kleen.com](mailto:devore.emilly@safety-kleen.com). If you have any questions or require any additional information, feel free to email me or contact me at (417) 324-8838.

Sincerely,

*Emilly DeVore*

Emilly DeVore  
Sr. Environmental Compliance Manager  
Safety-Kleen Systems, Inc.

Oklahoma City Police Department  
Police Chief  
700 Colcord Drive  
Oklahoma City, OK 73102

Safety-Kleen Systems Inc.  
Attn: Emilly DeVore  
7528 Newcastle Road  
Oklahoma City, OK 73169

**Subject: RCRA Contingency Plan Agreement**  
**Safety-Kleen Systems Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Ms. DeVore:

This is to acknowledge the department's receipt of the Contingency Plan for Safety-Kleen, and the department agrees to act in accordance with its capabilities should an emergency occur and be called upon to respond.

---

Name

---

Signature

---

Title

---

Date



September 13, 2024

Oklahoma City Fire Department  
Attn: Fire Chief  
Fire Station # 20  
7929 SW 29th Street  
Oklahoma City, OK 73179

**Subject: RCRA Contingency Plan Distribution**  
**Safety-Kleen Systems, Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Police Chief:

The Safety-Kleen facility referenced above has updated the facility Contingency Plan and it is being submitted for your review so that you may familiarize yourselves with the facility layout, properties of hazardous waste handled at the facility, places where personnel would normally be working, entrances to roads inside the facility, possible evacuation routes, and the types of injuries/illnesses which could result from fires, explosions, or releases at the facility.

To fulfill our requirements under 40 CFR 262.256, Safety-Kleen would greatly appreciate the return of the form below acknowledging that the plan has been received by your department. This form may be returned via regular mail or e-mailed to [devore.emilly@safety-kleen.com](mailto:devore.emilly@safety-kleen.com). If you have any questions or require any additional information, feel free to email me or contact me at (417) 324-8838.

Sincerely,

Emilly DeVore  
Sr. Environmental Compliance Manager  
Safety-Kleen Systems, Inc.

Oklahoma City Fire Department  
Attn: Fire Chief  
Fire Station # 20  
7929 SW 29th Street  
Oklahoma City, OK 73179

Safety-Kleen Systems Inc.  
Attn: Emilly DeVore  
7528 Newcastle Road  
Oklahoma City, OK 73169

**Subject: RCRA Contingency Plan Agreement**  
**Safety-Kleen Systems Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Ms. DeVore:

This is to acknowledge the department's receipt of the Contingency Plan for Safety-Kleen, and the department agrees to act in accordance with its capabilities should an emergency occur and be called upon to respond.

---

Name

---

Signature

---

Title

---

Date



September 13, 2024

Integris Health Baptist Medical Center  
Attn: Hospital Administrator  
3300 Northwest Expressway  
Oklahoma City, OK 73112

**Subject: RCRA Contingency Plan Distribution**  
**Safety-Kleen Systems, Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Police Chief:

The Safety-Kleen facility referenced above has updated the facility Contingency Plan and it is being submitted for your review so that you may familiarize yourselves with the facility layout, properties of hazardous waste handled at the facility, places where personnel would normally be working, entrances to roads inside the facility, possible evacuation routes, and the types of injuries/illnesses which could result from fires, explosions, or releases at the facility.

To fulfill our requirements under 40 CFR 262.256, Safety-Kleen would greatly appreciate the return of the form below acknowledging that the plan has been received by your medical facility. This form may be returned via regular mail or e-mailed to [devore.emilly@safety-kleen.com](mailto:devore.emilly@safety-kleen.com). If you have any questions or require any additional information, feel free to email me or contact me at (417) 324-8838.

Sincerely,

*Emilly DeVore*

Emilly DeVore  
Sr. Environmental Compliance Manager  
Safety-Kleen Systems, Inc.

Integris Health Baptist Medical Center  
Attn: Hospital Administrator  
3300 Northwest Expressway  
Oklahoma City, OK 73112

Safety-Kleen Systems Inc.  
Attn: Emilly DeVore  
7528 Newcastle Road  
Oklahoma City, OK 73169

**Subject: RCRA Contingency Plan Agreement**  
**Safety-Kleen Systems Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Ms. DeVore:

This is to acknowledge the hospital's receipt of the Contingency Plan for Safety-Kleen, and the department agrees to act in accordance with its capabilities should an emergency occur and be called upon to respond.

---

Name

---

Signature

---

Title

---

Date



September 13, 2024

Oklahoma County Local Emergency Planning Committee  
320 Rober S. Kerr, Suite 101  
Oklahoma City, OK 73102

**Subject: RCRA Contingency Plan Distribution**  
**Safety-Kleen Systems, Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear LEPC Officers:

The Safety-Kleen facility referenced above has updated the facility Contingency Plan and it is being submitted for your review so that you may familiarize yourselves with the facility layout, properties of hazardous waste handled at the facility, places where personnel would normally be working, entrances to roads inside the facility, possible evacuation routes, and the types of injuries/illnesses which could result from fires, explosions, or releases at the facility.

To fulfill our requirements under 40 CFR 262.256, Safety-Kleen would greatly appreciate the return of the form below acknowledging that the plan has been received by your committee. This form may be returned via regular mail or e-mailed to [devore.emilly@safety-kleen.com](mailto:devore.emilly@safety-kleen.com). If you have any questions or require any additional information, feel free to email me or contact me at (417) 324-8838.

Sincerely,

*Emilly DeVore*

Emilly DeVore  
Sr. Environmental Compliance Manager  
Safety-Kleen Systems, Inc.

Oklahoma County Local Emergency Planning Committee  
320 Rober S. Kerr, Suite 101  
Oklahoma City, OK 73102

Safety-Kleen Systems Inc.  
Attn: Emilly DeVore  
7528 Newcastle Road  
Oklahoma City, OK 73169

**Subject: RCRA Contingency Plan Agreement**  
**Safety-Kleen Systems Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Ms. DeVore:

This is to acknowledge the committee's receipt of the Contingency Plan for Safety-Kleen, and the department agrees to act in accordance with its capabilities should an emergency occur and be called upon to respond.

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Name

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Signature

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Title

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Date



September 13, 2024

Oklahoma Department of Environmental Quality  
Land Protection Division – OHMERC  
P.O. Box 1677  
Oklahoma City, OK 73101-1677

**Subject: RCRA Contingency Plan Distribution**  
**Safety-Kleen Systems, Inc.**  
**7528 Newcastle Road**  
**Oklahoma City, OK 73169**

Dear Oklahoma Hazardous Materials Emergency Response Commission (OHMERC):

The Safety-Kleen facility referenced above has updated the facility Contingency Plan and it is being submitted for your review so that you may familiarize yourselves with the facility layout, properties of hazardous waste handled at the facility, places where personnel would normally be working, entrances to roads inside the facility, possible evacuation routes, and the types of injuries/illnesses which could result from fires, explosions, or releases at the facility.

To fulfill our requirements under 40 CFR 262.256, Safety-Kleen would greatly appreciate the return of the form below acknowledging that the plan has been received by the OHMERC. This form may be returned via regular mail or e-mailed to [devore.emilly@safety-kleen.com](mailto:devore.emilly@safety-kleen.com). If you have any questions or require any additional information, feel free to email me or contact me at (417) 324-8838.

Sincerely,

*Emilly DeVore*

Emilly DeVore  
Sr. Environmental Compliance Manager  
Safety-Kleen Systems, Inc.

Oklahoma Department of Environmental Quality  
Land Protection Division – OHMERC  
P.O. Box 1677  
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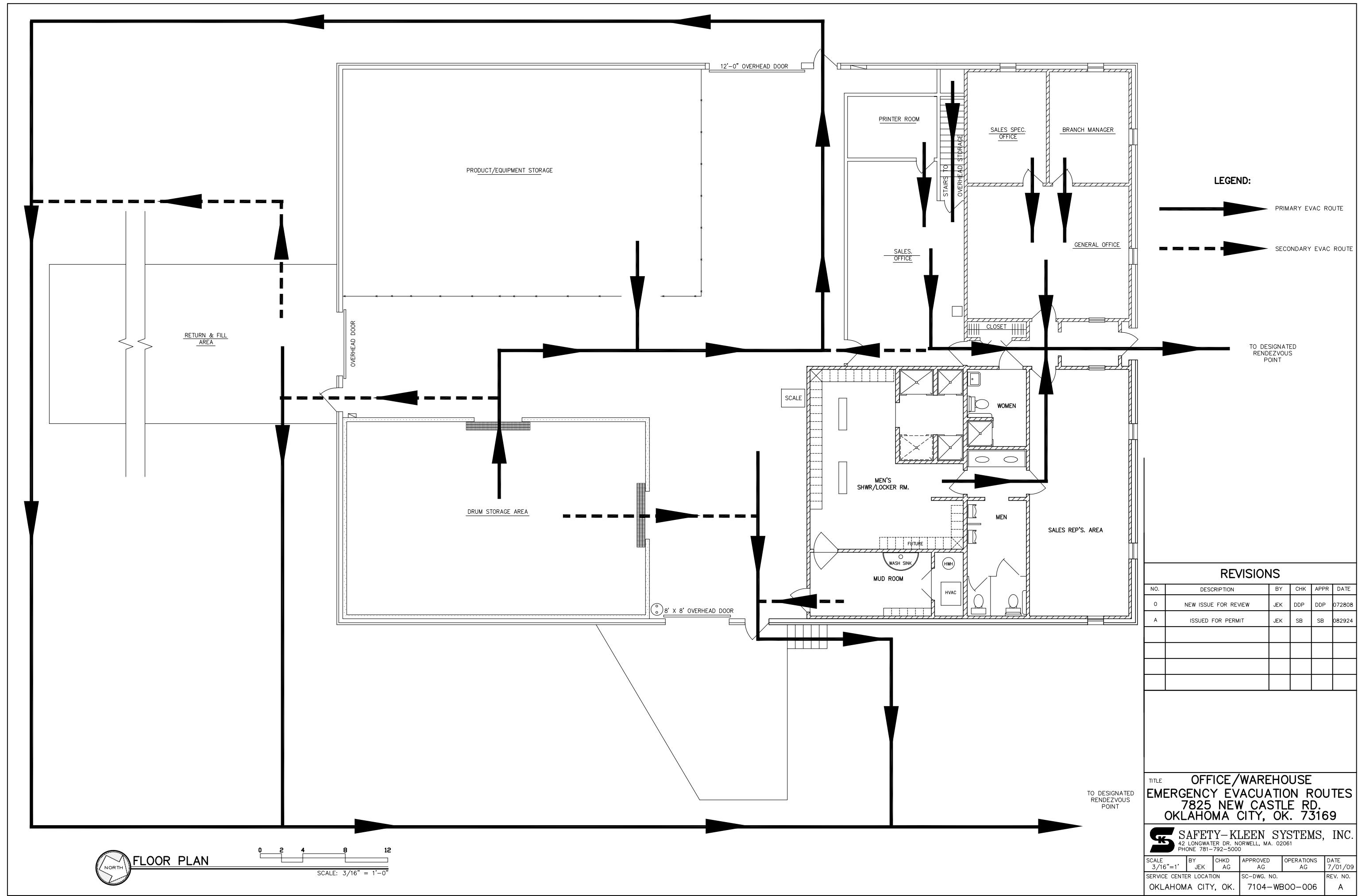
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Title

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Date

## **EMERGENCY EVACUATION PLAN**



## **SDS SHEETS**



# Safety Data Sheets (SDS)

All Safety Data Sheets (SDS) for materials associated with Clean Harbors, Inc., Safety-Kleen Systems, and affiliated brands can be found on our website.

Please utilize the QR Code below to access our database to search.



Alternatively, you can reach the database directly through the following URL: <https://www.cleanharbors.com/sds-search>



## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

### \* \* \* Section 1 - Identification \* \* \*

#### Product Identifier

SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

#### Product Code

5820, 5825, 6782

#### Synonyms

Not applicable.

#### Recommended Use

For cleaning coating equipment (e.g., paint spray guns). If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

#### Restrictions on Use

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.**

#### Manufacturer Information

Safety-Kleen Systems, Inc.

Phone: 1-800-669-5740

2600 North Central Expressway

Suite 200

Richardson, TX 75080

Emergency # 1-800-468-1760

[www.safety-kleen.com](http://www.safety-kleen.com)

#### Issue Date

February 1, 2016

#### Supersedes Issue Date

November 1, 2014

#### Original Issue Date

July 20, 1989

### \* \* \* Section 2 - Hazard(s) Identification \* \* \*

#### Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 2

Acute Toxicity (Inhalation), Category 2

Acute Toxicity (Oral), Category 4

Skin Corrosion / Irritation, Category 2

Eye Damage / Irritation, Category 1

Germ Cell Mutagenicity, Category 1B

Carcinogenicity, Category 1B

Toxic to Reproduction, Category 2

Specific Target Organ Toxicity - Single Exposure, Category 1 (central nervous system, respiratory system, liver, and heart); Single Exposure, Category 2 (kidneys); Single Exposure, Category 3 (respiratory system and central nervous system)

Specific Target Organ Toxicity Repeated Exposure, Category 1 (central nervous system, nervous system, nervous system, liver, respiratory system, and heart); Repeated Exposure, Category 2 (blood, kidneys, and lungs)

Aspiration Hazard, Category 1

Hazardous to the Aquatic Environment - Acute Hazard, Category 3; Chronic Hazard, Category 3

#### GHS LABEL ELEMENTS

#### Symbol(s)



# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Signal Word

DANGER!

## Hazard Statement(s)

Highly flammable liquid and vapor

Fatal if inhaled

Harmful if swallowed

Causes skin irritation, serious eye damage, and damage to central nervous system, liver, respiratory system, and heart

May cause genetic defects, cancer, damage to kidneys, drowsiness and dizziness, and respiratory irritation.

Suspected of damaging fertility or the unborn child.

Causes damage to central nervous system, liver, respiratory system, and heart through prolonged or repeated exposure.

May cause damage to blood, kidneys, and lungs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Harmful to aquatic life with long lasting effects

## Precautionary Statement(s)

### Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Wear respiratory protection. Do not eat, drink or smoke when using this product. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

### Response

In case of fire: Use carbon dioxide, regular foam, regular dry chemical, and water spray for extinction. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment may be needed, see first aid section of Safety Data Sheet. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

### Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

### Hazard(s) Not Otherwise Classified

None known.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \* \* \* Section 3 - Composition / Information on Ingredients \* \* \*

CAS	Component	Percent
63231-51-6	Aromatic hydrocarbons	30-75
*MIXTURE	Ketones	0-60
**MIXTURE	Aliphatic hydrocarbons	0-60
***MIXTURE	Acetates	0-17
763-69-9	Ethyl 3-ethoxypropanoate	0-17
68475-56-9	Alcohols, C1-3	0-24
****MIXTURE	Other alcohols	0-20
*****MIXTURE	Chlorinated solvents	0-1

### Component Information/Information on Non-Hazardous Components

\*Mixture of 67-64-1, 78-93-3, 108-10-1, 110-43-0, 107-87-9

\*\*Mixture of 64741-89-5, 8030-6

\*\*\*Mixture of 123-86-4, 110-19-0, 108-21-4, 108-65-6, 141-78-6

\*\*\*\*Mixture of 71-36-3, 75-65-0

\*\*\*\*\*Mixture of 75-09-2, 127-18-4, 71-55-6

## \* \* \* Section 4 - First Aid Measures \* \* \*

### Description of Necessary Measures

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

#### Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth.

### Most Important Symptoms/Effects

#### Acute

Harmful if swallowed, fatal if inhaled, eye burns, skin irritation, central nervous system damage, respiratory system damage, liver damage, heart damage, respiratory tract irritation, central nervous system depression, kidney damage, lung damage (from aspiration).

#### Delayed

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, blood damage, respiratory system damage, heart damage, lung damage.

### Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively.

## \* \* \* Section 5 - Fire-Fighting Measures \* \* \*

### Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, or water spray.

### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive fumes. Runoff may create fire or explosion hazard. Empty product containers may retain product residue and can be dangerous. Containers may rupture or explode.

## Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

## Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## Fire Fighting Measures

Keep storage containers cool with water spray. Move container from fire area if it can be done without risk. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Stay away from the ends of tanks. Do not scatter spilled material with high-pressure water streams. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

## NFPA Ratings: Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \* \* \* Section 6 - Accidental Release Measures \* \* \*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see **Section 8, Exposure Controls/Personal Protection**. Avoid release to the environment.

### Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8, Exposure Control/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15, Regulatory Information**.

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring large quantities of product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product. Wash thoroughly after handling.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Conditions for Safe Storage, Including Any Incompatibilities

Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Keep container tightly closed. Keep cool. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. Store containers in a cool, dry place. Store in a well-ventilated place. See **Section 14**

**Transportation Information** for Packing Group information.

## Incompatibilities

Combustible materials, strong acids, strong oxidizing materials, alkalies, reducing agents, reactive halogens, reactive metals.

## \* \* \* Section 8 - Exposure Controls / Personal Protection \* \* \*

### Component Exposure Limits

#### \*Mixture (107-87-9)

**ACGIH:** 150 ppm STEL  
**OSHA Final:** 200 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 200 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**NIOSH:** 150 ppm TWA; 530 mg/m<sup>3</sup> TWA

#### \*Mixture (108-10-1)

**ACGIH:** 20 ppm TWA  
75 ppm STEL  
**OSHA Final:** 100 ppm TWA; 410 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
**NIOSH:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
75 ppm STEL; 300 mg/m<sup>3</sup> STEL

#### \*Mixture (110-43-0)

**ACGIH:** 50 ppm TWA  
**OSHA Final:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA  
**NIOSH:** 100 ppm TWA; 465 mg/m<sup>3</sup> TWA

#### \*Mixture (67-64-1)

**ACGIH:** 500 ppm TWA  
750 ppm STEL  
**OSHA Final:** 1000 ppm TWA; 2400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 750 ppm TWA; 1800 mg/m<sup>3</sup> TWA  
2400 mg/m<sup>3</sup> STEL (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors); 1000 ppm STEL  
**NIOSH:** 250 ppm TWA; 590 mg/m<sup>3</sup> TWA

#### \*Mixture (78-93-3)

**ACGIH:** 200 ppm TWA  
300 ppm STEL  
**OSHA Final:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
**NIOSH:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL

#### \*\*Mixture (8030-30-6)

**OSHA Final:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA  
**NIOSH:** 100 ppm TWA; 400 mg/m<sup>3</sup> TWA

#### \*\*\*Mixture (141-78-6)

**ACGIH:** 400 ppm TWA  
**OSHA Final:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA  
**NIOSH:** 400 ppm TWA; 1400 mg/m<sup>3</sup> TWA

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \*\*\*Mixture (108-21-4)

**ACGIH:** 100 ppm TWA  
200 ppm STEL  
**OSHA Final:** 250 ppm TWA; 950 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 250 ppm TWA; 950 mg/m<sup>3</sup> TWA  
310 ppm STEL; 1185 mg/m<sup>3</sup> STEL

## \*\*\*Mixture (110-19-0)

**ACGIH:** 150 ppm TWA  
**OSHA Final:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA  
**NIOSH:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA

## \*\*\*Mixture (123-86-4)

**ACGIH:** 150 ppm TWA  
200 ppm STEL  
**OSHA Final:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
200 ppm STEL; 950 mg/m<sup>3</sup> STEL  
**NIOSH:** 150 ppm TWA; 710 mg/m<sup>3</sup> TWA  
200 ppm STEL; 950 mg/m<sup>3</sup> STEL

## \*\*\*\*Mixture (71-36-3)

**ACGIH:** 20 ppm TWA  
**OSHA Final:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 50 ppm Ceiling; 150 mg/m<sup>3</sup> Ceiling  
Prevent or reduce skin absorption  
**NIOSH:** 50 ppm Ceiling; 150 mg/m<sup>3</sup> Ceiling  
Potential for dermal absorption

## \*\*\*\*Mixture (75-65-0)

**ACGIH:** 100 ppm TWA  
**OSHA Final:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
150 ppm STEL; 450 mg/m<sup>3</sup> STEL  
**NIOSH:** 100 ppm TWA; 300 mg/m<sup>3</sup> TWA  
150 ppm STEL; 450 mg/m<sup>3</sup> STEL

## \*\*\*\*\*Mixture (127-18-4)

**ACGIH:** 25 ppm TWA  
100 ppm STEL  
**OSHA Final:** 100 ppm TWA  
200 ppm Ceiling  
**OSHA Vacated:** 25 ppm TWA; 170 mg/m<sup>3</sup> TWA

## \*\*\*\*\*Mixture (71-55-6)

**ACGIH:** 350 ppm TWA  
450 ppm STEL  
**OSHA Final:** 350 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
**OSHA Vacated:** 350 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
450 ppm STEL; 2450 mg/m<sup>3</sup> STEL  
**NIOSH:** 350 ppm Ceiling (15 min); 1900 mg/m<sup>3</sup> Ceiling (15 min)

## \*\*\*\*\*Mixture (75-09-2)

**ACGIH:** 50 ppm TWA  
**OSHA Final:** 125 ppm STEL (See 29 CFR 1910.1052, 15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052)  
25 ppm TWA  
125 ppm STEL (see 29 CFR 1910.1052)  
**OSHA Vacated:** 500 ppm TWA  
2000 ppm STEL (5 min in any 3 h)  
1000 ppm Ceiling

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Appropriate Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Use explosion proof equipment. Ensure compliance with applicable exposure limits.

## Individual Protective Measures, such as Personal Protective Equipment.

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coat or apron.

## Eyes/Face Protection

Eye protection: Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

## Skin Protection

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC), neoprene or equivalent gloves is not recommended.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

## Respiratory Protection

Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of methanol or methylene chloride may exceed applicable exposure limits. Otherwise, use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

## \* \* \* Section 9 - Physical & Chemical Properties \* \* \*

**Appearance/Odor :** Liquid, clear and colorless, solvent odor

**pH:** Not applicable

**Boiling Point:** 133 to 342°F (56 to 172°C)

**Odor Threshold:** Not available.

**Solubility (H<sub>2</sub>O):** Slight.

**Melting Point:** Not available.

**Density:** 6.9 LB/US gal (830 g/L) (approximately)

**Specific Gravity:** 0.83 (water = 1) (approximately)

**Evaporation Rate:** 3.7 (butyl acetate = 1) (based on a similar product)

**Octanol/H<sub>2</sub>O Coeff.:** Not available.

**LFL:** 1 VOL% (approximately)

**Auto Ignition Temperature:** 800°F (427°C)

**UFL:** 13 VOL% (approximately)

**Flash Point:** less than 70°F (21°C) Tag Closed Cup

**Vapor Pressure:** 86 mm Hg at 68°F (20°C)  
205 mmHg at 100°F (38°C)

**Viscosity:** Not available

**Vapor Density:** 2.2 to 3.9 (air = 1) (approximately)

## Other Property Information

No information is available.

## \* \* \* Section 10 - Stability & Reactivity \* \* \*

## Reactivity

No reactivity hazard is expected.

## Chemical Stability

Stable under normal temperatures and pressures.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

## Conditions To Avoid

Avoid heat, sparks, flames, and other sources of ignition Avoid contact with incompatible materials.

## Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

## Hazardous Decomposition Products

Burning may produce phosgene, chlorides, formaldehyde, acetic acid, carbon monoxide, and unidentified organic compounds. See also Section 5, Hazardous Combustion Products.

## \* \* \* Section 11 - Toxicological Information \* \* \*

### Toxicity Data and Information

#### Component Analysis - LD50/LC50

##### \*Mixture (107-87-9)

Dermal LD50 Rat 6480 mg/kg; Inhalation LC50 Rat 2000 ppm 4 h; Oral LD50 Rat 1600 mg/kg

##### \*Mixture (108-10-1)

Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 8.2 mg/L 4 h; Oral LD50 Rat 2080 mg/kg

##### \*Mixture (110-43-0)

Dermal LD50 Rabbit 12.6 mL/kg; Inhalation LC50 Rat >2000 ppm 4 h; Oral LD50 Rat 1600 mg/kg

##### \*\*Mixture (64741-89-5)

Oral LD50 Rat >15 g/kg; Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 2.18 mg/L 4 h

##### \*Mixture (67-64-1)

Oral LD50 Rat 5800 mg/kg; Inhalation LC50 Rat 50100 mg/m<sup>3</sup> 8 h

##### \*Mixture (78-93-3)

Dermal LD50 Rabbit 5000 mg/kg; Inhalation LC50 Rat 11700 ppm 4 h; Oral LD50 Rat 2483 mg/kg

##### \*\*Mixture (8030-30-6)

Oral LD50 Rat >5 g/kg

##### \*\*\*Mixture (141-78-6)

Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >18000 mg/kg; Inhalation LC50 Mouse 1500 ppm 4 h (vapor)

##### \*\*\*Mixture (108-21-4)

Dermal LD50 Rabbit >20 mL/kg; Inhalation LC50 Rat 50600 mg/m<sup>3</sup> 8 h; Oral LD50 Rat 3000 mg/kg

##### \*\*\*Mixture (108-65-6)

Dermal LD50 Rabbit >5 g/kg; Oral LD50 Rat 8532 mg/kg

##### \*\*\*Mixture (110-19-0)

Dermal LD50 Rabbit >17400 mg/kg; Oral LD50 Rat 15400 mg/kg

#### Ethyl 3-ethoxypropanoate (763-69-9)

Oral LD50 Rat 5 g/kg

##### \*\*\*Mixture (123-86-4)

Oral LD50 Rat 10768 mg/kg; Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 390 ppm 4 h

##### \*\*\*\*Mixture (71-36-3)

Dermal LD50 Rabbit 3402 mg/kg; Inhalation LC50 Rat >8000 ppm 4 h; Oral LD50 Rat 700 mg/kg

##### \*\*\*\*Mixture (75-65-0)

Dermal LD50 Rabbit >2 g/kg; Inhalation LC50 Rat >10000 ppm 4 h (vapor); Oral LD50 Rat 2200 mg/kg

##### \*\*\*\*\*Mixture (127-18-4)

Oral LD50 Rat 2629 mg/kg; Dermal LD50 Mouse 2800 mg/kg; Inhalation LC50 Rat 27.8 mg/L 4 h (vapor)

##### \*\*\*\*\*Mixture (71-55-6)

Oral LD50 Rat 9600 mg/kg; Inhalation LC50 Rat 18000 ppm 4 h; Dermal LD50 Rabbit >15800 mg/kg

##### \*\*\*\*\*Mixture (75-09-2)

Inhalation LC50 Rat 53 mg/L 6 h (vapor); Oral LD50 Rat 1600 mg/kg

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Information on Likely Routes of Exposure

### Inhalation

Fatal if inhaled. May cause irritation, nausea, and central nervous system effects.

### Ingestion

Aspiration hazard. Harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea.

### Skin Contact

Causes skin irritation.

### Eye Contact

Causes serious eye damage.

## Immediate Effects

Fatal if inhaled, harmful if swallowed, eye burns, skin irritation, respiratory tract irritation, aspiration hazard, central nervous system damage, central nervous system depression, respiratory system damage, liver damage, heart damage, kidney damage, lung damage (from aspiration).

## Delayed Effects

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, respiratory system damage, heart damage, blood damage, lung damage.

## Irritation/Corrosivity

Eye burns, skin irritation, and respiratory tract irritation.

## Respiratory Sensitization

No information available for the product.

## Skin Sensitization

No information available for the product.

## Carcinogenicity

### Component Carcinogenicity

#### \*Mixture (108-10-1)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**IARC:** Monograph 101 [2013] (Group 2B (possibly carcinogenic to humans))

#### \*Mixture (67-64-1)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

#### \*\*\*\*Mixture (75-65-0)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

#### \*\*\*\*\*Mixture (127-18-4)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**NIOSH:** potential occupational carcinogen

**NTP:** Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen)

**IARC:** Monograph 106 [2014]; Monograph 63 [1995]; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans))

#### \*\*\*\*\*Mixture (71-55-6)

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Supplement 7 [1987]; Monograph 20 [1979] (Group 3 (not classifiable))

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \*\*\*\*\*Mixture (75-09-2)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** 125 ppm STEL (See 29 CFR 1910.1052, 15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052) (specifically regulated carcinogen) Present (select carcinogen)

**NIOSH:** potential occupational carcinogen

**NTP:** Reasonably Anticipated To Be A Human Carcinogen (Suspect Carcinogen)

**IARC:** Monograph 110 [in preparation]; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans))

## Germ Cell Mutagenicity

May cause genetic defects

## Teratogenicity

No information available for the product.

## Reproductive Effects

Available data characterizes this substance as a reproductive hazard.

## Specific Target Organ Effects - Single Exposure

Central nervous system, respiratory system, heart, liver, kidneys

## Specific Target Organ Effects - Repeated Exposure

Central nervous system, nervous system, kidneys, liver, respiratory system, heart, blood, lungs

## Aspiration Hazard

This material is an aspiration hazard.

## Medical Conditions Aggravated by Exposure

Blood disorders, central nervous system disorders, eye disorders, hearing or inner ear disorders, kidney disorders, liver disorders, nervous system disorders, respiratory disorders, skin disorders, heart disorders, systemic disorders.

## \* \* \* Section 12 - Ecological Information \* \* \*

## Ecotoxicity

Harmful to aquatic life with long lasting effects.

## Component Analysis - Ecotoxicity - Aquatic Toxicity

### \*Mixture (107-87-9)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	1190 - 1290 mg/L [flow-through]	

### \*Mixture (108-10-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	496 - 514 mg/L [flow-through]	
96 Hr EC50 Pseudokirchneriella subcapitata	400 mg/L	
48 Hr EC50 Daphnia magna	170 mg/L	

### \*Mixture (110-43-0)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Pimephales promelas	126 - 137 mg/L [flow-through]	

### \*\*Mixture (64741-89-5)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 Oncorhynchus mykiss	>5000 mg/L	
48 Hr EC50 Daphnia magna	>1000 mg/L	

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \*Mixture (67-64-1)

### Duration/Test/Species

96 Hr LC50 Oncorhynchus mykiss  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Lepomis macrochirus  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

4.74 - 6.33 mL/L  
6210 - 8120 mg/L [static]  
8300 mg/L  
10294 - 17704 mg/L [Static]  
12600 - 12700 mg/L

### Notes

## \*Mixture (78-93-3)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

3130 - 3320 mg/L [flow-through]  
>520 mg/L  
5091 mg/L  
4025 - 6440 mg/L [Static]

### Notes

## \*\*Mixture (8030-30-6)

### Duration/Test/Species

96 Hr LC50 Lepomis macrochirus  
72 Hr EC50 Pseudokirchneriella subcapitata

### Concentration/Conditions

9.2 mg/L [static]  
4700 mg/L

### Notes

## \*\*\*Mixture (141-78-6)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
96 Hr LC50 Oncorhynchus mykiss  
96 Hr LC50 Oncorhynchus mykiss  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

220 - 250 mg/L [flow-through]  
484 mg/L [flow-through]  
352 - 500 mg/L [semi-static]  
560 mg/L [Static]

### Notes

## \*\*\*Mixture (108-65-6)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

161 mg/L [static]  
>500 mg/L

### Notes

## Ethyl 3-ethoxypropanoate (763-69-9)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

62 mg/L [static]  
970 mg/L

### Notes

## \*\*\*Mixture (123-86-4)

### Duration/Test/Species

96 Hr LC50 Lepomis macrochirus  
96 Hr LC50 Pimephales promelas  
72 Hr EC50 Desmodesmus subspicatus

### Concentration/Conditions

100 mg/L [static]  
17 - 19 mg/L [flow-through]  
674.7 mg/L

### Notes

## \*\*\*\*Mixture (71-36-3)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Lepomis macrochirus  
96 Hr LC50 Pimephales promelas  
96 Hr EC50 Desmodesmus subspicatus  
72 Hr EC50 Desmodesmus subspicatus  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

1730 - 1910 mg/L [static]  
1740 mg/L [flow-through]  
100000 - 500000 µg/L [static]  
1910000 µg/L [static]  
>500 mg/L  
>500 mg/L  
1983 mg/L  
1897 - 2072 mg/L [Static]

### Notes

## \*\*\*\*Mixture (75-65-0)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
72 Hr EC50 Desmodesmus subspicatus  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

6130 - 6700 mg/L [flow-through]  
>1000 mg/L  
933 mg/L  
4607 - 6577 mg/L [Static]

### Notes

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## \*\*\*\*\*Mixture (127-18-4)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Lepomis macrochirus  
96 Hr LC50 Oncorhynchus mykiss  
96 Hr EC50 Pseudokirchneriella subcapitata  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

12.4 - 14.4 mg/L [flow-through]  
8.6 - 13.5 mg/L [static]  
11.0 - 15.0 mg/L [static]  
4.73 - 5.27 mg/L [flow-through]  
>500 mg/L  
6.1 - 9.0 mg/L [Static]

### Notes

## \*\*\*\*\*Mixture (71-55-6)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
96 Hr LC50 Lepomis macrochirus  
96 Hr LC50 Cyprinus carpio  
96 Hr LC50 Poecilia reticulata  
96 Hr LC50 Poecilia reticulata  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Oncorhynchus mykiss  
96 Hr EC50 Pseudokirchneriella subcapitata  
48 Hr LC50 Daphnia magna  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

35.2 - 50.7 mg/L [flow-through]  
57 - 90 mg/L [static]  
56 mg/L [flow-through]  
52.9 mg/L [flow-through]  
69.7 mg/L [static]  
91 - 126 mg/L [static]  
46 - 59 mg/L [static]  
>500 mg/L  
>530 mg/L  
2384 mg/L  
9.7 - 12.8 mg/L [Static]

### Notes

juvenile

## \*\*\*\*\*Mixture (75-09-2)

### Duration/Test/Species

96 Hr LC50 Pimephales promelas  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Lepomis macrochirus  
96 Hr LC50 Lepomis macrochirus  
96 Hr EC50 Pseudokirchneriella subcapitata  
72 Hr EC50 Pseudokirchneriella subcapitata  
48 Hr EC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

140.8 - 277.8 mg/L [flow-through]  
262 - 855 mg/L [static]  
193 mg/L [static]  
193 mg/L [flow-through]  
>500 mg/L  
>500 mg/L  
1532 - 1847 mg/L [Static]  
190 mg/L

### Notes

## Persistence and Degradability

No information available for the product.

## Bioaccumulation Potential

No information available for the product.

## Mobility in Soil

No information available for the product.

## Other Adverse Effects

No additional information is available.

## \* \* \* Section 13 - Disposal Considerations \* \* \*

## Disposal Methods

D001, D018, D035, D039. Based on available data, this information applies to the product as supplied to the user.

Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

## \* \* \* Section 14 - Transport Information \* \* \*

## Emergency Response Guide Number

128 Reference .North American Emergency Response Guidebook

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## International Transportation Regulations

**DOT** **Shipping Name:** Paint related material

**UN/NA #:** UN1263 **Hazard Class:** 3 **Packing Group:** II

**Required Label(s):** FLAMMABLE LIQUID

**TDG** **Shipping Name:** Paint related material

**UN/NA #:** UN1263 **Hazard Class:** 3 **Packing Group:** II

**Required Label(s):** FLAMMABLE LIQUID

## \* \* \* Section 15 - Regulatory Information \* \* \*

### Volatile Organic Compounds (As Regulated)

Up to 100 WT %; 6.9 lb/US gal (830 g/l)

As per 40 CFR Part 51.100(s)

VOC VP = 86 mm Hg @ 20°C (approx.)

Photochemically Reactive (up to 100% by volume)

Consult your state or local air district for location specific information.

## Federal Regulations

### SARA 302/304

#### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

### SARA 311/312 Hazardous Categories

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No

### SARA Section 313

#### Component Analysis

This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

<b>*Mixture (108-10-1)</b>	1.0 % de minimis concentration
<b>****Mixture (71-36-3)</b>	1.0 % de minimis concentration
<b>****Mixture (75-65-0)</b>	1.0 % de minimis concentration
<b>*****Mixture (127-18-4)</b>	0.1 % de minimis concentration
<b>*****Mixture (71-55-6)</b>	1.0 % de minimis concentration
<b>*****Mixture (75-09-2)</b>	0.1 % de minimis concentration

## CERCLA

#### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

<b>*Mixture (108-10-1)</b>	5000 lb final RQ; 2270 kg final RQ
<b>*Mixture (67-64-1)</b>	5000 lb final RQ; 2270 kg final RQ
<b>*Mixture (78-93-3)</b>	5000 lb final RQ; 2270 kg final RQ
<b>***Mixture (141-78-6)</b>	5000 lb final RQ; 2270 kg final RQ
<b>***Mixture (110-19-0)</b>	5000 lb final RQ; 2270 kg final RQ
<b>***Mixture (123-86-4)</b>	5000 lb final RQ; 2270 kg final RQ
<b>****Mixture (71-36-3)</b>	5000 lb final RQ; 2270 kg final RQ
<b>*****Mixture (127-18-4)</b>	100 lb final RQ; 45.4 kg final RQ
<b>*****Mixture (71-55-6)</b>	1000 lb final RQ; 454 kg final RQ
<b>*****Mixture (75-09-2)</b>	1000 lb final RQ; 454 kg final RQ

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## TSCA Inventory

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

## Component Analysis

Component	CAS #	TSCA
Aromatic hydrocarbons	63231-51-6	No
*Mixture	107-87-9	Yes
*Mixture	108-10-1	Yes
*Mixture	110-43-0	Yes
**Mixture	64741-89-5	Yes
*Mixture	67-64-1	Yes
*Mixture	78-93-3	Yes
**Mixture	8030-30-6	Yes
***Mixture	141-78-6	Yes
***Mixture	108-21-4	Yes
***Mixture	108-65-6	Yes
***Mixture	110-19-0	Yes
Ethyl 3-ethoxypropanoate	763-69-9	Yes
***Mixture	123-86-4	Yes
Alcohols, C1-3	68475-56-9	Yes
****Mixture	71-36-3	Yes
****Mixture	75-65-0	Yes
*****Mixture	127-18-4	Yes
*****Mixture	71-55-6	Yes
*****Mixture	75-09-2	Yes

## U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
*Mixture	107-87-9	Yes	Yes	Yes	Yes	Yes
*Mixture	108-10-1	Yes	Yes	Yes	Yes	Yes
*Mixture	110-43-0	Yes	Yes	Yes	Yes	Yes
**Mixture	64741-89-5	No	Yes	No	No	No
*Mixture	67-64-1	Yes	Yes	Yes	Yes	Yes
*Mixture	78-93-3	Yes	Yes	Yes	Yes	Yes
**Mixture	8030-30-6	Yes	Yes	Yes	Yes	Yes
***Mixture	141-78-6	Yes	Yes	Yes	Yes	Yes
***Mixture	108-21-4	Yes	Yes	Yes	Yes	Yes
***Mixture	110-19-0	Yes	Yes	Yes	Yes	Yes
***Mixture	123-86-4	Yes	Yes	Yes	Yes	Yes
****Mixture	71-36-3	Yes	Yes	Yes	Yes	Yes
*****Mixture	75-65-0	Yes	Yes	Yes	Yes	Yes
*****Mixture	127-18-4	Yes	Yes	Yes	Yes	Yes
*****Mixture	71-55-6	Yes	Yes	Yes	Yes	Yes
*****Mixture	75-09-2	Yes	Yes	Yes	Yes	Yes

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA**

## Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

# Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

## Component Analysis

Component	CAS #	CAN
Aromatic hydrocarbons	63231-51-6	No
*Mixture	107-87-9	DSL
*Mixture	108-10-1	DSL
*Mixture	110-43-0	DSL
**Mixture	64741-89-5	DSL
*Mixture	67-64-1	DSL
*Mixture	78-93-3	DSL
**Mixture	8030-30-6	DSL
***Mixture	141-78-6	DSL
***Mixture	108-21-4	DSL
***Mixture	108-65-6	DSL
***Mixture	110-19-0	DSL
Ethyl 3-ethoxypropanoate	763-69-9	DSL
***Mixture	123-86-4	DSL
Alcohols, C1-3	68475-56-9	NSL
****Mixture	71-36-3	DSL
****Mixture	75-65-0	DSL
*****Mixture	127-18-4	DSL
*****Mixture	71-55-6	DSL
*****Mixture	75-09-2	DSL

## Canadian WHMIS Information

B2, D1B, D2A, D2B

## Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

*Mixture (107-87-9)	1 %
*Mixture (108-10-1)	1 %
*Mixture (110-43-0)	1 %
*Mixture (67-64-1)	1 %
*Mixture (78-93-3)	1 %
***Mixture (141-78-6)	1 %
***Mixture (108-21-4)	1 %
***Mixture (110-19-0)	1 %
***Mixture (123-86-4)	1 %
***Mixture (71-36-3)	1 %
***Mixture (75-65-0)	1 %
*****Mixture (127-18-4)	1 %
*****Mixture (71-55-6)	0.1 %
*****Mixture (75-09-2)	0.1 %

## \* \* \* Section 16 - Other Information \* \* \*

## Revision Information

Update to Section 11.

## Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

### Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

End of Sheet 82343



## Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

#### Material Name

SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

#### Synonyms

Safety-Kleen Premium Gold Solvent; Safety-Kleen Continued Use Product Solvent (CUP); High Flash  
Degreasing Solvent; Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent;  
Mineral Spirits

#### Product Use

Cleaning and degreasing metal parts. If this product is used in combination with other products, refer to the  
Safety Data Sheets for those products.

#### Restrictions on Use

None known.

#### MANUFACTURER/SUPPLIER

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 200  
Richardson, TX 75080  
[www.safety-kleen.com](http://www.safety-kleen.com)  
Phone: 1-800-669-5740  
Emergency Phone #: 1-800-468-1760

#### IMPORTER/DISTRIBUTOR

Safety-Kleen Canada, Inc.  
25 Regan Road  
Brampton, Ontario, Canada L1A 1B2  
  
Phone: 1-800-669-5740  
Emergency # 1-800-468-1760

#### Issue Date

September 30, 2016

#### Supersedes Issue Date

June 28, 2016

#### Original Issue Date

January 26, 1995

### Section 2 - HAZARDS IDENTIFICATION

#### Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 4

Aspiration Hazard - Category 1

Specific Target Organ Toxicity - Single Exposure - Category 3 (central nervous system)

#### GHS Label Elements

#### Symbol(s)



#### Signal Word

Danger

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Hazard Statement(s)

Combustible liquid.  
May be fatal if swallowed and enters airways.  
May cause drowsiness or dizziness.

## Precautionary Statement(s)

### Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection/face protection. Avoid breathing vapor or mist.

### Response

In case of fire: Use Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular foam, dry chemical, water spray, or water fog for extinction. IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other Hazards

None known.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
64742-47-8	Petroleum distillates, hydrotreated light	100

## Section 4 - FIRST AID MEASURES

### Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

### Skin

IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and wash it before reuse. Get medical attention if irritation develops or persists.

### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

### Ingestion

Aspiration hazard. IF SWALLOWED: Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms/Effects

#### Acute

May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.

#### Delayed

May cause damage to central nervous system.

### Indication of any immediate medical attention and special treatment needed

IF exposed: Immediately call a POISON CENTER or doctor/physician. Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Section 5 - FIRE FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Media to use includes Class B/C or Class A/B/C fire extinguisher, carbon dioxide, regular dry chemical, foam, water spray, and water fog.

#### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

#### Special Hazards Arising from the Chemical

Combustible liquid and vapor. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Do not allow run-off from fire-fighting to enter drains or water courses. Closed containers may rupture violently when heated. Empty containers may retain product residue including flammable/explosive vapors. Take precautionary measures against static discharge: May cause fire or explosion.

#### Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and other organic compounds.

#### Advice for firefighters

Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

#### Fire Fighting Measures

Keep away from ignition sources - No smoking. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

## Section 6 - ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

### Methods and Materials for Containment and Cleaning Up

Remove all sources of ignition. Do not touch or walk through spilled material. Stop leak if safe to do so. Wear personal protective clothing and equipment. Appropriate engineering controls: Keep unnecessary people away, isolate hazard area and deny entry. Ventilate the area. Avoid breathing vapor or mist. Use foam on spills to minimize vapors. Keep out of water supplies and sewers. Absorb with earth, sand or other non-combustible material and transfer to container. Use non-sparking tools. Large spills: Reduce vapors with water spray. Dike for later disposal.

### Environmental Precautions

Avoid release to the environment.

## Section 7 - HANDLING AND STORAGE

### Precautions for Safe Handling

Keep away from heat, sparks and flame. Use personal protective equipment as required. When transferring product, trucks and tank cars should be grounded and bonded. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product.

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Keep away from heat and ignition sources. Do not cut, puncture, or weld on or near this container. Empty containers may contain product residue.

## Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, halogens.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component Exposure Limits

Petroleum distillates, hydrotreated light	64742-47-8
ACGIH:	100 ppm TWA (related to Stoddard solvent )
NIOSH:	350 mg/m <sup>3</sup> TWA (related to Stoddard solvent )
	1800 mg/m <sup>3</sup> Ceiling (15 minutes )
OSHA (US):	500 ppm TWA ; 2900 mg/m <sup>3</sup> TWA (Related to Stoddard solvent )
	100 ppm TWA (Related to Stoddard solvent ); 525 mg/m <sup>3</sup> TWA (OSHA (Vacated) )

### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

#### Respiratory Protection

Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

#### Glove Recommendations

Wear appropriate chemical resistant gloves. In case of skin contact: neoprene, nitrile, as well as similar materials in protection gloves; do not use natural rubber.

#### Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, and/or Lab coat or apron.

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear liquid	<b>Physical State</b>	Liquid
<b>Odor</b>	Mild ,hydrocarbon odor	<b>Color</b>	Colorless to pale yellow
<b>Odor Threshold</b>	30 ppm (based on Stoddard Solvent )	<b>pH</b>	Not applicable
<b>Melting Point</b>	-45 F (-43 C )	<b>Boiling Point</b>	350 F (177 C )
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	Not available
<b>Evaporation Rate</b>	<0.1 (butyl acetate = 1)	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	480 F (249 C )(minimum)	<b>Flash Point</b>	148 F (64 C )
<b>Lower Explosive Limit</b>	0.7 VOL%	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	5 VOL%	<b>Vapor Pressure</b>	0.2 mm Hg (at 68 F )
<b>Vapor Density (air=1)</b>	5 (air = 1) (approximately)	<b>Specific Gravity (water=1)</b>	0.77 - 0.82 (at 60 F )
<b>Water Solubility</b>	Insoluble	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density</b>	6.4 - 6.7 lb/US gal	<b>VOC</b>	100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l; As per 40 CFR Part 51.100(s); VOC Vapor Pressure: <1.0 mmHg @ 20°C; Product may or may not be considered photochemically reactive (100% by weight); Consult your state or local air district regulations for location specific information.
<b>Molecular Weight</b>	Not available		

## Other Information

No additional information is available.

## Section 10 - STABILITY AND REACTIVITY

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

### Conditions to Avoid

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

## Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, halogens.

## Hazardous decomposition products

Not applicable under normal conditions of use and storage. Reference to other sections: Section 5.

## Thermal decomposition products

Burning may produce carbon monoxide and other organic compounds.

## Section 11 - TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Inhalation

May cause respiratory irritation, nausea, loss of appetite, headache, drowsiness, dizziness, disorientation, tremors, lung damage, convulsions, coma.

#### Skin Contact

May cause skin irritation.

#### Eye Contact

No information on significant adverse effects.

#### Ingestion

May cause drowsiness or dizziness, headache, loss of coordination, aspiration hazard.

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### Petroleum distillates, hydrotreated light (64742-47-8)

Oral LD50 Rat >5000 mg/kg

Dermal LD50 Rabbit >2000 mg/kg

Inhalation LC50 Rat >5.2 mg/L 4 h

#### Immediate Effects

May cause central nervous system depression. Aspiration may result in lung damage, respiratory tract irritation, May cause skin irritation.

#### Delayed Effects

May cause damage to central nervous system.

#### Irritation/Corrosivity Data

May cause respiratory tract irritation and skin irritation.

#### Respiratory Sensitization

No information available for the product.

#### Dermal Sensitization

No information available for the product.

#### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

#### Germ Cell Mutagenicity

No information available for the product.

#### Tumorigenic Data

No data available

#### Reproductive Toxicity

No information available for the product.

#### Specific Target Organ Toxicity - Single Exposure

May cause central nervous system depression.

#### Specific Target Organ Toxicity - Repeated Exposure

May cause damage to central nervous system.

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Aspiration hazard

May be fatal if swallowed and enters airways. May cause lung damage.

## Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidneys, and eye and/or skin disorders may have increased susceptibility to the effects of exposure.

## Section 12 - ECOLOGICAL INFORMATION

### Component Analysis - Aquatic Toxicity

According to the California Code of Regulations, a toxicity to aquatic life, specifically fish, is determined using an acute 96 hour bioassay. A material is non-hazardous if the LC50 is >500 mg/L. This product passed the bioassay and is considered non-hazardous.

### Persistence and Degradability

No information available for the product.

### Bioaccumulative Potential

This material is believed not to bioaccumulate.

### Mobility

Expected to have high mobility in soil.

### Other Toxicity

No additional information is available.

## Section 13 - DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal. This product, if discarded, is not expected to be a characteristic or listed hazardous waste. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

## Section 14 - TRANSPORT INFORMATION

### US DOT Information:

**Non-Bulk Packages (less than or equal to 119 gallons):** Not regulated. Shipping Name: Cleaning compounds (Petroleum naphtha) (Not US DOT regulated)

### Bulk Packages

**Shipping Name:** COMBUSTIBLE LIQUID, N.O.S., (Petroleum naphtha)

**Hazard Class:** 3 **UN/NA #:** NA1993 **Packing Group:** III **Required Label(s):** 3

### IATA Information:

**UN#:** Not regulated as a dangerous good

### TDG Information:

**UN#:** Not regulated as a dangerous good

### Additional information

Emergency Response Guide Number: 128: Reference: North American Emergency Response Guide Book.

# Safety Data Sheet

Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)

SDS ID: 82658

## Section 15 - REGULATORY INFORMATION

### U.S. Federal Regulations

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

### SARA Section 311/312 (40 CFR 370 Subparts B and C)

**Acute Health:** yes **Chronic Health:** yes **Fire:** yes **Pressure:** no **Reactivity:** no

### U.S. State Regulations

None of this product's components are listed on the state lists from MA, MN, NJ or PA

**WARNING!** This product can expose you to chemicals including benzene, dichlorobenzene, ethylbenzene, and naphthalene which are known to the State of California to cause cancer and benzene and toluene which are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.gov](http://www.P65Warnings.gov).

### Canada Regulations

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.

### Canadian WHMIS Ingredient Disclosure List (IDL)

The components of this product are either not listed on the IDL or are present below the threshold limit listed on the IDL.

### WHMIS Classification

B3; D2B

### Component Analysis - Inventory

Petroleum distillates, hydrotreated light (64742-47-8)

US	CA
Yes	DSL

### U.S. Inventory (TSCA)

TSCA: All the components of this substance are listed on or are exempt from the inventory.

## Section 16 - OTHER INFORMATION

### NFPA Ratings

Health: 1 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### Summary of Changes

Revision to meet Canadian WHMIS 2015.

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL – Non-Domestic Substance List (Canada); NFPA -

## Safety Data Sheet

**Material Name: SAFETY-KLEEN PREMIUM SOLVENT (VIRGIN AND RECYCLED)**

**SDS ID: 82658**

National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada).

### Other Information

#### Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.



## Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT   SDS ID: 82411

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT

**Product Code**

50, 699, 6861, 9699

**Synonyms**

None

**Product Use**

For cleaning carburetors and metal parts. If this product is used in combination with other products, refer to the Safety Data Sheet for those products. SDS for use in Canada and the U.S.

**Restrictions on Use**

THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.

**MANUFACTURER/SUPPLIER**

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 200  
Richardson, TX 75080  
[www.safety-kleen.com](http://www.safety-kleen.com)

**IMPORTER/DISTRIBUTOR**

Safety-Kleen Canada, Inc.  
25 Regan Road  
Brampton, Ontario, Canada L1A 1B2

Phone: 1-800-669-5740

Emergency Phone #: 1-800-468-1760

**Issue Date**

December 1, 2016

**Supersedes Issue Date**

September 2, 2014

**Original Issue Date**

December 1, 1989

### Section 2 - HAZARDS IDENTIFICATION

**Classification in accordance with Schedule 1 of Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200**

Flammable Liquids - Category 4

Aspiration Hazard - Category 1

Respiratory Sensitization – Category 1A

Acute Toxicity - Inhalation - Vapor - Category 2

Skin Corrosion/Irritation - Category 1

Serious Eye Damage/Eye Irritation - Category 1

Respiratory Sensitization - Category 1A

Skin Sensitization - Category 1A

Carcinogenicity - Category 2

Reproductive Toxicity - Category 1B

Specific Target Organ Toxicity - Single Exposure. - Category 1 (blood, eyes, liver, nervous and respiratory systems)

Specific Target Organ Toxicity - Single Exposure. - Category 3 (respiratory tract irritation)

Specific Target Organ Toxicity - Repeated Exposure. - Category 1 (adrenal gland, bone marrow, eyes, kidneys, liver, digestive, nervous, and respiratory systems, spleen, and testes)

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## GHS Label Elements

### Symbol(s)



### Signal Word

Danger

### Hazard Statement(s)

Combustible liquid.

May be fatal if swallowed and enters airways.

Fatal if inhaled.

Causes severe skin burns and eye damage.

May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

May cause allergic skin reaction.

Suspected of causing cancer.

May damage fertility or the unborn child.

May cause respiratory irritation.

Causes damage to blood, eyes, liver, and nervous and respiratory systems.

Causes damage to adrenal gland, blood, bone marrow, digestive system, eyes, kidneys, liver, nervous and respiratory systems, spleen, and testes through prolonged and repeated exposure.

### Precautionary Statement(s)

#### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wear respiratory protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

#### Response

In case of fire: Use carbon dioxide, alcohol resistant foam, dry chemical, water spray, or water fog for extinction. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor. Specific treatment is urgent.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Statement of Unknown Toxicity

25.5% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### Other hazards

None known.

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
64742-94-5	Solvent naphtha (petroleum), heavy arom.	30-60
872-50-4	1-Methyl-2-pyrrolidone	10-30
34590-94-8	Dipropylene glycol monomethyl ether	7-13
112-80-1	Oleic acid	5-10
141-43-5	Ethanolamine	3-7
91-20-3	Naphthalene	3-6

## Section 4 - FIRST AID MEASURES

### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

### Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Call 1-800-468-1760 for additional information.

### Most Important Symptoms/Effects

#### Acute

Fatal if inhaled, eye, skin, liver, nervous and respiratory system, spleen, and testes damage, blood system disorders, respiratory tract irritation, skin and respiratory sensitizer, aspiration hazard.

#### Delayed

Cancer, reproductive effects, skin and respiratory sensitizer.

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

## Section 5 - FIRE FIGHTING MEASURES

### Extinguishing Media

#### Suitable Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog

#### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## Special Hazards Arising from the Chemical

Combustible liquid. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. Empty containers may retain product residue including flammable/explosive vapors. Product may be sensitive to static discharge, which could result in fire or explosion.

## Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce nitrogen oxides, acid halides, carbon monoxide, and unidentified organic compounds.

## Fire Fighting Measures

Keep away from sources of ignition - No Smoking. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

## Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

## Section 6 - ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

### Methods and Materials for Containment and Cleaning Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal. There may be specific regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.

## Section 7 - HANDLING AND STORAGE

### Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes. Skin clothing shoes. Do not smoke when using this product.

### Conditions for Safe Storage, Including any Incompatibilities

Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORTATION INFORMATION for Packing Group information.

### Incompatible Materials

Strong oxidizing materials

## Safety Data Sheet

Material Name: **SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT**    SDS ID: **82411**

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

<b>1-Methyl-2-pyrrolidone</b>	<b>872-50-4</b>
Ontario	400 mg/m <sup>3</sup> TWA
Yukon	100 ppm TWA ; 400 mg/m <sup>3</sup> TWA; 125 ppm STEL ; 500 mg/m <sup>3</sup> STEL
<b>Dipropylene glycol monomethyl ether</b>	<b>34590-94-8</b>
Alberta	100 ppm TWA ; 606 mg/m <sup>3</sup> TWA; 150 ppm STEL ; 909 mg/m <sup>3</sup> STEL; Substance may be readily absorbed through intact skin
British Columbia; Northwest Territories; Nunavut; Ontario	100 ppm TWA; Skin notation ; 150 ppm STEL
Manitoba	100 ppm TWA; Skin - potential for cutaneous absorption; Skin - potential significant contribution to overall exposure by the cutaneous route
New Brunswick	100 ppm TWA ; 606 mg/m <sup>3</sup> TWA; 150 ppm STEL ; 909 mg/m <sup>3</sup> STEL Skin - potential for cutaneous absorption
Nova Scotia	100 ppm TWA; 150 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route
Prince Edward Island	100 ppm TWA; 150 ppm STEL
Quebec	100 ppm TWAEV ; 606 mg/m <sup>3</sup> TWAEV; 150 ppm STEV ; 909 mg/m <sup>3</sup> STEV; Skin designation
Saskatchewan	100 ppm TWA; 150 ppm STEL;Potentially harmful after absorption through skin or mucous membranes
ACGIH	100 ppm TWA; 150 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA Final	100 ppm TWA; 600 mg/m <sup>3</sup> TWA; prevent or reduce skin absorption
OSHA Vacated	100 ppm TWA; 600 mg/m <sup>3</sup> TWA; 150 ppm STEL; 900 mg/m <sup>3</sup> STEL; Prevent or reduce skin absorption
NIOSH	100 ppm TWA; 600 mg/m <sup>3</sup> TWA; 150 ppm STEL; 900 mg/m <sup>3</sup> STEL; Potential for dermal absorption

## Safety Data Sheet

Material Name: **SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT**    SDS ID: **82411**

<b>Ethanolamine</b>	<b>141-43-5</b>
Alberta; New Brunswick	3 ppm TWA ; 7.5 mg/m <sup>3</sup> TWA; 6 ppm STEL ; 15 mg/m <sup>3</sup> STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	3 ppm TWA; 6 ppm STEL
Manitoba	3 ppm TWA
Quebec	3 ppm TWAEV ; 7.5 mg/m <sup>3</sup> TWAEV; 6 ppm STEV ; 15 mg/m <sup>3</sup> STEV
Yukon	3 ppm TWA ; 6 mg/m <sup>3</sup> TWA; 6 ppm STEL ; 12 mg/m <sup>3</sup> STEL
ACGIH	3 ppm TWA; 6 ppm STEL
OSHA Final	3 ppm TWA; 6 mg/m <sup>3</sup> TWA
OSHA Vacated; NIOSH	3 ppm TWA; 8 mg/m <sup>3</sup> TWA; 6 ppm STEL; 15 mg/m <sup>3</sup> STEL
<b>Naphthalene</b>	<b>91-20-3</b>
Alberta	10 ppm TWA ; 52 mg/m <sup>3</sup> TWA; 15 ppm STEL ; 79 mg/m <sup>3</sup> STEL; Substance may be readily absorbed through intact skin
British Columbia; Northwest Territories; Nunavut; Ontario; Saskatchewan	10 ppm TWA; Skin notation; 15 ppm STEL
Manitoba; Nova Scotia	10 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route
New Brunswick	10 ppm TWA ; 52 mg/m <sup>3</sup> TWA; 15 ppm STEL ; 79 mg/m <sup>3</sup> STEL
Prince Edward Island	10 ppm TWA
Quebec	10 ppm TWAEV ; 52 mg/m <sup>3</sup> TWAEV; 15 ppm STEV ; 79 mg/m <sup>3</sup> STEV
Yukon	10 ppm TWA ; 50 mg/m <sup>3</sup> TWA; 15 ppm STEL ; 75 mg/m <sup>3</sup> STEL
ACGIH:	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA Final	3 ppm TWA; 50 mg/m <sup>3</sup> TWA;

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

OSHA Vacated; NIOSH	10 ppm TWA; 50 mg/m <sup>3</sup> TWA; 15 ppm STEL; 75 mg/m <sup>3</sup> STEL
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## ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

### 1-Methyl-2-pyrrolidone (872-50-4)

100 mg/L Medium: urine Time: end of shift Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

### Naphthalene (91-20-3)

Time: end of shift Parameter: 1-Naphthol with hydrolysis plus 2-Naphthol with hydrolysis (nonquantitative, nonspecific)

## Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

## Individual Protection Measures, such as Personal Protective Equipment

### Eye/face protection

Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.

### Skin Protection

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

### Respiratory Protection

Use NIOSH-certified, full-faced, air-purifying respiratory protective equipment with organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

### Glove Recommendations

Wear appropriate chemical resistant gloves.

### Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, gloves, and lab coat or apron.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear and brown	<b>Physical State</b>	Liquid
<b>Odor</b>	Characteristic	<b>Color</b>	Brown.
<b>Odor Threshold</b>	Not available	<b>pH</b>	11
<b>Melting Point</b>	<-12 °C (10 °F )	<b>Boiling Point</b>	171 °C (340 °F Initial )
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	Not available
<b>Evaporation Rate</b>	1 (Butyl acetate = 1 )	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	443 °C (829 °F Approximate )	<b>Flash Point</b>	>60 °C (140 °F )

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

<b>Lower Explosive Limit</b>	0.8 vol% (Approximate )	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	7 vol% (Approximate )	<b>Vapor Pressure</b>	<0.4 mmHg @ 68°F °C (20° C )
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	0.95 (Water = 1 )
<b>Water Solubility</b>	(Complete )	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density</b>	7.9 lb/gal (US ) (950 g/l)	<b>Molecular Weight</b>	Not applicable
<b>Volatile Organic Compounds (As Regulated)</b>	100 WT%; 7.9 LB/US gal; 950 g/l As per U.S EPA 40 CFR 51.100(s) VOC Vapor Pressure <1.0 mmHg @ 20°C CONTAINS: Photochemically Reactive solvent 60% by volume Consult your state or local air district regulations for location specific information.		

## Section 10 - STABILITY AND REACTIVITY

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable under normal temperatures and pressures.

### Possibility of Hazardous Reactions

Will not polymerize.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition Avoid contact with incompatible materials.

### Incompatible Materials

Acids, alkalies, oxidizing agents, reactive halogens, or reactive metals.

### Hazardous decomposition products

Not applicable under normal conditions of use and storage. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

## Section 11 - TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Inhalation

Fatal by inhalation if concentrations in air approach component LC50 values. May cause respiratory tract irritation, allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin Contact

Causes severe skin burns and eye damage. May cause an allergic skin reaction.

#### Eye Contact

Causes serious eye damage.

#### Ingestion

May be fatal if swallowed and enters airways

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## Solvent naphtha (petroleum), heavy arom. (64742-94-5)

Oral LD50 Rat >5000 mg/kg; dermal LD50 Rabbit >2 mL/kg; Inhalation LC50 Rat >590 mg/m<sup>3</sup> 4 h

## 1-Methyl-2-pyrrolidone (872-50-4)

Oral LD50 Rat 3914 mg/kg; Dermal LD50 Rabbit 8 g/kg; Inhalation LC50 Rat >5.1 mg/L 4 h

## Dipropylene glycol monomethyl ether (34590-94-8)

Oral LD50 Rat 5400 µL/kg; Dermal LD50 Rabbit 9500 mg/kg

## Oleic acid (112-80-1)

Oral LD50 Rat 25 g/kg

## Ethanolamine (141-43-5)

Oral LD50 Rat 1720 mg/kg; Dermal LD50 Rabbit 1000 mg/kg

## Naphthalene (91-20-3)

Oral LD50 Rat 1110 mg/kg; Dermal LD50 Rabbit 1120 mg/kg; Inhalation LC50 Rat >340 mg/m<sup>3</sup> 1 h

## Product Toxicity Data

### Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Vapor	0.6954 mg/L
Oral	> 2000 mg/kg

### Immediate Effects

Fatal if inhaled, eye, skin, liver, respiratory and nervous system damage, respiratory tract irritation, skin and respiratory sensitizer, aspiration hazard.

### Delayed Effects

Adrenal gland effects, blood disorders, bone marrow effects, digestive system effects, eye damage, kidney damage, liver damage, nervous system damage, respiratory system damage, spleen damage, testes damage, reproductive effects, cancer, skin and respiratory sensitizer.

### Irritation/Corrosivity Data

Causes eye and skin burns, respiratory tract irritation.

### Respiratory Sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Dermal Sensitization

May cause an allergic skin reaction.

### Component Carcinogenicity

Naphthalene	91-20-3
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
OSHA:	Present

### Germ Cell Mutagenicity

No significant adverse effects expected.

### Tumorigenic Data

No data available

### Reproductive Toxicity

Available data characterizes this substance as a reproductive hazard.

### Specific Target Organ Toxicity - Single Exposure

Blood, eye, liver, nervous and respiratory system

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## Specific Target Organ Toxicity - Repeated Exposure

Adrenal glands, blood, bone marrow, digestive system, eye, kidneys, liver, nervous system, respiratory system, spleen, testes.

## Aspiration hazard

This material is an aspiration hazard.

## Medical Conditions Aggravated by Exposure

Individuals with pre-existing liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

## Section 12 - ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

### Component Analysis - Aquatic Toxicity

<b>Solvent naphtha (petroleum), heavy arom.</b>	<b>64742-94-5</b>
Fish:	LC50 96 h Pimephales promelas 19 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 2.34 mg/L; LC50 96 h Lepomis macrochirus 1740 mg/L [static ]; LC50 96 h Pimephales promelas 45 mg/L [flow-through ]; LC50 96 h Pimephales promelas 41 mg/L
Invertebrate:	EC50 48 h Daphnia magna 0.95 mg/L IUCLID
<b>1-Methyl-2-pyrrolidone</b>	<b>872-50-4</b>
Fish:	LC50 96 h Lepomis macrochirus 832 mg/L [static ]; LC50 96 h Pimephales promelas 1072 mg/L [static ]; LC50 96 h Poecilia reticulata 1400 mg/L [static ]
Algae:	EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 4897 mg/L IUCLID
<b>Dipropylene glycol monomethyl ether</b>	<b>34590-94-8</b>
Fish:	LC50 96 h Pimephales promelas >10000 mg/L [static ]
Invertebrate:	LC50 48 h Daphnia magna 1919 mg/L IUCLID
<b>Oleic acid</b>	<b>112-80-1</b>
Fish:	LC50 96 h Pimephales promelas 205 mg/L [static ]
<b>Ethanolamine</b>	<b>141-43-5</b>
Fish:	LC50 96 h Pimephales promelas 227 mg/L [flow-through ]; LC50 96 h Brachydanio rerio 3684 mg/L [static ]; LC50 96 h Lepomis macrochirus 300 - 1000 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 114 - 196 mg/L [static ]; LC50 96

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

	h Oncorhynchus mykiss >200 mg/L [flow-through ]
Algae:	EC50 72 h Desmodesmus subspicatus 15 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 65 mg/L IUCLID
<b>Naphthalene</b>	<b>91-20-3</b>
Fish:	LC50 96 h Pimephales promelas 5.74 - 6.44 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 1.6 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 0.91 - 2.82 mg/L [static ]; LC50 96 h Pimephales promelas 1.99 mg/L [static ]; LC50 96 h Lepomis macrochirus 31.0265 mg/L [static ]
Invertebrate:	LC50 48 h Daphnia magna 2.16 mg/L IUCLID ; EC50 48 h Daphnia magna 1.96 mg/L [Flow through ] EPA ; EC50 48 h Daphnia magna 1.09 - 3.4 mg/L [Static ] EPA

## Invertebrate Toxicity

No additional information is available.

## Persistence and Degradability

No information available for the product.

## Bioaccumulative Potential

No information available for the product.

## Mobility

No information available for the product.

## Other Toxicity

No additional information is available.

## Section 13 - DISPOSAL CONSIDERATIONS

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

### Disposal Methods

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

## Section 14 - TRANSPORT INFORMATION

### US DOT Information:

**Shipping Name:** Corrosive liquid, basic, organic, n.o.s. (Contains: monoethanolamine)

**Hazard Class:** 8; **UN/NA #:** UN3267; **Packing Group:** III; **Required Label(s):** CORROSIVE

**Additional information:** Marine pollutant.

### IATA Information:

**Shipping Name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

**UN#:** UN3267

**Additional information:** Marine pollutant.

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## TDG Information:

**Shipping Name:** CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (monoethanolamine)

**Hazard Class:** 8; **UN#:** UN3267; **Packing Group:** III; **Required Label(s):** CORROSIVE

**Additional information:** Marine pollutant.

## Additional information

Emergency Response Guide Number: 128: Reference: North American Emergency Response Guidebook

## Section 15 - REGULATORY INFORMATION

### Canada Regulations

#### CEPA - Priority Substances List

None of this product's components are on the list.

#### Ozone Depleting Substances

None of this product's components are on the list

#### Council of Ministers of the Environment - Soil Quality Guidelines

Naphthalene	91-20-3
Residential and Parkland	(consult factsheet )

#### Council of Ministers of the Environment - Water Quality Guidelines

Naphthalene	91-20-3
Marine Aquatic Life	1.4 µg/L

#### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

1-Methyl-2-pyrrolidone	872-50-4
SARA 313:	1 % de minimis concentration
Naphthalene	91-20-3
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ

#### SARA Section 311/312 (40 CFR 370 Subparts B and C)

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactivity:** No

#### Component Analysis - Inventory

Solvent naphtha (petroleum), heavy arom. (64742-94-5), 1-Methyl-2-pyrrolidone (872-50-4);

Dipropylene glycol monomethyl ether (34590-94-8); Oleic acid (112-80-1); Ethanolamine (141-43-5); Naphthalene (91-20-3)

US	CA
Yes	DSL

# Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT    SDS ID: 82411

## U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
1-Methyl-2-pyrrolidone	872-50-4	No	Yes	No	Yes	Yes
Dipropylene glycol monomethyl ether	34590-94-8	Yes	Yes	Yes	Yes	Yes
Oleic acid	112-80-1	No	No	No	No	Yes
Ethanolamine	141-43-5	Yes	Yes	Yes	Yes	Yes
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes

## Section 16 - OTHER INFORMATION

### NFPA Ratings:

**Health: 3 Fire: 2 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### Summary of Changes

Revision to comply with WHMIS 2015.

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada)

### Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.



## Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

### \* \* \* Section 1 - Identification \* \* \*

#### Product Identifier

SAFETY-KLEEN MULTI-USE LACQUER THINNER

#### Product Code

6801, 16801

#### Synonyms

Not applicable.

#### Recommended Use

For cleaning coating equipment (e.g., paint guns); Lacquer thinner. If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

#### Restrictions on Use

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA**

#### Manufacturer Information

Safety-Kleen Systems, Inc.

Phone: 1-800-669-5740

2600 North Central Expressway

Suite 400

Richardson, TX 75080

Emergency # 1-800-468-1760

[www.safety-kleen.com](http://www.safety-kleen.com)

#### Issue Date

February 6, 2016

#### Supersedes Issue Date

November 1, 2014

#### Original Issue Date

July 29, 1989

### \* \* \* Section 2 - Hazard(s) Identification \* \* \*

#### Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 2

Acute Toxicity (Oral), Category 4

Skin Corrosion / Irritation, Category 2

Eye Damage / Irritation, Category 2A

Germ Cell Mutagenicity, Category 1B

Carcinogenicity, Category 1A

Toxic to Reproduction, Category 1A

Specific Target Organ Toxicity - Single Exposure, Category 1 (central nervous system, kidneys, liver, respiratory system, systemic toxicity, and retina); Category 3 (central nervous system and respiratory tract)

Specific Target Organ Toxicity - Repeated Exposure, Category 1 (central nervous system, kidneys, liver, peripheral nervous system, retina, and respiratory system); Category 2 (blood)

Aspiration Hazard, Category 1

#### GHS LABEL ELEMENTS

#### Symbol(s)



# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Signal Word

DANGER!

## Hazard Statement(s)

Highly flammable liquid and vapor

Harmful if swallowed

Causes skin irritation, serious eye irritation, and damage to central nervous system, kidneys, liver, respiratory system, systemic toxicity, and retina

May cause genetic defects, cancer, drowsiness and dizziness, respiratory irritation, and may damage fertility or the unborn child

Causes damage to central nervous system, kidneys, liver, peripheral nervous system, retina, and respiratory system through prolonged or repeated exposure

May cause damage to blood through prolonged or repeated exposure

May be fatal if swallowed and enters airways

## Precautionary Statement(s)

### Prevention

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/clothing and eye/face protection. Do not breathe vapor or mist. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.

### Response

In case of fire, use carbon dioxide, alcohol-resistant foam, dry chemical, or water spray. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Specific treatment may be needed, see first aid section of Safety Data Sheet. If skin irritation occurs, get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Rinse mouth.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

### Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

### Hazard(s) Not Otherwise Classified

None known.

## \* \* \* Section 3 - Composition / Information on Ingredients \* \* \*

CAS	Component	Percent
108-88-3	Toluene	0-50
67-64-1	Acetone	10-30
64742-89-8	Solvent naphtha (petroleum), light aliphatic	0-35
67-63-0	Isopropyl alcohol	2-15
78-93-3	Methyl ethyl ketone	5-10
763-69-9	Ethyl 3-ethoxypopropane	0-10
110-19-0	Isobutyl acetate	0-10
108-10-1	Methyl isobutyl ketone	0-5
67-56-1	Methyl alcohol	0-5
1330-20-7	Xylenes (o-, m-, p- isomers)	0-5
64-17-5	Ethyl alcohol	0-1

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## \* \* \* Section 4 - First Aid Measures \* \* \*

### Description of Necessary Measures

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### Ingestion

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Call 1-800-468-1760 for additional information.

### Most Important Symptoms/Effects

#### Acute

Harmful if swallowed, skin irritation, eye irritation, central nervous system damage, central nervous system depression, kidney damage, liver damage, respiratory system damage, respiratory tract irritation, systemic toxicity, retina damage, aspiration hazard

#### Delayed

Mutagenic effects, cancer, reproductive effects, central nervous system damage, kidney damage, liver damage, peripheral nervous system damage, retina damage, respiratory system damage, blood disorders

### Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

## \* \* \* Section 5 - Fire-Fighting Measures \* \* \*

### Suitable Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, or water spray.

### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

### Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor Avoid friction, static electricity and sparks. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Empty containers may contain product residue. Product may be sensitive to static discharge, which could result in fire or explosion. Run-off to sewer may create a fire hazard.

### Hazardous Combustion Products

Decomposition and combustion materials may be toxic., Burning may produce phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

### Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

### Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Apply water from a protected location or from a safe distance. Dike for later disposal.

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

**NFPA Ratings: Health: 2 Fire: 3 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \* \* \* Section 6 - Accidental Release Measures \* \* \*

### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

### Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8: Exposure Controls/Personal Protection**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15: Regulatory Information**.

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

### Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed when not in use and during transport. Store containers below 120°F (49°C) Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

### Incompatibilities

Strong acids, strong oxidizing materials, alkalies, reducing agents, reactive halogens, reactive metals

## \* \* \* Section 8 - Exposure Controls / Personal Protection \* \* \*

### Component Exposure Limits

#### Toluene (108-88-3)

**ACGIH:** 20 ppm TWA

**OSHA Final:** 200 ppm TWA

300 ppm Ceiling

**OSHA Vacated:** 100 ppm TWA; 375 mg/m<sup>3</sup> TWA  
150 ppm STEL; 560 mg/m<sup>3</sup> STEL

**NIOSH:** 100 ppm TWA; 375 mg/m<sup>3</sup> TWA  
150 ppm STEL; 560 mg/m<sup>3</sup> STEL

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Acetone (67-64-1)

**ACGIH:** 500 ppm TWA  
750 ppm STEL

**OSHA Final:** 1000 ppm TWA; 2400 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 750 ppm TWA; 1800 mg/m<sup>3</sup> TWA  
2400 mg/m<sup>3</sup> STEL (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors); 1000 ppm STEL

**NIOSH:** 250 ppm TWA; 590 mg/m<sup>3</sup> TWA

## Isopropyl alcohol (67-63-0)

**ACGIH:** 200 ppm TWA  
400 ppm STEL

**OSHA Final:** 400 ppm TWA; 980 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 400 ppm TWA; 980 mg/m<sup>3</sup> TWA  
500 ppm STEL; 1225 mg/m<sup>3</sup> STEL

**NIOSH:** 400 ppm TWA; 980 mg/m<sup>3</sup> TWA  
500 ppm STEL; 1225 mg/m<sup>3</sup> STEL

## Methyl ethyl ketone (78-93-3)

**ACGIH:** 200 ppm TWA  
300 ppm STEL

**OSHA Final:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL

**NIOSH:** 200 ppm TWA; 590 mg/m<sup>3</sup> TWA  
300 ppm STEL; 885 mg/m<sup>3</sup> STEL

## Isobutyl acetate (110-19-0)

**ACGIH:** 150 ppm TWA

**OSHA Final:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA

**NIOSH:** 150 ppm TWA; 700 mg/m<sup>3</sup> TWA

## Methyl isobutyl ketone (108-10-1)

**ACGIH:** 20 ppm TWA  
75 ppm STEL

**OSHA Final:** 100 ppm TWA; 410 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
75 ppm STEL; 300 mg/m<sup>3</sup> STEL

**NIOSH:** 50 ppm TWA; 205 mg/m<sup>3</sup> TWA  
75 ppm STEL; 300 mg/m<sup>3</sup> STEL

## Xylenes (o-, m-, p- isomers) (1330-20-7)

**ACGIH:** 100 ppm TWA  
150 ppm STEL

**OSHA Final:** 100 ppm TWA; 435 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 100 ppm TWA; 435 mg/m<sup>3</sup> TWA  
150 ppm STEL; 655 mg/m<sup>3</sup> STEL

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Methyl alcohol (67-56-1)

**ACGIH:** 200 ppm TWA

250 ppm STEL

Skin - potential significant contribution to overall exposure by the cutaneous route

**OSHA Final:** 200 ppm TWA; 260 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 200 ppm TWA; 260 mg/m<sup>3</sup> TWA

250 ppm STEL; 325 mg/m<sup>3</sup> STEL

Prevent or reduce skin absorption

**NIOSH:** 200 ppm TWA; 260 mg/m<sup>3</sup> TWA

250 ppm STEL; 325 mg/m<sup>3</sup> STEL

Potential for dermal absorption

## Ethyl alcohol (64-17-5)

**ACGIH:** 1000 ppm STEL

**OSHA Final:** 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA

**OSHA Vacated:** 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA

**NIOSH:** 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA

## Appropriate Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Use explosion proof equipment. Ensure compliance with applicable exposure limits.

## Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: [safety glasses](#), [gloves](#), [lab coat](#) or [apron](#).

### Eyes/Face Protection

Eye protection: Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

### Skin Protection

Where skin contact is likely, wear chemical impervious gloves; use of natural rubber (latex), polyvinyl chloride (PVC), neoprene, or equivalent is not recommended.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

### Respiratory Protection

Use NIOSH air-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of methanol may exceed applicable exposure limits. Otherwise, use NIOSH-certified P- or R-series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## \* \* \* Section 9 - Physical & Chemical Properties \* \* \*

<b>Appearance/Odor :</b>	Liquid, clear and colorless, solvent odor	<b>pH:</b>	Not applicable
<b>Boiling Point:</b>	56-172°C (133-342°F)	<b>Melting Point:</b>	Not available.
<b>Solubility (H<sub>2</sub>O):</b>	Slight.	<b>Specific Gravity:</b>	0.84 (water = 1)
<b>Density:</b>	7 LB/US gal (840 g/L)	<b>Octanol/H<sub>2</sub>O Coeff.:</b>	Log Pow = 2.73 (Based on toluene)
<b>Evaporation Rate:</b>	Not available.	<b>Molecular Weight:</b>	Not available.
<b>Odor Threshold:</b>	Not available.	<b>Auto Ignition Temperature:</b>	711°F (377°C) minimum (approximately)
<b>LFL:</b>	1 VOL% minimum (approximately)	<b>Flash Point:</b>	Less than 20°F (-7°C) Tag Closed Cup
<b>UFL:</b>	36 VOL% maximum (approximately)		
<b>Vapor Pressure:</b>	Vapor Pressure = 400 mm Hg @ 20°C		

### Other Property Information

No information is available.

## \* \* \* Section 10 - Stability & Reactivity \* \* \*

### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable at normal temperatures and pressure.

### Possibility of Hazardous Reactions

Will not polymerize.

### Conditions To Avoid

Avoid heat, sparks, or flame. Avoid contact with incompatible materials.

### Incompatible Materials

Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

### Hazardous Decomposition Products

None under normal temperatures and pressures., See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

## \* \* \* Section 11 - Toxicological Information \* \* \*

### Toxicity Data and Information

#### Component Analysis - LD50/LC50

##### Toluene (108-88-3)

Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h (vapor); Oral LD50 Rat 2600 mg/kg

##### Acetone (67-64-1)

Oral LD50 Rat 5800 mg/kg; Inhalation LC50 Rat 50100 mg/m<sup>3</sup> 8 h

##### Solvent naphtha (petroleum), light aliphatic (64742-89-8)

Dermal LD50 Rabbit 3000 mg/kg; Oral LD50 Mouse 5000 mg/kg

##### Isopropyl alcohol (67-63-0)

Dermal LD50 Rabbit 4059 mg/kg; Inhalation LC50 Rat 72600 mg/m<sup>3</sup> 4 h; Oral LD50 Rat 1870 mg/kg

##### Methyl ethyl ketone (78-93-3)

Dermal LD50 Rabbit 5000 mg/kg; Inhalation LC50 Rat 11700 ppm 4 h; Oral LD50 Rat 2483 mg/kg

##### Ethyl 3-ethoxypropanoate (763-69-9)

Oral LD50 Rat 5 g/kg

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## **Isobutyl acetate (110-19-0)**

Dermal LD50 Rabbit >17400 mg/kg; Oral LD50 Rat 15400 mg/kg

## **Methyl isobutyl ketone (108-10-1)**

Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 8.2 mg/L 4 h; Oral LD50 Rat 2080 mg/kg

## **Xylenes (o-, m-, p- isomers) (1330-20-7)**

Dermal LD50 Rabbit >4350 mg/kg; Inhalation LC50 Rat 29.08 mg/L 4 h (vapor); Oral LD50 Rat 3500 mg/kg

## **Methyl alcohol (67-56-1)**

Inhalation LC50 Rat 22500 ppm 8 h; Oral LD50 Rat 6200 mg/kg

## **Ethyl alcohol (64-17-5)**

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

## **Information on Likely Routes of Exposure**

### **Inhalation**

May cause respiratory tract irritation.

### **Ingestion**

Aspiration hazard. Harmful if swallowed, .

### **Skin Contact**

Causes skin irritation

### **Eye Contact**

Causes serious eye irritation

## **Immediate Effects**

Harmful if swallowed, skin irritation, eye irritation, central nervous system damage, central nervous system depression, kidney damage, liver damage, respiratory system damage, respiratory tract irritation, systemic toxicity, retina damage, aspiration hazard

## **Delayed Effects**

Mutagenic effects, cancer, reproductive effects, central nervous system damage, kidney damage, liver damage, peripheral nervous system damage, retina damage, respiratory system damage, blood disorders

## **Irritation/Corrosivity**

Eye irritation, skin irritation, respiratory tract irritation

## **Respiratory Sensitization**

No information available for the product.

## **Skin Sensitization**

No information available for the product.

## **Carcinogenicity**

### **Component Carcinogenicity**

#### **Toluene (108-88-3)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

#### **Acetone (67-64-1)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

#### **Isopropyl alcohol (67-63-0)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable))

#### **Methyl isobutyl ketone (108-10-1)**

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**IARC:** Monograph 101 [2013] (Group 2B (possibly carcinogenic to humans))

#### **Xylenes (o-, m-, p- isomers) (1330-20-7)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Ethyl alcohol (64-17-5)

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present (select carcinogen)

**IARC:** Monograph 100E [2012] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

## Germ Cell Mutagenicity

Possible mutagen

## Teratogenicity

No information available for the product.

## Reproductive Effects

Available data characterizes this substance as a reproductive hazard.

## Specific Target Organ Effects - Single Exposure

Central nervous system, kidneys, liver, respiratory system, systemic toxicity, retina

## Specific Target Organ Effects - Repeated Exposure

Central nervous system, kidneys, liver, peripheral nervous system, retina, respiratory system, blood

## Aspiration Hazard

This material is an aspiration hazard.

## Medical Conditions Aggravated by Exposure

Blood disorders, central nervous system disorders, eye disorders, kidney disorders, liver disorders, respiratory disorders, skin disorders, peripheral nervous system disorders, systemic disorders

## \* \* \* Section 12 - Ecological Information \* \* \*

### Ecotoxicity

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

### Component Analysis - Ecotoxicity - Aquatic Toxicity

#### Toluene (108-88-3)

##### Duration/Test/Species

96 Hr LC50 Pimephales promelas

96 Hr LC50 Pimephales promelas

96 Hr LC50 Oncorhynchus mykiss

96 Hr LC50 Oncorhynchus mykiss

96 Hr LC50 Oncorhynchus mykiss

96 Hr LC50 Lepomis macrochirus

96 Hr LC50 Oryzias latipes

96 Hr LC50 Poecilia reticulata

96 Hr LC50 Poecilia reticulata

96 Hr EC50 Pseudokirchneriella subcapitata

72 Hr EC50 Pseudokirchneriella subcapitata

48 Hr EC50 Daphnia magna

48 Hr EC50 Daphnia magna

##### Concentration/Conditions

15.22 - 19.05 mg/L [flow-through]

##### Notes

1 day old

12.6 mg/L [static]

5.89 - 7.81 mg/L [flow-through]

14.1 - 17.16 mg/L [static]

5.8 mg/L [semi-static]

11.0 - 15.0 mg/L [static]

54 mg/L [static]

28.2 mg/L [semi-static]

50.87 - 70.34 mg/L [static]

>433 mg/L

12.5 mg/L [static]

5.46 - 9.83 mg/L [Static]

11.5 mg/L

#### Acetone (67-64-1)

##### Duration/Test/Species

96 Hr LC50 Oncorhynchus mykiss

96 Hr LC50 Pimephales promelas

96 Hr LC50 Lepomis macrochirus

48 Hr EC50 Daphnia magna

48 Hr EC50 Daphnia magna

##### Concentration/Conditions

4.74 - 6.33 mL/L

6210 - 8120 mg/L [static]

8300 mg/L

10294 - 17704 mg/L [Static]

##### Notes

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Solvent naphtha (petroleum), light aliphatic (64742-89-8)

Duration/Test/Species	Concentration/Conditions	Notes
72 Hr EC50 <i>Pseudokirchneriella subcapitata</i>	4700 mg/L	

## Isopropyl alcohol (67-63-0)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	9640 mg/L [flow-through]	
96 Hr LC50 <i>Pimephales promelas</i>	11130 mg/L [static]	
96 Hr LC50 <i>Lepomis macrochirus</i>	>1400000 µg/L	
96 Hr EC50 <i>Desmodesmus subspicatus</i>	>1000 mg/L	
72 Hr EC50 <i>Desmodesmus subspicatus</i>	>1000 mg/L	
48 Hr EC50 <i>Daphnia magna</i>	13299 mg/L	

## Methyl ethyl ketone (78-93-3)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	3130 - 3320 mg/L [flow-through]	
48 Hr EC50 <i>Daphnia magna</i>	>520 mg/L	
48 Hr EC50 <i>Daphnia magna</i>	5091 mg/L	
48 Hr EC50 <i>Daphnia magna</i>	4025 - 6440 mg/L [Static]	

## Ethyl 3-ethoxypropanoate (763-69-9)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	62 mg/L [static]	
48 Hr EC50 <i>Daphnia magna</i>	970 mg/L	

## Methyl isobutyl ketone (108-10-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	496 - 514 mg/L [flow-through]	
96 Hr EC50 <i>Pseudokirchneriella subcapitata</i>	400 mg/L	
48 Hr EC50 <i>Daphnia magna</i>	170 mg/L	

## Xylenes (o-, m-, p- isomers) (1330-20-7)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	13.4 mg/L [flow-through]	
96 Hr LC50 <i>Oncorhynchus mykiss</i>	2.661 - 4.093 mg/L [static]	
96 Hr LC50 <i>Oncorhynchus mykiss</i>	13.5 - 17.3 mg/L	
96 Hr LC50 <i>Lepomis macrochirus</i>	13.1 - 16.5 mg/L [flow-through]	
96 Hr LC50 <i>Lepomis macrochirus</i>	19 mg/L	
96 Hr LC50 <i>Lepomis macrochirus</i>	7.711 - 9.591 mg/L [static]	
96 Hr LC50 <i>Pimephales promelas</i>	23.53 - 29.97 mg/L [static]	
96 Hr LC50 <i>Cyprinus carpio</i>	780 mg/L [semi-static]	
96 Hr LC50 <i>Cyprinus carpio</i>	>780 mg/L	
96 Hr LC50 <i>Poecilia reticulata</i>	30.26 - 40.75 mg/L [static]	
48 Hr EC50 water flea	3.82 mg/L	
48 Hr LC50 <i>Gammastrus lacustris</i>	0.6 mg/L	

## Methyl alcohol (67-56-1)

Duration/Test/Species	Concentration/Conditions	Notes
96 Hr LC50 <i>Pimephales promelas</i>	28200 mg/L [flow-through]	
96 Hr LC50 <i>Pimephales promelas</i>	>100 mg/L [static]	
96 Hr LC50 <i>Oncorhynchus mykiss</i>	19500 - 20700 mg/L [flow-through]	
96 Hr LC50 <i>Oncorhynchus mykiss</i>	18 - 20 mL/L [static]	
96 Hr LC50 <i>Lepomis macrochirus</i>	13500 - 17600 mg/L [flow-through]	

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## Ethyl alcohol (64-17-5)

### Duration/Test/Species

96 Hr LC50 Oncorhynchus mykiss  
96 Hr LC50 Pimephales promelas  
96 Hr LC50 Pimephales promelas  
48 Hr LC50 Daphnia magna  
48 Hr EC50 Daphnia magna

### Concentration/Conditions

12.0 - 16.0 mL/L [static]  
>100 mg/L [static]  
13400 - 15100 mg/L [flow-through]  
9268 - 14221 mg/L  
2 mg/L [Static]

### Notes

## Persistence and Degradability

No information available for the product.

## Bioaccumulation Potential

No information available for the product.

## Mobility in Soil

No information available for the product.

## Other Adverse Effects

No additional information is available.

## \* \* \* Section 13 - Disposal Considerations \* \* \*

## Disposal Methods

USEPA Waste Code D001, D035 Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product. Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

## \* \* \* Section 14 - Transport Information \* \* \*

## International Transportation Regulations

DOT Shipping Name: Paint related material

UN/NA #: UN1263 Hazard Class: 3 Packing Group: II

Required Label(s): FLAMMABLE LIQUID

TDG Shipping Name: PAINT RELATED MATERIAL

UN/NA #: UN1263 Hazard Class: 3 Packing Group: II

Required Label(s): FLAMMABLE LIQUID

## \* \* \* Section 15 - Regulatory Information \* \* \*

## Volatile Organic Compounds (As Regulated)

70 to 85 WT%; 5 to 6 LB/US gal (590 to 720 g/l)

As per 40 CFR Part 51.100(s).

Contains photochemically reactive solvent.

VOC Vapor Pressure = 400 mm Hg @ 20°C

Consult your state or local air district for location specific information.

## Federal Regulations

### SARA 302/304

### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

### SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactive: No

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## SARA Section 313

### Component Analysis

This product contains a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

**Toluene (108-88-3)**

1.0 % de minimis concentration

**Isopropyl alcohol (67-63-0)**

1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

**Methyl isobutyl ketone (108-10-1)**

1.0 % de minimis concentration

**Xylenes (o-, m-, p- isomers) (1330-20-7)**

1.0 % de minimis concentration

**Methyl alcohol (67-56-1)**

1.0 % de minimis concentration

## CERCLA

### Component Analysis

Based on the ingredient(s) listed in SECTION 3, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

**Toluene (108-88-3)**

1000 lb final RQ; 454 kg final RQ

**Acetone (67-64-1)**

5000 lb final RQ; 2270 kg final RQ

**Methyl ethyl ketone (78-93-3)**

5000 lb final RQ; 2270 kg final RQ

**Isobutyl acetate (110-19-0)**

5000 lb final RQ; 2270 kg final RQ

**Methyl isobutyl ketone (108-10-1)**

5000 lb final RQ; 2270 kg final RQ

**Xylenes (o-, m-, p- isomers) (1330-20-7)**

100 lb final RQ; 45.4 kg final RQ

**Methyl alcohol (67-56-1)**

5000 lb final RQ; 2270 kg final RQ

## TSCA Inventory

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

### Component Analysis

Component	CAS #	TSCA
Toluene	108-88-3	Yes
Acetone	67-64-1	Yes
Solvent naphtha (petroleum), light aliphatic	64742-89-8	Yes
Isopropyl alcohol	67-63-0	Yes
Methyl ethyl ketone	78-93-3	Yes
Ethyl 3-ethoxypropanoate	763-69-9	Yes
Isobutyl acetate	110-19-0	Yes
Methyl isobutyl ketone	108-10-1	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes
Methyl alcohol	67-56-1	Yes
Ethyl alcohol	64-17-5	Yes

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	MA	MN	NJ	PA	CA
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes
Methyl ethyl ketone	78-93-3	Yes	Yes	Yes	Yes	Yes
Isobutyl acetate	110-19-0	Yes	Yes	Yes	Yes	Yes
Methyl isobutyl ketone	108-10-1	Yes	Yes	Yes	Yes	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes
Methyl alcohol	67-56-1	Yes	Yes	Yes	Yes	Yes
Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes

**THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.**

## Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

## Component Analysis

Component	CAS #	CAN
Toluene	108-88-3	DSL
Acetone	67-64-1	DSL
Solvent naphtha (petroleum), light aliphatic	64742-89-8	DSL
Isopropyl alcohol	67-63-0	DSL
Methyl ethyl ketone	78-93-3	DSL
Ethyl 3-ethoxypropanoate	763-69-9	DSL
Isobutyl acetate	110-19-0	DSL
Methyl isobutyl ketone	108-10-1	DSL
Xylenes (o-, m-, p- isomers)	1330-20-7	DSL
Methyl alcohol	67-56-1	DSL
Ethyl alcohol	64-17-5	DSL

## Canadian WHMIS Information

B2, D1A, D2A, D2B

## Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

<b>Toluene (108-88-3)</b>	1 %
<b>Acetone (67-64-1)</b>	1 %
<b>Isopropyl alcohol (67-63-0)</b>	1 %
<b>Methyl ethyl ketone (78-93-3)</b>	1 %
<b>Isobutyl acetate (110-19-0)</b>	1 %
<b>Methyl isobutyl ketone (108-10-1)</b>	1 %
<b>Methyl alcohol (67-56-1)</b>	1 %
<b>Ethyl alcohol (64-17-5)</b>	0.1 %

# Safety Data Sheet

Material Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

SDS ID: 82410

## \* \* \* Section 16 - Other Information \* \* \*

### Revision Information

2016-08-16 update to MIBK concentration range.

### Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

### Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplier to the user.

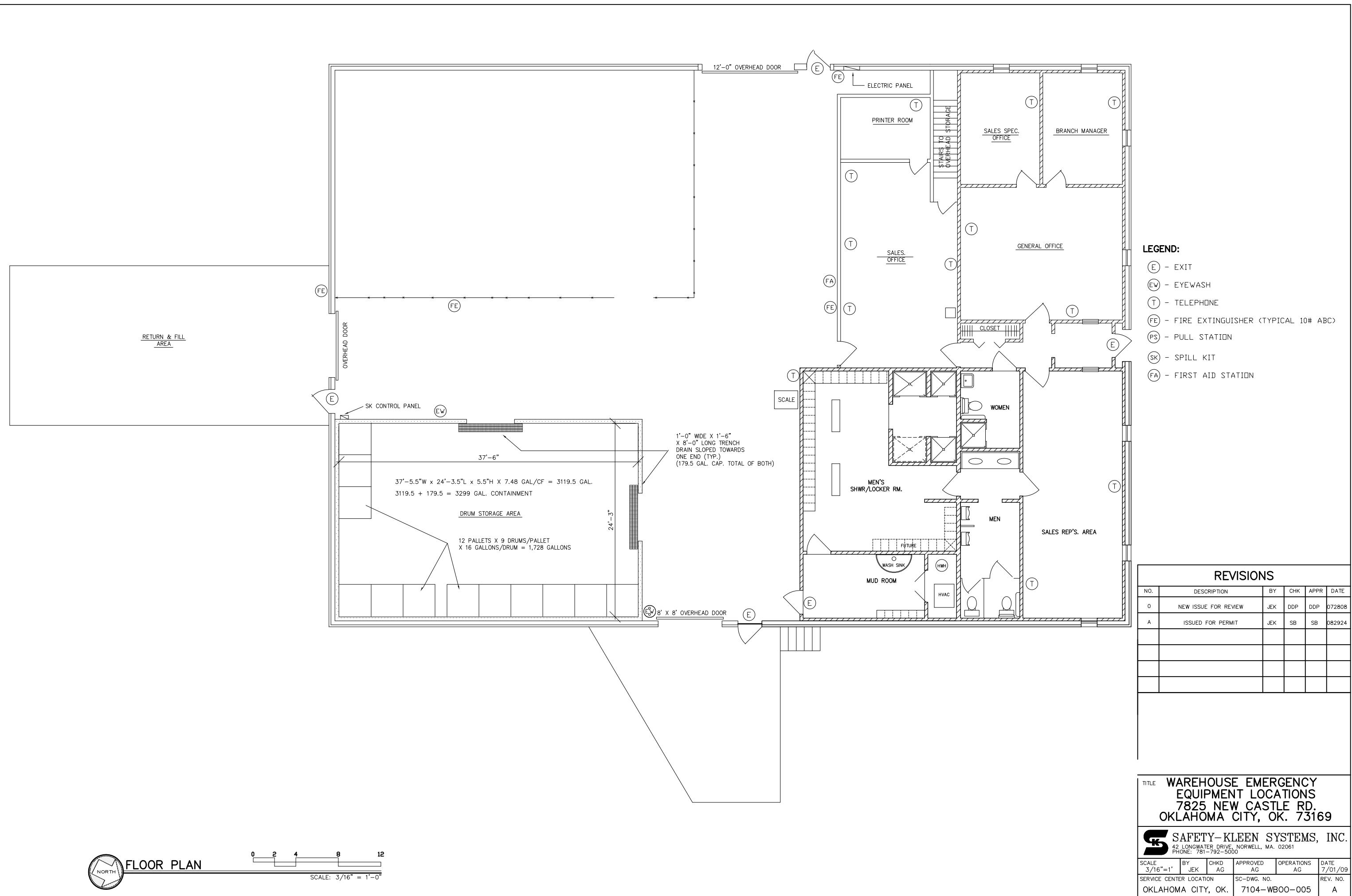
End of Sheet 82410

## **EXAMPLE EMPLOYEE FUNCTIONS DURING AN EMERGENCY**

## **EXAMPLE EMPLOYEE FUNCTIONS DURING AN EMERGENCY**

<u>Title</u>	<u>Emergency Function</u>
Branch Manager	Emergency Coordinator Notify Safety-Kleen Environmental Response Coordinators Apply First Aid Notify Emergency Agencies, if necessary
Sales Representatives	Retain, contain, or slow the flow of released material Shut off electricity
Material Handler	Retain, contain, or slow the flow of released material

## **EMERGENCY EQUIPMENT PLAN**



## **EXAMPLE LIST OF EMERGENCY EQUIPMENT**

<b>Equipment</b>	<b>Location</b>	<b>Description</b>	<b>Capabilities</b>
Gloves	Warehouse	Neoprene, Latex & Leather	Provide hand protection from cuts, splashes and exposure to contaminants
Safety Glasses	Warehouse	Glasses, goggles, face masks	Eye and splash protection
Aprons	Warehouse	Front coverage aprons	Prevent splashes to clothing
Eyewash/Shower Combo Eyewash	Areas with potential contamination to eyes (warehouse, return and fill, first aid kits)	Hard plumbed unit Portable unit Bottled eye wash	Purges contaminants from eyes and body
Fire Extinguisher	Office areas, warehouses, return and fill, flam shed, tank Farm, all trucks	10 & 20 lb units	ABC rated for wood, paper, electrical and solvent fires
Absorbent & Spill Dry Material	Warehouse, tank farm, route trucks	Booms, pads, granular absorbent, vermiculite	Capable of absorbing liquid spills of aqueous & petroleum type spills
Respirators	Issued to individual employees	Half face or full face	Protection from exposure to organic solvents, acids gases and ammonia
Telephones	Warehouse and office	Standard office phone & company-supplied cell phones	Allows employees to summon outside assistance in case of emergency
Emergency Alarm	Return and Fill	Red push button alarm on dock	Alarm emits a loud siren, audible to surrounding area and inside office, to notify of a problem in the return and fill
Brooms, Buckets, Mops, Portable Pump and Wet/Dry Vacuum	Warehouse		Used to contain and pick-up spills
First Aid Kits	Warehouse All trucks		Provide medical care for minor injuries



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Product	Qty	Unit	Price
Priority Mail	1		\$0.00
Flat Rate Env			
Oklahoma City, OK 73179			
Flat Rate			
Expected Delivery Date			
Mon 09/23/2024			
Tracking #:			
9510-8150-3600-4264-3174-92			
Insurance			\$0.00
Up to \$100.00 included			\$0.00
Signature			\$4.00
Confirm			\$4.00
Total			\$12.00
Priority Mail	1		\$0.00
Flat Rate Env			
Oklahoma City, OK 73101			
Flat Rate			
Expected Delivery Date			
Mon 09/23/2024			
Tracking #:			
9510-8150-3600-4264-3175-86			
Insurance			\$0.00
Up to \$100.00 included			\$0.00
Signature			\$4.00
Confirm			\$4.00
Total			\$12.00
Priority Mail	1		\$0.00
Flat Rate Env			
Oklahoma City, OK 73102			
Flat Rate			
Expected Delivery Date			
Mon 09/23/2024			
Tracking #:			
9510-8150-3600-4264-3175-86			
Insurance			\$0.00
Up to \$100.00 included			\$0.00
Signature			\$4.00
Confirm			\$4.00
Total			\$12.00
Priority Mail	1		\$0.00
Flat Rate Env			
Oklahoma City, OK 73112			
Flat Rate			
Expected Delivery Date			
Mon 09/23/2024			
Tracking #:			
9510-8150-3600-4264-3175-86			
Insurance			\$0.00
Up to \$100.00 included			\$0.00
Signature			\$4.00
Confirm			\$4.00
Total			\$12.00
Priority Mail	1		\$0.00
Flat Rate Env			
Los Angeles, CA 90049			
Weight: 0.10 lb 0.00 oz			
Acceptance Date:			
Fri 09/20/2024			
Tracking #:			
9402-0108-0060-0076-2421-22			
Total			\$12.00

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**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 5**

**PERSONNEL TRAINING**

**PERSONNEL TRAINING****ABSTRACT**

**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 facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.

**TIME OF TRAINING**

<b>Job Title</b>	<b>Prior to Starting Work</b>	<b>On The Job</b>	<b>Annually</b>	<b>When Regulations or Procedures Change</b>
Branch General Manager	X	X	X	X
Branch Administrator		X	X	X
Sales/Service Representatives	X	X	X	X
Warehouse Employees	X	X	X	X

## 5.0 PERSONNEL TRAINING

### 5.1 OUTLINE OF TRAINING PROGRAM [40 CFR 270.14(b)(12)]

Each employee has received adequate training to operate and maintain the facility safely, and to understand hazards unique to his or her job assignments. Appendix G contains information on Service Center training outlines, and example training record form.

### 5.2 ORGANIZATION STRUCTURE AND JOB DESCRIPTIONS [40 CFR 264.16(d)]

Environmental compliance and training of branch employees is the responsibility of the Branch General Manager. The corporate regulatory compliance department, in turn, provides a training program to be executed annually. The training program is directed by personnel trained in hazardous waste management procedures and includes instruction on hazardous waste management for facility personnel. Appendix G contains example job descriptions, example training matrices, and an example training record form. These forms are subject to change and are included as examples only. Many training courses are completed electronically and records will also be maintained electronically.

#### 5.2.1 Branch General Manager

The Branch General Manager is responsible for the business and environmental operations at the Service Center. The branch sales and service representatives, administrators, and warehouse employees report to the Branch General Manager. The Branch General Manager or his/her designee provides the training and materials necessary for the branch employees to execute their duties. With respect to environmental compliance, the Branch General Manager must

- a. Keep the facility clean and orderly;
- b. Execute, or designate an employee to execute, the daily inspection, keep a written log, and remediate any problems;
- c. Know the potential hazards of the material and wastes handled at the site;
- d. Identify potential spill and fire sources and be able to execute the Contingency Plan;
- e. Inform all employees of their environmental responsibilities;

- f. Notify the proper authorities during an emergency, remediate the situation to the best of their abilities, and submit necessary reports with the company;
- g. Maintain all environmental records (such as manifests, training records, and spill reports) on file at the facility.

### **5.3 DESCRIPTION OF THE TRAINING PROGRAM [40 CFR 264.16(a)(1)J**

Employee training is accomplished using classroom, electronic (i.e. video, e-Learning), written, and on-the-job methods. The Training Department prepares a training program for employees and the Service Center personnel provide documentation that the program has been executed.

An employee is trained prior to starting, or as soon as he or she begins working (depending on his or her position) and annually thereafter. The EHS Department ensures that the Branch General Manager or his/her designate has received adequate training to train all branch personnel. Appendix G contains an example outline of the training program, which demonstrates that facility personnel are trained in hazardous waste management procedures.

#### **5.3.1 Training of New Branch General Managers**

New Branch General Managers are trained before they begin their new positions. This training occurs on site, on-the-job, in off-site classroom training, electronic (i.e. video, e-Learning), written, and on-the-job methods. While being trained, a new Branch General Manager reviews all environmental records and learns the recordkeeping requirements. These records include manifests, personnel records, training records, facility inspection records, and spill reports.

The training culminates in additional training at the direction of an environmental professional. The training consists of an introduction to environmental law and a review of the Part B permit, including the Waste Analysis Plan, Preparedness and Prevention Plan, Contingency Plan, Training Plan, and Closure Plan. Additional time is spent reviewing past environmental compliance at the Branch General Manager's facility. Regulations unique to the state are discussed as well.

### **5.3.2 Training of New Branch Administrators**

Branch administrators are trained in the proper recordkeeping procedures as soon as they begin working for Safety-Kleen. While they are not usually responsible for preparing the documentation, they must check it for accuracy and completeness and then process or file it as required. Additional training is overseen by the Branch General Manager or his/her designee and is completed within six months of starting. The training includes some of the items listed in the Example Training Plan that may be applicable to the branch administrator's job. In addition, the Contingency Plan must be reviewed with the Branch General Manager.

### **5.3.3 Training of New Sales and Service Representatives**

New representatives are introduced to the Part B Permit which includes: Waste Analysis Plan, Preparedness and Prevention Plan, Contingency Plan, etc. A representative may also be trained as a designate for performing the facility inspection. Additional training is in the form of classroom, electronic (**i.e.** video, a-Learning), written, and on-the-job methods. The Contingency Plan must be reviewed before the Representative formally begins the new position. Items such as those applicable in the Regulatory Training Matrix must be covered within six months of hire.

#### **5.3A Training of New Material Handlers**

A material handler is trained to maintain the Service Center and assist the other branch employees in their tasks. A material handler *may* also be trained as the designate for performing the *daily* inspection. Additional training may be in the form of videotape presentations, classroom, electronic (*i.e.* video, a-Learning}, written, and on-the-job methods. The Contingency Plan must be reviewed with the Branch General Manager before the material handler formally begins his/her new position, and annually thereafter. Items such as those listed in the Example Training Plan must be explained within six months of starting.

#### **5.3.5 Annual Training (40 CFR 264.16{c})**

On an annual basis, employees are trained using a program prepared and updated by the EHS Department. It includes updates on environmental regulations, an in-depth review of the Contingency Plan, and a review of RCRA inspection criteria.

All Service Center employees will review annually, training items such as those listed in the Example Training Plan outline for branch employees. The annual training may vary from the topics listed *in* the Example Training Plan outline. This review may be in the form of videotapes and classroom instruction, electronic (i.e. video, a-Leaming), written, and on-the-job methods. It will include discussion of the storage facility permit application. The EHS Department issues periodic memoranda on changes in environmental regulations, which all Service Center personnel must read and discuss.

#### **5.4 Training RECORDS [40 CFR 264.1&(d)]**

All employee regulatory training must be documented. Records of current employees will be kept at the facility until closure. Training documentation will include, at a minimum, the required information listed on the example record forms listed in Appendix G. Some training documentation will be maintained electronically.

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 6**

**CLOSURE PLAN**

**AND**

**COST ESTIMATES**

## CLOSURE PLAN

### ABSTRACT

LOCATION ADDRESS: Safety-Kleen Systems, Inc.  
7528 Newcastle Road  
Oklahoma City, OK 73169

U.S. EPA ID. No: OKD 980 878 474

#### WASTE UNITS TO UNDERGO CLOSURE:

- a. Tank Storage: One 16,800 gallon aboveground storage tank for spent parts washer solution and spent aqueous solution.
- b. Container Storage: One 500 square foot area for container storage in the warehouse with a storage capacity of 1728 gallons.
- c. Return and Fill Station: The location of this unit is shown on the Site Plan and consists of two drum washers with a combined capacity of 750 gallons.
- d. Metal Shelter: The location of this structure is shown on the Site Plan. It has a storage capacity of 2,184 gallons.

**6.0 CLOSURE PLAN (40 CFR 270.14(b)(13) and 40 CFR 264 SUBPART G]****6.1 PURPOSE**

The Oklahoma City Service Center operates as a storage facility for hazardous wastes and must be closed in accordance with the closure requirements of 40 CFR 264, Subpart G. Closure of the facility will be carried out in accordance with the steps in this plan. Table 1 contains an estimated cost. The closure cost will be updated at the beginning of each calendar **year**. Safety-Kleen will remediate all hazardous wastes from the facility to a level that is determined to be protective of human health and the environment. Hazardous wastes will be stored in appropriate containers and not in waste piles or landfills, therefore, no post closure maintenance is planned. Upon completion of closure activities, the need for post-closure maintenance will be minimized or eliminated.

**6.2 ABOVEGROUND TANKS AND ASSOCIATED PIPING [40 CFR 264.197(a)]**

To safely clean and decommission the aboveground storage tanks:

- a. Remove the remaining material from the tank and return the materials to the Recycle Center for reclamation.
- b. Provide access to the tank
- c. Rinse, scrape and squeegee the tank interior, removing all residual waste material and rinsate
- d. Disconnect and decontaminate all appurtenant piping and pumping equipment
- e. Remove tank and appurtenant equipment and reuse or sell as scrap
- f. Clean the concrete diking and stab. Alternately, Safety-Kleen may want to leave the tanks and concrete diking and slab in place following closure as a RCRA permitted facility
- g. If necessary, backfill all excavations with clean fill materials
- h. Transport and dispose of all waste material generated during the project

**6.2.1 Removal of Waste Material and Opening of the Tank**

To safely open the tank and remove the waste material:

- a. Pump the waste materials out of the tank using a pump, vacuum truck, or similar equipment and transport to a Safety-Kleen Recycle Center or other properly permitted facility for reclamation.
- b. To gain access to aboveground tanks, use the man way at the top of the tank, or on the side of the tank. Depending on the type of opening and the condition of the equipment, a variety of tools may be used to open the man way. Special care will be exercised to minimize spark generation when working on the tank.
- c. Prior to entering the tank, personnel will have appropriate respiratory equipment and protective clothing. Once the tanks have been opened, they must be provided with positive ventilation. The tanks will then be inspected to determine the approximate quantity and physical conditions of any remaining waste material.

#### **6.2.1 Removal of Residual Waste and Cleaning of Tank**

To safely remove the residual waste and clean the tank:

- a. Before removing any residual waste from the tank, all piping and appurtenant equipment associated with the parts washer solvent tank will be flushed with a detergent solution.
- b. The method used to remove residual waste from the tank will depend on the physical properties and quantities of the material. Prior to any person entering the tank, an effort will be made to remove as much liquid and sediment as possible.
- c. Subsequent to vacuuming the majority of the material from the tanks, it may be necessary to use a high-pressure wash system using a detergent solution to rinse residual material from the walls, roof, and floor of the tank. The evacuated material and the rinse solution will be returned to a Recycle Center for reclamation. The quantity of wash fluid used will be kept to a minimum in order to limit the amount of waste material.
- d. Storage tanks are considered confined spaces per OSHA. Confined space entry requires special procedures. These procedures will be specified in the site health and safety plan prepared by the independent engineer.

### 6.2.3 Removal of the Tank

To safely remove the tank:

- a. Disconnect and decontaminate all appurtenant piping and pumping equipment.
- b. The vessel shall be removed and reused or cut up and sold as scrap. The tanks and piping unfit for reuse shall be removed and disposed of at a properly permitted landfill or recycled as scrap. Verification of destruction will be provided. The rinsate will be collected and sent to a Safety-Kleen Recycle Center or properly permitted treatment or disposal facility for treatment.
- c. The concrete diking will be cleaned with a high-pressure water detergent solution. A sample of the final rinse water will be collected and analyzed for volatile organic compounds to confirm the cleanliness of the diking. Soil samples beneath the concrete will be collected only if significant, fully-penetrating, unsealed cracks are evident in the concrete slab. All soil samples will be analyzed for mineral spirits, volatile organic compounds, and characteristic for toxicity due to cadmium, chromium, and lead using TCLP protocol. If contamination is indicated, a soil study will be done to determine the extent. Over excavation of the soil or other approved method will be performed to eliminate the contamination. Soil samples will be collected and analyzed after cleanup to insure decontamination has been achieved.
- d. Inspect the excavation and backfill with clean fill materials and grade to ground level.

## 6.3 CONTAINER STORAGE AREA IN WAREHOUSE (CSA) (40 CFR 264.178)

The CSA is used for the storage of containers that may contain spent parts washer solvent, aqueous parts cleaner waste, spent immersion cleaner, dry cleaning waste, dumpster sediment, paint waste, used antifreeze, photographic imaging waste, spent industrial fluids, used oil and various transfer wastes. At closure, the containers will be removed and transported to an appropriate licensed hazardous waste management facility after proper packaging, labeling, and manifesting.

The concrete floor and spill containment sump will be cleaned with a detergent solution. The final rinsate will be analyzed for volatile organic compounds. All rinsate wastes generated in the container storage area will be transported to a licensed hazardous waste management facility.

#### **6.4 CONTAINER STORAGE AREA IN METAL SHELTER (40 CFR 264.178)**

The metal shelter is used for the storage of containers that may contain spent parts washer solvent, aqueous parts cleaner waste, spent immersion cleaner, dry cleaning waste, dumpster sediment, paint waste, used antifreeze, photographic imaging waste, spent industrial fluids, used oil and various transfer wastes. At closure, the containers will be removed and transported to an appropriate licensed hazardous waste management facility after proper packaging, labeling, and manifesting.

The shelter will be thoroughly cleaned with a detergent solution. The final rinsate will be analyzed for volatile organic compounds. Rinsing and washing will continue until these levels are found to be below detection limits. All rinsate wastes generated in the container storage area will be transported to a licensed hazardous waste management facility.

The shelter will be reused by the Company or recycled as scrap metal.

#### **6.5 SOLVENT RETURN AND FILL STATION**

The return and fill station is used to collect and return the spent parts cleaner solvent and spent aqueous solutions to the waste storage tank. Closure of the return and fill station will be made prior to the cleaning and removal of the storage tank. At closure, any sediment in the drum washers will be removed and containerized, labeled, and manifested for proper treatment and/or disposal through a Safety-Kleen recycle center.

The drum washers and the dock area will be thoroughly rinsed with a detergent solution. The rinsate will be discharged through the appurtenant piping system into the storage tanks, will be subjected to a separate closure procedure as described earlier. The final rinsate must be analyzed for volatile organic compounds. The clean drum washers and dock structure may be reused by Safety-Kleen or disposed at a properly permitted landfill or used as scrap metal.

#### **6.6 DECONTAMINATION OF CLEANUP EQUIPMENT (40 CFR 264.116)**

All equipment used for the closure of the facility will be properly decontaminated prior to its reuse. Small equipment (such as mops, rags, etc.) and their residue that cannot be reused will be transported to a licensed hazardous waste management facility.

## 6.7 FACILITY CLOSURE SCHEDULE AND CERTIFICATION (40 CFR 264.113 & 115)

Within 90 days of receiving the final volume of hazardous wastes, Safety-Kleen will remove all hazardous wastes from the site in accordance with the approved closure plan. The Oklahoma Department of Environmental Quality may approve a longer period if Safety-Kleen demonstrates that the activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete or the following requirements are met:

- a. The facility has the capacity to receive additional wastes;
- b. There is a likelihood that an entity other than Safety-Kleen will recommence operation of the site; and/or
- c. Closure of the facility is incompatible with continued operation of the site. In this case, Safety-Kleen will take all steps necessary to prevent threats to human health and the environment.

Safety-Kleen will complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes.

When closure is completed, Safety-Kleen shall submit to the DEQ, certification , both by the operator and by an independent registered professional engineer that the facility has been closed in accordance with the approved closure plan.

## CLOSURE SCHEDULE

Closure Activity	Calendar Days
1. End operation of facility; commence closure	
2. Removal and disposal of final waste inventory	
3. Decontaminate container storage areas and dispose of wash water	
4. Decontaminate storage tank, piping, and appurtenant equipment and dispose of wash water	
5. Remove tank, appurtenant piping and equipment and contaminated materials and backfill excavation	
6. Dismantle and scrap storage tank, piping, and appurtenant equipment	
7. Compile closure certification and notify USEPA/ODEQ of closure completion	

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, (Oklahoma City, OK

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, [Oklahoma City, OK]

11/28/2023

	Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal
<b>1. INVENTORY REMOVAL</b>					
<u>Assumptions</u>					
- One waste mineral spirits tanks is full (16,800 gallons)					
- Maximum capacity of 750 gallons in R/F drum washers. 750 gallons added to waste mineral spirits tank quantity					
- One CSA will be closed with maximum capacity of 1,795 gallons = 32 - 55 gallon drums.					
- One Flammable Materials Storage Shelter with maximum capacity of 2184 gallons = 40 -55-gallon drums					
<u>Subcontractor Costs</u>					
- Transfer tank contents to tankers					
Tank Capacity				17550	
Work Rate to Unload Tank Capacity				0.0003	\$0
Total Hours to Unload				5.3	
Labor and equipment to unload (PPE Level D)		Labor/equipment	\$175.95	5.3	\$926
- Transport waste mineral spirits to a TSD for treatment/disposal					
Assumes 3 tanker trailers required to remove 16,000 gallons (6,000 gallons max each load)					
Estimated cost per mile = \$5.64/mile					
Estimated mileage = 300 miles		Transport 3 trailers x 300 miles	\$5.64	900	\$5,076
Estimated disposal/treatment cost (per gallon - low cost based on suitability for fuel)		TSD @ \$0.45/gallon	\$0.450	17550	\$7,898
- Transfer drums from CSA to trucks					
Labor/Equipment (PPE Level D)		Labor/equipment per drum	\$3.57	32	\$114
- Transfer drums from Flammable Materials Storage Shed to trucks with forklift					
Labor/Equipment (PPE Level D)		Labor/equipment per drum	\$3.57	40	\$143
- Transport drums to TSD for Treatment/Disposal					
Total Number of Drums				72	
Total Number of Trucks Required to Transport Drums (84 per truck max)				1	
Estimated cost per mile = \$5.64/mile					
Estimated mileage = 300 miles		Transport 1 trailer(s) x 300 miles	\$5.64	300	\$1,692
Estimated disposal/treatment cost (per drum - low cost based on suitability for fuel)		TSD @ \$90/drum	\$90	72	\$6,480
Activity 1. Subtotal					\$22,329
<b>2. STORAGE TANK DECONTAMINATION</b>					
<u>Assumptions:</u>					
- The tank, piping and appurtenant equipment are decontaminated and remain in place					
- Rinsate sampling necessary because the tank will remain in place. Assumes 1 rinsate sample per tank.					
- Includes decontamination of the containment area					
- Assumes containment area to remain in place following decontamination					
- Assumes 1 rinsate sample required to leave containment in place and assumes 2 soil samples required					
<u>Prime Contractor Costs</u>					
- Costs for oversight and engineers inspection included in Closure Certification Activity below					
- Collect Rinsate Samples (1 per tank and 1 per containment)					
Work Rate for Sampling (per sample)			0.5000		
Number of Samples			2		
Labor and equipment per work hour (PPE Level D)		Labor/equipment	\$91.88	1.00	\$92
- Drilling for Soil Samples (2.5 in boring to 1 ft each)					
Work Rate for Drilling (per foot)			0.3050		
Number of Feet (subslab sample depth = 1 foot each)			2		
Labor and equipment per work hour (PPE Level D)		Labor/equipment	\$146.29	0.61	\$89
- Collect 2 Soil Samples					
Work Rate for Sampling (per sample)			0.5000		
Number of Samples			2		
Labor and equipment per work hour (PPE Level D)		Labor/equipment	\$91.88	1.00	\$92
<u>Subcontractor Costs</u>					
- Decontaminate one waste AST, piping and appurtenant equipment					
Work Rate to Pressure Wash 1 sq ft			0.0405		\$0
Area of Tanks to be decontaminated			920.0		
Labor and equipment for tank decon (PPE Level C)		Labor/equipment	\$97.23	37	\$3,623
- Decontaminate Tank Containment Area					
Work Rate to Pressure Wash 1 sq ft			0.0405		
Total Area of Containment (includes walls and floor)			1564		
Labor and equipment for CSA decon (PPE Level D)		Labor/equipment	\$65.77	63	\$4,166
<u>Laboratory Subcontractor Costs</u>					
- Analyze rinsate sample(s) from tank and containment area for VOCs		VOCs @ \$189/sample			
		Total per sample cost	\$189	2	\$378

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, [Oklahoma City, OK]

11/28/2023

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal
- Analyze soil sample(s) from containment area for VOCs, TPH and TCLP metals	VOCs @ \$189/sample TPH @ \$61/sample 8 RCRA TCLP Metals @ \$569/sample Total per sample cost	\$819	2	\$1,638
	Activity 2. Subtotal			\$10,078
3. DECONTAMINATE THE RETURN/FILL STATION				
<u>Assumptions:</u>				
- 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 required from each drum washer to remain in place or sent offsite for reuse (VOCs only)				
- Square footage used for decontamination includes containment, dock and drum washer units				
<u>Prime Contractor Costs</u>				
- Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Samples (1 per drum washer)				
Work Rate for Sampling (per sample)				0.5000
Number of Samples				2
Labor and equipment per work hour (PPE Level D)				Labor/equipment \$91.88 1.00 \$92
<u>Subcontractor Costs</u>				
- Decontaminate waste AST, piping and appurtenant equipment				
Work Rate to Pressure Wash 1 sq ft				0.0405 \$0
Area of Tanks to be decontaminated				1000.0
Labor and equipment for tank decon (PPE Level C)				Labor/equipment \$97.23 41 \$3,938
<u>Laboratory Subcontractor Costs</u>				
- Analyze rinsate sample(s) from drum washers for VOCs				
VOCs @ \$189/sample				
Total per sample cost				\$189 2 \$378
Activity 3. Subtotal				\$4,408
4. DECONTAMINATE CONTAINER STORAGE AREA				
<u>Assumptions:</u>				
- One CSA with total capacity of 1,795 gallons/500 sq ft				
- 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				
- Any ramps leading into the storage areas (if present) will also be decontaminated.				
- Assumes 1 rinsate sample from each CSA required.				
<u>Prime Contractor Costs</u>				
- Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Samples (1 per CSA)				
Work Rate for Sampling (per sample)				0.5000
Number of Samples				1

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, [Oklahoma City, OK]

11/28/2023

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	0.50	\$46
<b><u>Subcontractor Costs</u></b>				
- Decontaminate CSA(s)				
Work Rate to Pressure Wash 1 sq ft			0.0405	\$0
Total Area of Permitted CSA(s) to be decontaminated			500.0	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	20	\$1,332
<b><u>Laboratory Subcontractor Costs</u></b>				
- Analyze 1 rinsate sample(s) from each CSA for VOCs	VOCs @ \$189/sample			
	Total per sample cost	\$189	2	\$378
Activity 4. Subtotal				<u>\$1,756</u>

## 5. 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
- Square footage used for decontamination includes containment

Prime Contractor Costs

- Costs for oversight and engineers inspection included in Closure Certification Activity below

- Collect Rinsate Samples (1 per Flam Shed)				
Work Rate for Sampling (per sample)			0.5000	
Number of Samples			1	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	0.50	\$46

Subcontractor Costs

- Decontaminate structure, grating and containment				
Work Rate to Pressure Wash 1 sq ft			0.0405	\$0
Total Area of Permitted Flam Shed to be decontaminated			800.0	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	32	\$2,131

Laboratory Subcontractor Costs

- Analyze 1 rinsate sample(s) from each shelter for VOCs	VOCs @ \$189/sample			
	Total per sample cost	\$189	1	\$189

Activity 5. Subtotal

\$2,366

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, [Oklahoma City, OK]

11/28/2023

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal
6. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				
<u>Assumptions:</u>				
- Amount of decon wash water generated derived from previous closure experience. Quantity based on approximately 0.8 gal/ sq ft for tank systems and 0.1 gal/sq ft for containment area floors				
- 500 gallons wash water generated from decontamination of waste tanks (approximately 500 gallons per tank, including residual sludge) + 250 gallons from the containment = 14 drums				
- 450 gallons wash water generated from decontamination of the return/fill structure, and 250 gallons for the containment = 700 gallons = 13 drums				
- 250 gallons of wash water generated from decontamination of CSAs (250 gallons per CSA) = 5 drums				
- <b>480 gallons of wash water generated from decontamination of Flammable Materials Storage Shelter = 9 drums</b>				
- PPE, plastic sheeting, consumables, debris contained in 5 drums				
- Purchase 55-gallon drums	Drums @ \$83 each	\$83	<b>46</b>	\$4,200
<u>Subcontractor Costs</u>				
- Transfer drums from CSA to trucks Labor/Equipment (PPE Level D)	Labor/equipment per drum	\$3.57	<b>46</b>	\$164
- Transport drums to TSD for Treatment/Disposal Assumes 1 truck to transport 46 drums (84 per truck max) Estimated cost per mile = \$5.64/mile Estimated mileage = 300 miles Estimated disposal/treatment cost (per drum - low cost based on lack of hazardous constituents) Estimated disposal/treatment cost for PPE drums (assumed haz to landfill)	Transport 1 trailer x 300 miles TSD @ \$90/drum TSD (based on ETC rate)	\$5.64 \$90 \$250	300 <b>41</b> 5	\$1,692 \$3,690 \$1,250
Activity 6. Subtotal				\$10,996
7. CLOSURE CERTIFICATION				
<u>Assumptions:</u>				
- Cost Pro Unit Rate per unit to be closed is \$4,118				
- Unit rate includes engineer inspection and decontamination oversight of each unit				
<u>Prime Contractor Costs</u>				
- Oversee and certify closure per unit times number of units	Project Manager/Engineer	\$4,118	<b>5</b>	\$20,590
Activity 7. Subtotal				\$20,590
COST ESTIMATE ACTIVITIES SUMMARY				
1. INVENTORY REMOVAL				\$22,329
2. STORAGE TANK DECONTAMINATION				\$10,078
3. DECONTAMINATE THE RETURN/FILL STATION				\$4,408
4. DECONTAMINATE CONTAINER STORAGE AREA				\$1,756
5. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER				\$2,366
6. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$10,996
7. CLOSURE CERTIFICATION				\$20,590
CLOSURE COST ESTIMATE				\$72,522
TOTAL WITH INFLATION ADDED FROM 2010 TO CURRENT YEAR (updated for inflation from the latest version of CostPro (6.0) in 2009)				\$92,633
CONTINGENCY (20%)				\$18,527
TOTAL CLOSURE COST ESTIMATE WITH CONTINGENCY				\$111,159

## Notes:

- All unit rates obtained from Cost Pro version 6.0 and includes the following:
- Transportation @ \$5.64/mile and 300 mile trip
- Disposal for bulk liquids \$0.45/gallon based on suitability of waste mineral spirits as fuel
- Disposal for CSA liquids \$90/drum based on suitability of drummed waste streams as fuel

Table 1. Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, [Oklahoma City, OK]

11/28/2023

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal
- Disposal of decon wash water \$90/drum based on lack of hazardous constituents in waste (soapy water)				
-Subcontractor Decontamination Rate for tanks and return/fill based on PPE Level C				
-Subcontractor decontamination rates for CSAs and Flam Shed (if applicable) based on PPE Level D				
-Prime Contractor Rates based on hourly rate for rinsate sampling, drilling and soil sample collection				
-Lab subcontractor rates for analysis of rinsate and soil samples acquired from lookup tables				
-Closure Certification Activity includes prime contractor oversight, PE integrity inspections and reporting				

Add Inflation factors from 2010 to most recent (updated for inflation from the latest version of CostPro

2010	1.022	\$74,117.58
2011	1.012	\$75,006.99
2012	1.01	\$75,757.06
2013	1.021	\$77,347.96
2014	1.018	\$78,740.22
2015	1.014	\$79,842.58
2016	1.01	\$80,641.01
2017	1.013	\$81,689.34
2018	1.018	\$83,159.75
2019	1.022	\$84,989.27
2020	1	\$84,989.27
2021	1.046	\$88,898.77
2022	1.042	\$92,632.52

(6.0) in 2009)

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE



Clean Harbors Environmental Services, Inc.  
610 131<sup>st</sup> Place  
Hammond, IN 46327  
219-746-5050  
800.282.0058  
[www.cleanharbors.com](http://www.cleanharbors.com)

**VIA FEDERAL EXPRESS TRK #773907022991**

October 30, 2023

Ms. Carol Bartlett, Environmental Programs Specialist  
Land Protection Division  
Oklahoma Department of Environmental Quality  
707 North Robinson  
Oklahoma City, OK 73102

**RE: Hazardous Waste Facility Liability Insurance**

Clean Harbors Lone Mountain LLC, (Waynoka, OK) – EPA ID No. OKD065438376  
Clean Harbors Lone Mountain LLC (Avard, OK) – EPA ID No. OK0000070136  
Tulsa Disposal LLC – EPA ID No. OKD000632737  
Safety-Kleen Systems, Inc. – multiple sites

Dear Ms. Bartlett:

Please find enclosed four (4) original signed Hazardous Waste Facility Certificates of Liability Insurance issued by Great American Insurance Company. Three (3) certificates are for the three Clean Harbors facilities referenced above while the fourth certificate covers all of the Safety-Kleen Systems, Inc. facilities located in Oklahoma. The policy number is PRE E603235 03 and the policy period is November 1, 2023 – November 1, 2024.

A signed duplicate original of the policy will be made available in 30-60 days and submitted upon a request from the Oklahoma DEQ.

If you have any questions regarding this submittal feel free to contact me at 219-746-5050 or  
[Harvey.Pamela@cleanharbors.com](mailto:Harvey.Pamela@cleanharbors.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Pamela K. Harvey".

Pamela K. Harvey, CHMM  
Sr. Manager Environmental Compliance

Enclosures



Administrative Offices  
301 E. 47<sup>th</sup> Street  
Cincinnati, OH 45202  
Tel. 1-513-369-5000

### HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Clean Harbors, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID#OKD 065438376 Clean Harbors Lone Mountain, LLC 40355 S. County Road 236, Waynoka, OK 73860, for sudden and nonsudden accidental occurrences. The limits of liability are \$5,000,000 each occurrence, and \$10,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 032 issued on November 1, 2023. The effective date of said policy is November 1, 2023.
2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1.
  - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by a Executive Director of the Oklahoma Department of Environmental Quality (DEQ) the Insurer agrees to furnish to the Executive Director a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Executive Director.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Executive Director.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of Authorized Representative of Insurer)

Date:

11/1/2023

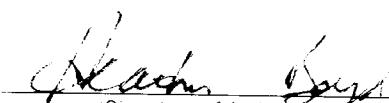
Heather Boyd, Divisional/Subsidiary Vice President, Environmental Division  
Authorized Representative of :

Great American Insurance Company  
31 St. James Ave., Suite 830  
Boston, MA 02116

**HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE**

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Clean Harbors, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID#OK 0000070136 Clean Harbors Lone Mountain, LLC, 1/4 mile East of Avard on County Road 76-22c, Avard, OK 73717, for sudden and nonsudden accidental occurrences. The limits of liability are \$5,000,000 each occurrence, and \$10,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 03 issued on November 1, 2023. The effective date of said policy is November 1, 2023.
2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1.
  - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by the Executive Director of the Oklahoma Department of Environmental Quality (DEQ) the Insurer agrees to furnish to the Executive Director a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Executive Director.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Executive Director.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

  
(Signature of Authorized Representative of Insurer)

Date:

11/1/2023

Heather Boyd, Divisional/Subsidiary Vice President, Environmental Division  
Authorized Representative of Great American Insurance Company  
31 St. James Ave., Suite 830  
Boston, MA 02116

**HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE**

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Clean Harbors, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID#OKD000632737 Tulsa Disposal, LLC 5354 W 46<sup>th</sup> Street South, Tulsa, OK 74107, for sudden and nonsudden accidental occurrences. The limits of liability are \$5,000,000 each occurrence, and \$10,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 03 issued on November 1, 2023. The effective date of said policy is November 1, 2023.
2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1.
  - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by a Executive Director of the Oklahoma Department of Environmental Quality (DEQ) the Insurer agrees to furnish to the Executive Director a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Executive Director.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Executive Director.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

  
(Signature of Authorized Representative of Insurer)

Date: 11/1/2023

Heather Boyd, Divisional/Subsidiary Vice President, Environmental Division  
Authorized Representative of:

Great American Insurance Company  
31 St. James Ave., Suite 830  
Boston, MA 02116

**HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE**

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Safety-Kleen Systems, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID# SEE ATTACHED LIST for sudden accidental occurrences. The limits of liability are \$2,000,000 each occurrence, and \$2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 03 issued on November 1, 2023. The effective date of said policy is November 1, 2023.
2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1.
  - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
  - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
  - (c) Whenever requested by the Executive Director of the Oklahoma Department of Environmental Quality (DEQ) the Insurer agrees to furnish to the Executive Director a signed duplicate original of the policy and all endorsements.
  - (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Executive Director.
  - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Executive Director.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

  
(Signature of Authorized Representative of Insurer)

Date: 11/1/2023

Heather Boyd, Divisional/Assistant Vice President, Environmental Division  
Authorized Representative of:

Great American Insurance Company  
31 St. James Ave., Suite 830  
Boston, MA 02116



Administrative Offices  
301 E 4<sup>th</sup> Street  
Cincinnati, OH 45202  
Tel: 1-513-369-5000

## SAFETY-KLEEN SYSTEMS, INC. LOCATIONS

### STATE OF OKLAHOMA

7528 New Castle Road  
Oklahoma City, OK 73169

OKD980878474

26 N.E. 9<sup>th</sup> Street  
Oklahoma City, OK 73104

OKD018775469

8800 SW 8<sup>th</sup>  
Oklahoma City, OK 73128

OKD987086774

5550 E. Channel Road  
Port of Catoosa, OK 74015

OKD982558207

16319 E. Marshall Street  
Tulsa, OK 74116

OKD000763821

CERTIFICATE OF INSURANCE FOR CLOSURE AND/OR POST-CLOSURE CARE



VIA FEDERAL EXPRESS TRK #772829843184

July 24, 2023

Ms. Carol Bartlett, Environmental Programs Specialist  
Land Protection Division  
Oklahoma Department of Environmental Quality  
707 North Robinson Street  
Oklahoma City, OK 73102

**RE: Financial Assurance Insurance Policy Renewal and Annual Inflation Increase**  
Safety-Kleen Systems, Inc.  
7528 New Castle Road, Oklahoma City      EPA ID No. OKD980878474  
8800 SW 8<sup>th</sup> Street, Oklahoma City      EPA ID No. OKD987086774  
16319 E. Marshall Street, Tulsa      EPA ID No. OKD000763821

Dear Ms. Bartlett:

Please find enclosed three (3) original signed Certificates of Insurance for Closure and/or Post Closure Care issued by Great American Insurance Company. The renewed policy number is CPC E601049 03 and the policy is effective July 31, 2023 through July 31, 2024. In addition, the closure cost estimates have been increased for annual inflation.

The increases were calculated by multiplying the existing 2022 closure cost estimate by the annual inflation factor for Gross National Product 1.0698. This inflation factor was found on the DEQ website under the Solid Waste Annual inflation link (copy attached).

<https://www.deq.ok.gov/land-protection-division/waste-management/solid-waste/>

New Castle Road (Closure):	$\$102,294 \times 1.0698 = \$109,455$
8 <sup>th</sup> Street (Closure):	$\$150,031 \times 1.0698 = \$160,533$
Tulsa (Closure):	$\$149,215 \times 1.0698 = \$159,660$

If you have any questions regarding this submittal or require any additional information, please contact me at 219-746-5050 or at Harvey.Pamela@cleanharbors.com.

Sincerely,

Pamela K. Harvey  
Sr. Manager Environmental Compliance

## Enclosures

Safety-Kleen Systems, Inc. a Clean Harbors Company  
610 131<sup>st</sup> Place Hammond, IN 46327

## **CERTIFICATE OF INSURANCE FOR CLOSURE AND/OR POST-CLOSURE CARE**

Name and Address of Insurer (herein called the "Insurer"):

Great American Insurance Company  
301 E. 4<sup>th</sup> Street  
Cincinnati, OH 45202

Name and Address of Insured, (herein called the "Insured"):

Clean Harbors, Inc.  
42 Longwater Drive  
Norwell, Massachusetts 02061

### **FACILITIES COVERED:**

Name: Safety-Kleen Systems, Inc.

Address: 7528 New Castle Road  
Oklahoma City, OK 73169

EPA ID Number: OKD 980 878 474

Closure: \$109,455

Face Amount: \$429,648

Policy Number: CPC E601049 03

Effective Date: July 31, 2023

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Oklahoma Department of Environmental Quality (DEQ), the Insurer agrees to furnish to the DEQ Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

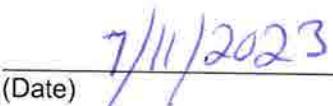
I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e), United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulations were constituted on the date shown immediately below.

  
(Authorized signature for Insurer)

Rick Ringenwald  
(Name of person signing)

Divisional Vice President, Executive Underwriter  
(Title of person signing)

  
(Signature of witness or notary)

  
(Date)

SEAL:

Commonwealth of Pennsylvania - Notary Seal  
Christal Dove, Notary Public  
Chester County  
My commission expires September 29, 2026  
Commission number 1425572  
Member, Pennsylvania Association of Notaries



397 Eagleview Blvd, Suite 100  
Exton, PA 19341  
888.828.4320 ph

## CERTIFICATE OF INSURANCE FOR CLOSURE AND/OR POST-CLOSURE CARE

Name and Address of Insurer (herein called the "Insurer"):

Great American Insurance Company  
301 E. 4<sup>th</sup> Street  
Cincinnati, OH 45202

Name and Address of Insured, (herein called the "Insured"):

Clean Harbors, Inc.  
42 Longwater Drive  
Norwell, Massachusetts 02061

### FACILITIES COVERED:

Name:	Safety-Kleen Systems, Inc.
Address:	8800 SW 8 <sup>th</sup> Street Oklahoma City, OK 73128
EPA ID Number:	OKD 987 086 774
Closure:	\$160,533
Face Amount:	\$429,648
Policy Number:	CPC E601049 03
Effective Date:	July 31, 2023

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Oklahoma Department of Environmental Quality (DEQ), the Insurer agrees to furnish to the DEQ Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

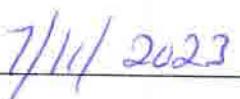
I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e), United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulations were constituted on the date shown immediately below.

  
(Authorized signature for Insurer)

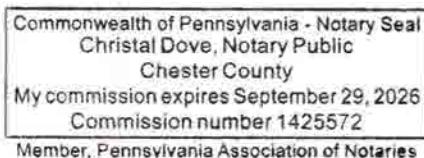
Rick Ringenwald  
(Name of person signing)

Divisional Vice President, Executive Underwriter  
(Title of person signing)

  
(Signature of witness or notary)

  
(Date)

SEAL:



## **CERTIFICATE OF INSURANCE FOR CLOSURE AND/OR POST-CLOSURE CARE**

Name and Address of Insurer (herein called the "Insurer"):

Great American Insurance Company  
301 E. 4<sup>th</sup> Street  
Cincinnati, OH 45202

Name and Address of Insured, (herein called the "Insured"):

Clean Harbors, Inc.  
42 Longwater Drive  
Norwell, Massachusetts 02061

### **FACILITIES COVERED:**

Name: Safety-Kleen Systems, Inc.

Address: 16319 E. Marshall St.  
Tulsa, OK 74116

EPA ID Number: OKD 000 763 821

Closure: \$159,660

Face Amount: \$429,648

Policy Number: CPC E601049 03

Effective Date: July 31, 2023

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Oklahoma Department of Environmental Quality (DEQ), the Insurer agrees to furnish to the DEQ Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

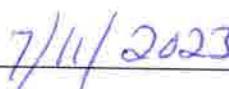
I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e), United States Environmental Protection Agency approved amendment, for the State of Oklahoma, as such regulations were constituted on the date shown immediately below.

  
(Authorized signature for Insurer)

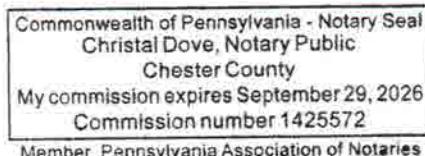
Rick Ringenwald  
(Name of person signing)

Divisional Vice President, Executive Underwriter  
(Title of person signing)

  
(Signature of witness or notary)

  
(Date)

SEAL:



The following charts identify the annual inflation adjustments to be applied to solid waste disposal facility closure and post-closure cost estimates.

**IMPLICIT PRICE DEFLATOR  
GROSS DOMESTIC PRODUCT**  
(Updated January 31<sup>st</sup> of each year)

Year			Inflation
<b>1998</b>	1997 IPD = 101.95	1996 IPD = 100.00	1.95%
<b>1999</b>	1998 IPD = 103.22	1997 IPD = 101.95	1.25%
<b>2000</b>	1999 IPD = 104.77	1998 IPD = 103.22	1.50%
<b>2001</b>	2000 IPD = 106.92	1999 IPD = 104.77	2.05%
<b>2002</b>	2001 IPD = 109.23	2000 IPD = 106.92	2.16%
<b>2003</b>	2002 IPD = 110.66	2001 IPD = 109.23	1.31%
<b>2004<sup>1</sup></b>	2003 IPD = 105.643	2002 IPD = 103.945	1.63%
<b>2005</b>	2004 IPD = 108.220	2003 IPD = 105.643	2.44%
<b>2006</b>	2005 IPD = 112.113	2004 IPD = 108.220	3.60%
<b>2007</b>	2006 IPD = 116.034	2005 IPD = 112.737	2.93 %
<b>2008</b>	2007 IPD = 119.674	2006 IPD = 116.567	2.66 %
<b>2009</b>	2008 IPD = 122.357	2007 IPD = 119.816	2.12%
<b>2010</b>	2009 IPD = 109.777	2008 IPD = 108.483	1.19%
<b>2011</b>	2010 IPD = 110.654	2009 IPD = 109.615	0.95%
<b>2012</b>	2011 IPD = 113.327	2010 IPD = 110.992	2.10%
<b>2013</b>	2012 IPD = 115.360	2011 IPD = 113.359	1.76%
<b>2014</b>	2013 IPD = 106.570	2012 IPD = 105.002	1.49%
<b>2015</b>	2014 IPD = 108.272	2013 IPD = 106.733	1.44%
<b>2016</b>	2015 IPD = 109.767	2014 IPD = 108.686	0.99%
<b>2017</b>	2016 IPD = 111.446	2015 IPD = 109.998	1.32%
<b>2018</b>	2017 IPD = 113.422	2016 IPD = 111.416	1.02%
<b>2019</b>	2018 IPD = 110.389	2017 IPD = 107.948	2.26%
<b>2020</b>	2019 IPD = 112.355	2018 IPD = 110.420	1.75%
<b>2021</b>	2020 IPD = 113.626	2019 IPD = 112.265	1.21%
<b>2022</b>	2021 IPD = 118.357	2020 IPD = 113.648	4.14 %
<b>2023</b>	2022 IPD = 127.192	2021 IPD = 118.895	6.98 %

**IMPLICIT PRICE DEFLATOR  
GROSS NATIONAL PRODUCT**  
(Updated March 31<sup>st</sup> of each year)

<b>Year</b>	1997 IPD = 101.93	1996 IPD = 100.00	<b>Inflation</b>
<b>1998</b>	1997 IPD = 101.93	1996 IPD = 100.00	1.93%
<b>1999</b>	1998 IPD = 103.19	1997 IPD = 101.93	1.24%
<b>2000</b>	1999 IPD = 104.77	1998 IPD = 103.19	1.53%
<b>2001</b>	2000 IPD = 106.89	1999 IPD = 104.73	2.06%
<b>2002</b>	2001 IPD = 109.21	2000 IPD = 106.89	2.17%
<b>2003</b>	2002 IPD = 110.63	2001 IPD = 109.21	1.30%
<b>2004<sup>1</sup></b>	2003 IPD = 105.671	2002 IPD = 103.932	1.67%
<b>2005</b>	2004 IPD = 109.091	2003 IPD = 106.299	2.63%
<b>2006</b>	2005 IPD = 112.129	2004 IPD = 109.091	2.78%
<b>2007</b>	2006 IPD = 116.036	2005 IPD = 112.726	2.94%
<b>2008</b>	2007 IPD = 119.656	2006 IPD = 116.558	2.66 %
<b>2009</b>	2008 IPD = 122.407	2007 IPD = 119.813	2.17%
<b>2010</b>	2009 IPD = 109.764	2008 IPD = 108.486	1.18%
<b>2011</b>	2010 IPD = 110.654	2009 IPD = 109.609	0.95%
<b>2012</b>	2011 IPD = 113.347	2010 IPD = 110.971	2.14%
<b>2013</b>	2012 IPD = 115.387	2011 IPD = 113.353	1.79%
<b>2014</b>	2013 IPD = 106.710	2012 IPD = 105.126	1.51%
<b>2015</b>	2014 IPD = 108.407	2013 IPD = 106.854	1.45%
<b>2016</b>	2015 IPD = 109.868	2014 IPD = 108.800	0.98%
<b>2017</b>	2016 IPD = 111.528	2015 IPD = 110.090	1.31%
<b>2018</b>	2017 IPD = 113.500	2016 IPD = 111.509	1.79 %
<b>2019</b>	2018 IPD = 110.308	2017 IPD = 107.903	2.23%
<b>2020</b>	2019 IPD = 112.257	2018 IPD = 110.320	1.76%
<b>2021</b>	2020 IPD = 113.586	2019 IPD = 112.227	1.21%
<b>2022</b>	2021 IPD = 118.349	2020 IPD = 113.636	4.15%
<b>2023</b>	2022 IPD = 127.194	2021 IPD = 118.871	7.00%

Information for tables obtained from Bureau of Economic Analysis

Table 1.1.9 at

<https://apps.bea.gov/iTable/?reqid=19&step=2&isuri=1&categories=survey#>

<sup>1</sup>In 2004, the Bureau of Economic Analysis revised its indexing and set the baseline index at 100 for the year 2000. Previous implicit price deflators were based on a baseline index of 100 for the year 1996.

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 7**

**CONTAINER STORAGE**

## 7.0 MANAGEMENT OF WASTES IN CONTAINERS

### 7.1 DESCRIPTION OF WASTES TO BE STORED (40 CFR 264.173)

The container storage area in the warehouse and the container storage area in the metal shelter are used for the storage of used immersion cleaner, spent aqueous parts cleaning solutions, spent aqueous brake cleaning solution, spent parts washer solution, dry cleaning wastes, paint wastes, drum washer/dumpster sediment, tank bottom sediment, contaminated debris, and transfer wastes. These may carry one or more of the waste codes listed in the Facility Description -Abstract at the beginning of this application. The wastes are not mixed while onsite and incompatible wastes are kept segregated. In addition, proper hazardous waste labels are affixed to the containers. Hazardous waste labels must include the following wording: *"Hazardous Waste - Federal Law Prohibits Improper Disposal If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency."* Labels must also include the generator's name and address and manifest document number.

In addition, the labels must include the EPA waste codes, the accumulation start date and the generator's EPA ID number (if applicable). The container storage areas store DOT approved containers normally ranging in volume from 5 gallons up to an 85-gallon overpack and occasionally bulk storage containers (totes, cubic yard boxes etc.) up to 350 gallons.

### 7.2 SECONDARY CONTAINMENT STRUCTURES (40 CFR 284.175)

The container storage area in the warehouse has secondary containment in the form of a coated concrete floor which slopes to two, coated concrete, grated, blind trenches located along the north and west sides of the storage area. The area is also surrounded by a six inch wide by four inch high curb.

The metal shelter has secondary containment in the form of a metal pan at its base.

The total containment volume in each storage area is more than 10% of the total volume of the containers that will be stored in each area at a time.

The slabs and collection trenches for the container storage areas are made of steel reinforced concrete. Joints are sealed with chemical-resistant water stops. Steel grates cover the trenches to facilitate the movement of drums across them. The entire base is free of cracks and gaps and has been sealed with chemical resistant coating to further decrease permeability. The wastes in storage

are only incompatible with strong oxidizers and reactive metals, which are not present in the base or sealants.

The total volume of materials (including products and non-hazardous wastes) stored in the container storage areas will not exceed the volume shown in the Waste Analysis Plan (WAP) Abstract.

### **7.3 PREVENTION OF RUNON, RUNOFF AND ACCUMULATION OF SPILLS (40 CFR 264.175)**

The container storage areas are indoors so accumulation of precipitation, runon and runoff is essentially eliminated. Spilled or leaked waste must be removed from the secondary containment systems with sufficient frequency to prevent overflow. Daily inspections for the trenches will result in the removal of any accumulated liquids. A hand-held pump (e.g., COMSpump or wet/dry vacuum), sorbent material or other appropriate methods will be used to remove liquids. Material will be properly disposed of.

### **7.4 STORAGE CONFIGURATION**

The containers of permitted waste will be stored in rows on pallets. Containers that are 55-gallons or larger will not be stacked more than three high and pallets will be used between layers of stacked containers. Containers in the storage areas are moved with a forklift, pallet jack, drum cart or other safe and effective means. Total volume of material (both product and waste) to be stored in the warehouse or metal shelter, at any given time, will not exceed the volume shown in the Waste Analysis Plan (Vt/AP) Abstract.

Incompatible wastes will be segregated appropriately per DOT segregation requirements.

### **7.5 COMPATIBILITY OF CONTAINERS WITH THEIR CONTENTS AND EACH OTHER (40 CFR 264.172)**

All wastes will be stored in containers that meet DOT specifications for those materials.

## **7.6 HANDLING AND MANAGEMENT OF CONTAINERS**

Containers holding hazardous wastes will be closed during storage except when it is necessary to add or remove waste. In addition, containers holding hazardous waste will not be opened, handled or stored in a manner which may rupture the container or cause it to leak. Containers will be closed during movement and, if necessary, opened only in contained areas. Any objects or actions that may cause puncture of containers must be avoided.

## **7.7 INSPECTIONS (40 CFR 264.174)**

The container storage areas must be inspected on all operating days, which excludes weekends and holidays. If a container holding hazardous waste is not in good condition, or it begins to leak, its contents are either transferred to a new container, the leaking container is overpacked or it is managed in another way that complies with this section.

The containment structure must be inspected for cracks, corrosion or any other sign of deterioration. Any sign of deterioration must be noted on the inspection sheet and the deterioration must be remediated.

## **7.8 BUFFER ZONE REQUIREMENTS (40 CFR 264.176)**

In accordance with 40 CFR 264.176, containers holding ignitable wastes must not be stored within 50 feet of the property line. Each container storage area meets the 50 foot buffer zone requirement.

## **7.9 COMPLIANCE WITH LAND DISPOSAL RESTRICTIONS (40 CFR 268)**

In accordance with 40 CFR 268.50, each waste container must be clearly marked to identify its contents and the date the period of accumulation began. No container may be stored for longer than one year (unless it is non-hazardous).

## 7.10 SUBPART CC {40 CFR 264.1086}

Containers managing hazardous wastes at this facility generally fall into the following categories:

- a. Those hazardous waste containers that are less than 26 gallons in capacity are exempt from regulation under Subpart CC. In addition, containers which are "transferred" through the facility are considered to be in the course of transportation, as opposed to storage, and therefore, are not subject to Subpart CC standards.
- b. Containers with capacities between 26 and 122 gallons are Level 1 containers, and generally meet the Level 1 standards of the container being covered and designed and operated with no gaps, holes, cracks or other open spaces. In addition, containers used to manage wastes meet applicable U.S. DOT regulations for packaging and transport.
- c. Containers greater than 122 gallons that manage hazardous wastes at this facility are not in liquid service and are therefore considered Level 1 covered containers designed and operated with no gaps, holes, cracks or other open spaces. In addition, containers used to manage waste meet applicable U.S. DOT regulations for packaging and transport of hazardous materials.

Hazardous wastes accepted from off-site generators are already containerized when the facility accepts the waste. Such containers are visually inspected at time of pickup, at time of offload for storage or transfer at the facility and during the daily inspection.

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMIT ATTACHMENT 8**

**TANK STORAGE**

**8.0 MANAGEMENT OF WASTE IN TANKS (40 CFR 284 SUBPART J)****8.1 DESCRIPTION OF TANK SYSTEM**

The waste storage tank system is aboveground and piping outside of secondary containment has welded joints.

The 16,800-gallon aboveground, vertical hazardous waste (HW) storage tank is 20' high and 12' in diameter. The tank is constructed of 3/16" thick (1/4" at the bottom third of the tank) carbon steel painted white to reflect sunlight and minimize corrosion. The tank has been designed in accordance with Underwriters Laboratories (UL) Standard 142 and is located more than 20 feet from the property line, in accordance with Table 2-6 of the National Fire Protection buffer zone requirements. Spent parts washer solution is stored in the tank. The entire facility, including the tank farm, is secured by a 6' high chain link fence topped by three strands of barbed wire.

A manually controlled waste feed cut-off valve located adjacent to the drum washer/dumpster unit at the return and fill station can prevent the waste tank from being overfilled. In addition, the aboveground tank is equipped with a high-level alarm (aural and visual) to indicate when the tank is approximately 95% full. The high-level alarm is inspected daily.

Each tank is equipped with a pressure/vacuum vent which operates at two ounces of pressure and one ounce of vacuum. The tanks operate at atmospheric pressure and venting is to the atmosphere. Also, the twenty-four inch man way on each tank is provided with long bolts, partially threaded, to allow for emergency venting of the tank in the event of an emergency as prescribed by the National Fire Protection Association. The specific gravity of the spent parts washer solution is approximately 0.8 and the vapor pressure at 68°F is 0.4mm Hg.

**8.2 DESCRIPTION OF SECONDARY CONTAINMENT SYSTEM (40 CFR 264.193)**

The secondary containment for the tanks consists of a monolithically poured concrete slab and dike wall. Joints are protected with chemical-resistant water stops. The slab is 6" thick and the wall is 6" thick steel-reinforced concrete. The diked area is shown on a drawing in Appendix C and has a containment volume in excess of 16,800 gallons plus the precipitation from a 25-year, 24-hour rain event. Accumulated rainwater will be removed from the secondary containment within 24 hours after the ceasing of a rain event. It will be inspected for any appearance of sheen. If no sheen is present, the precipitation will be pumped to ground. If sheen is present, the precipitation will be pumped into the waste storage tank for proper disposal. Currently there are three tanks in the diked

area; two tanks at 16,800 gallons and one tank at 12,000 gallons. One 16,800-gallon tank is for spent parts washer solution and spent aqueous solutions; the other 16,800-gallon tank is for clean product mineral spirit solvent; and the 12,000-gallon tank is currently empty and out of service. Each tank is equipped with a high level alarm. Reference is made to the tank farm plan in Appendix E for secondary containment calculations.

### **8.3 TANK MANAGEMENT PRACTICES (40 CFR 264.195)**

The tanks and secondary containment are inspected each operating day excluding holidays and any other occasion when no operations are occurring (e.g. weekends, inclement weather, all-day training, power outage etc.). Specific parameters of the inspection are covered in Section 3.2.

Volume gauges must be checked to insure the tanks are not being overfilled. Leaks or signs of deterioration must be noted and remediated immediately. The procedures to remove spilled or leaked material from the secondary containment are described in 4.3.1 and 4.3.2. Spilled or leaked material will be removed immediately upon detection.

### **8.4 SUBPART CC (40 CFR 264.1084)**

There is one waste storage tank at the facility. Tank features as they relate to Subpart CC are as follows: tanks are non-pressurized, fixed-roof type with a capacity of less than 20,000 gallons. The waste stored in the tank exhibits a vapor pressure of less than 5.2 kPa (11.1 psi). The actual vapor pressure of the waste managed is approximately 0.008 psi.

The tanks are designed and operated so that cover openings can be closed with no visible gaps, holes, cracks or other open spaces into the interior of the tanks. The cover and cover openings operate with no detectable emissions when in a closed position. Cover openings are maintained in a closed position except when the waste is being added or removed from the tanks, or when necessary sampling or repair/maintenance is performed. The tanks are vented to the atmosphere through a safety device which has been designed to operate with no detectable emissions when the device is in the closed position.

Visual inspections of the tanks and control devices are conducted on an annual basis.

**SAFETY-KLEEN SYSTEMS, INC.  
OKLAHOMA CITY, OKLAHOMA**

**PERMT ATTCHMENT 9**

**SPECIAL CONDITIONS**

## 9.0 SPECIAL CONDITIONS - CUP (CONTINUED USE PROGRAM)

### 9.1 DESCRIPTION

Under the CUP, spent parts washer solutions (hereinafter CUP solvents) collected from customers are eligible to be used for drum washing activities at the facility and are exempt from the definition of hazardous waste as provided in 40 CFR 261.2(e)(1)(ii), when the CUP solvents are managed according to the following:

1. No generators located outside the state of Oklahoma will be allowed to participate in the CUP program at the Oklahoma City, OK service center.
2. Safety-Kleen shall maintain the following records at the facility from each generator for a minimum of three years in accordance with the requirements of 40 CFR 261.2(f):
  - a. Name, address and EPA ID number (if applicable)
  - b. Quantity of CUP solvent picked up
  - c. Continued Use Service Checklist
3. CUP solvents that meet any of the following criteria shall be managed as a hazardous waste:
  - a. CUP solvent not used to wash drums
  - b. CUP solvent that would be ineffective as a drum washing agent
  - c. CUP solvent that is cross-contaminated with any foreign materials that would render the CUP solvent ineffective as a drum washing agent
4. Safety-Kleen shall use only the CUP solvent vat located in the Return and Fill shelter area for handling/transference of CUP solvent. Non-CUP solvent will not be placed in the CUP vat.
5. In the event Safety-Kleen discovers that a CUP customer has returned or attempted to return to Safety-Kleen (a) solvents in violation of the criteria set forth in the Solvent Eligibility Form or (b) solvents containing non-solvent, toxic materials of a type or amount not consistent with the customer's normal parts washing activities, Safety-Kleen will warn the customer that they may be removed from the program if the problem persists.
6. Safety-Kleen will not speculatively accumulate CUP solvent. To ensure that speculative accumulation is not occurring, CUP solvent must be used within 96 hours of receipt (excluding weekends.)

7. Safety-Kleen shall not use more CUP solvent than necessary for the drum washing operation. No more than 13 gallons of CUP solvent shall be used per drum wash cycle. It should be noted, however, that not every drum can be adequately cleaned with a single drum wash cycle. Therefore, occasionally, more than one wash cycle may be needed to clean a single drum.



Safety-Kleen Systems, Inc.  
125 Sommerville Road  
Raleigh, NC 27603

December 15, 2023

Ms. Hillary Young  
Chief Engineer – Land Protection Division  
Oklahoma Department of Environmental Quality  
707 North Robinson  
Oklahoma City, Oklahoma 73101

Re: Part B Permit Renewal Application, for Safety-Kleen Systems, Inc., Oklahoma City OKD980878474

Dear Ms. Bari:

Safety-Kleen Oklahoma City is submitting the Part B renewal Application package via Fed ex.  
Included in this submittal are:

1. Two copies of the Part B application.
2. A complete electronic copy.
3. The Check for the application fee.

If you have any questions regarding this request, please feel free to contact me at (513) 616-7248 or via email at [bleys@cleanharbors.com](mailto:bleys@cleanharbors.com)

Sincerely,

A handwritten signature in black ink, appearing to read 'Stephen Bley', is written over a dashed horizontal line.

Stephen Bley  
Sr. Environmental Compliance Manager  
cc: Clean Harbors

## CERTIFICATION STATEMENT

### OKLAHOMA CITY, OK FACILITY

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Applicant Mori Sorenson

Title of Applicant: VP Environmental Compliance

Signature of Applicant: Mori Sorenson

Date: 10/02/24

## ATTESTATION

The undersigned attesting witness to the Certification Statement and this document of which this affidavit is part, states that I am personally responsible for the preparation of the document, that I personally gathered the information contained herein, and further that the information, to the best of my knowledge and belief, is true, accurate, and complete.

Name of Attesting Witness: Stephen Bley

Title of Attesting Witness: Environmental Compliance Manager

Signature of Attesting Witness: Stephen Bley

Date: 10/02/24

## DEQ LANDOWNER NOTIFICATION AFFIDAVIT

Tier I, II, or III permit applications in which the applicant does not own all the land subject to the application must notify the owner(s) of leases and/or pipeline right-of-ways. The basis for this requirement is Title 27A of the Oklahoma Statutes § 2-14-103(9), as described in OAC 252:004-7-13(b).

**Please note that you MUST fill out and return this affidavit even if you don't have to give any landowner notice.**

<b>A</b>	NOTICE TO THE LANDOWNER(S) IS NOT REQUIRED because: (check one)
<input type="checkbox"/>	My application does not involve any land. <input checked="" type="checkbox"/> My application involves only land owned by me (or applicant business).

### OR

<b>B</b>	NOTICE TO THE LANDOWNER(S) IS REQUIRED because the land is owned by someone other than myself or the applicant business AND I HAVE NOTIFIED the following (check one):
<input type="checkbox"/>	Landowner(s) <input type="checkbox"/> Lessor or Administrator or Executor of the land
METHOD OF DELIVERY (check one):	
<input type="checkbox"/>	Actual notice, for which I have a signed and dated receipt
<input type="checkbox"/>	Service by Sheriff or private process server, for which I have an affidavit
<input type="checkbox"/>	Service by certified mail, restricted delivery, for which I have a signed return receipt
<input type="checkbox"/>	Legal publication, for which I have an affidavit of publication from the newspaper, because the landowners could not be located through due diligence
MY RIGHT TO USE THIS LAND is by:	
<input type="checkbox"/>	Lease <input type="checkbox"/> Easement <input type="checkbox"/> Other, Specify

### LANDOWNER AFFIDAVIT CERTIFICATION

I, as the applicant or an authorized representative of the applicant, hereby certify that notice to the landowner(s) about the permit application for the facility described below was provided per Option A or B above.

Company Name	Safety-Kleen Systems, Inc.	Facility Name	Oklahoma City
Facility Address or Legal Description.	7528 Newcastle Road		
Responsible Official (signature)		Date Signed	10-21-24
Responsible Official (typed)	Mori Sorenson	Title	VP Environmental Compliance

If the landowner notice applies to your application (Option B Above) you can send the following form to them as your notice:

NOTICE TO LANDOWNER OF FILING	
Dear Landowner: (Name) _____	
(Applicant name) _____ has filed a permit application with the Oklahoma	
Department of Environmental Quality for (Name) Oklahoma City _____ facility.	
This application involves the land owned by you located at:	
Address or Legal Description: _____	
Signed: _____ Date: _____	

## APPENDIX A

**Exhibit A-1 U.S. EPA Part A Application**

**Exhibit A-2 Subtitle C Information Form**

**Exhibit A-3 Facility Photos**

## United States Environmental Protection Agency

## HAZARDOUS WASTE PERMIT PART A FORM



## 1. Facility Permit Contact

First Name	Emily	MI	Last Name	DeVore	
Title	Sr Manager Environmental Compliance				
Email	devore.emilly@safety-kleen.com				
Phone	(417) 324-8838	Ext	N/A	Fax	N/A

## 2. Facility Permit Contact Mailing Address

Street Address	7528 Newcastle Road		
City, Town, or Village	Oklahoma City		
State	Oklahoma	Country	USA
		Zip Code 73169	

## 3. Facility Existence Date (mm/dd/yyyy)

7/1/1985
----------

## 4. Other Environmental Permits

A. Permit Type	B. Permit Number								C. Description		

## 5. Nature of Business

THIS FACILITY IS AN ACCUMULATION POINT FOR MANY SPENT MATERIALS GENERATED BY SAFETY-KLEEN CUSTOMERS. ALL WASTES ARE ULTIMATELY SENT TO A SAFETY-KLEEN FACILITY OR A CONTRACTED EQUIVALENT FACILITY.

## 6. Process Codes and Design Capacities

Line Number	A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
				(1) Amount	(2) Unit of Measure		
X 1	S 0	1		3912	G	002	Container Storage Area
X 2	S 0	2		16800	G	001	Tank

## 7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1) )

Line No.	A. EPA Hazardous Waste No.					B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes							
								(1) Process Codes						(2) Process Description (if code is not entered in 7.D1)	
0 1	D 0	0	1			990	T	S	0	1	S	0	2		Included with above
0 2	D 0	0	4			990	T								Included with above
0 3	D 0	0	5			990	T								Included with above
0 4	D 0	0	6			990	T								Included with above
0 5	D 0	0	7			990	T								Included with above
0 6	D 0	0	8			990	T								Included with above
0 7	D 0	0	9			990	T								Included with above
0 8	D 0	1	0			990	T								Included with above
0 9	D 0	1	1			990	T								Included with above
1 0	D 0	1	8			990	T								Included with above
1 1	D 0	1	9			990	T								Included with above

## 8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

## 9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

## 10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

## 11. Comments

**This submittal is being provided as part of the RCRA Part B permit Renewal Application.**

**Line item 7 continued on additional attached page.**

**The site maps specified in item 10. are provided in Appendix C of the accompanying RCRA Part B Permit Renewal Application.**

9. Description of Hazardous Wastes (Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)		B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES											
					(1) PROCESS CODES (Enter Code)										(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))	
1 2	D	0	2	1	990	T	S	0	1	S	0	2				Included with above.
1 3	D	0	2	2	990	T										Included with above.
1 4	D	0	2	3	990	T										Included with above.
1 5	D	0	2	4	990	T										Included with above.
1 6	D	0	2	5	990	T										Included with above.
1 7	D	0	2	6	990	T										Included with above.
1 8	D	0	2	7	990	T										Included with above.
1 9	D	0	2	8	990	T										Included with above.
2 0	D	0	2	9	990	T										Included with above.
2 1	D	0	3	0	990	T										Included with above.
2 2	D	0	3	2	990	T										Included with above.
2 3	D	0	3	3	990	T										Included with above.
2 4	D	0	3	4	990	T										Included with above.
2 5	D	0	3	5	990	T										Included with above.
2 6	D	0	3	6	990	T										Included with above.
2 7	D	0	3	7	990	T										Included with above.
2 8	D	0	3	8	990	T										Included with above.
2 9	D	0	3	9	990	T										Included with above.
3 0	D	0	4	0	990	T										Included with above.
3 1	D	0	4	1	990	T										Included with above.
3 2	D	0	4	2	990	T										Included with above.
3 3	D	0	4	3	990	T										Included with above.
3 4	F	0	0	1	40	T	S	0	1							
3 4	F	0	0	2	57	T	S	0	1							
3 5	F	0	0	3	35	T	S	0	1							
3 6	F	0	0	5	50	T	S	0	1							

# RCRA SUBTITLE C ACTIVITIES FORMS

United States Environmental Protection Agency  
RCRA SUBTITLE C SITE IDENTIFICATION FORM



## 1. Reason for Submittal (Select only one.)

<input type="checkbox"/>	Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time.
<input type="checkbox"/>	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
<input type="checkbox"/>	Site was a TSD facility, a reverse distributor, and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in <b>one or more months of the reporting year</b> (or State equivalent LQG regulations)
<input type="checkbox"/>	Notifying that regulated activity is no longer occurring at this Site
<input type="checkbox"/>	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
<input checked="" type="checkbox"/>	Submitting a new or revised Part A (permit) Form

## 2. Site EPA ID Number

O	K	D	9	8	0	8	7	8	4	7	4
---	---	---	---	---	---	---	---	---	---	---	---

## 3. Site Name

**Safety-Kleen Systems, Inc.**

## 4. Site Location Address

Street Address	<b>7528 Newcastle Road</b>	
City, Town, or Village	<b>Oklahoma City</b>	
State	<b>Oklahoma</b>	Country
Latitude	35.403778	Longitude
		<input type="checkbox"/> Use Lat/Long as Primary Address

## 5. Site Mailing Address

Same as Location Street Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

## 6. Site Land Type

Private  County  District  Federal  Tribal  Municipal  State  Other

## 7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) <b>562112</b>	C. <b>532490</b>
B. <b>484220</b>	D. <b>484230</b>

## 8. Site Contact Information

 Same as Location Address

First Name	Emily	MI	Last Name	DeVore	
Title	Sr. Manager Environmental Compliance				
Street Address	734 Northwest Bypass 66				
City, Town, or Village	Springfield				
State	MO	Country	USA	Zip Code	65802
Email	devore.emilly@safety-kleen.com				
Phone	4173248838	Ext	NA	Fax	NA

## 9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner  Same as Location Address

Full Name	Safety-Kleen Systems, Inc.					4/1/1984
Owner Type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other					
Street Address	42 Longwater Drive					
City, Town, or Village	Norwell					
State	MA	Country	USA	Zip Code	02061-9149	
Email	NA					
Phone	781-792-5000	Ext	NA	Fax	NA	
Comments						

B. Name of Site's Legal Operator  Same as Location Address

Full Name						Date Became Operator (mm/dd/yyyy)
Operator Type	<input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other					
Street Address						
City, Town, or Village						
State	Country	Zip Code				
Email						
Phone	Ext	Fax				
Comments						

**10. Type of Regulated Waste Activity (at your site)**

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities**

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input checked="" type="checkbox"/>	a. LQG	-Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
<input type="checkbox"/>	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
<input type="checkbox"/>	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. <i>Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.</i>	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5 Recycler of Hazardous Waste	
<input type="checkbox"/>	a. Recycler who stores prior to recycling	
<input type="checkbox"/>	b. Recycler who does not store prior to recycling	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/>	a. Small Quantity On-site Burner Exemption	
<input type="checkbox"/>	b. Smelting, Melting, and Refining Furnace Exemption	

**B. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D004	D005	D006	D007	D008	D009
D010	D011	D018	D019	D021	D022	D023
D024	D025	D026	D027	D028	D029	D030
D032	D033	D034	D035	D036	D037	D038
D039	D040	D041	D042	D043	F001	F002

**C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.


## 11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)

## A. Other Waste Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Transporter of Hazardous Waste—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Transporter
<input type="checkbox"/>	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Underground Injection Control
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	3. United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Recognized Trader—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If “Yes”, mark all that apply.
<input type="checkbox"/>	a. Importer
<input type="checkbox"/>	b. Exporter

## B. Universal Waste Activities

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If “Yes” mark all that apply. Note: Refer to your State regulations to determine what is regulated.
<input type="checkbox"/>	a. Batteries
<input type="checkbox"/>	b. Pesticides
<input type="checkbox"/>	c. Mercury containing equipment
<input type="checkbox"/>	d. Lamps
<input type="checkbox"/>	e. Aerosol Cans
<input type="checkbox"/>	f. Other (specify) _____
<input type="checkbox"/>	g. Other (specify) _____
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

## C. Used Oil Activities

<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1. Used Oil Transporter—if “Yes”, mark all that apply.
<input type="checkbox"/> X	a. Transporter
<input type="checkbox"/> X	b. Transfer Facility (at your site)
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Used Oil Processor and/or Re-refiner—if “Yes”, mark all that apply.
<input type="checkbox"/>	a. Processor
<input type="checkbox"/>	b. Re-refiner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	3. Off-Specification Used Oil Burner
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4. Used Oil Fuel Marketer—if “Yes”, mark all that apply.
<input type="checkbox"/>	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
<input type="checkbox"/>	b. Marketer Who First Claims the Used Oil Meets the Specifications

**D. Pharmaceutical Activities**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if “Yes”, mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor.
	<input type="checkbox"/> a. Healthcare Facility
	<input type="checkbox"/> b. Reverse Distributor
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals.

**12. Eligible Academic Entities with Laboratories**—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If “Yes”, mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
	<input type="checkbox"/> 1. College or University
	<input type="checkbox"/> 2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
	<input type="checkbox"/> 3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories.

**13. Episodic Generation**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If “Yes”, you must fill out the Addendum for Episodic Generator.
--	---

**14. LQG Consolidation of VSQG Hazardous Waste**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If “Yes”, you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste.
--	---

**15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)**

<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
	A. <input type="checkbox"/> Central Accumulation Area (CAA) or <input type="checkbox"/> Entire Facility
	B. Expected closure date: _____ mm/dd/yyyy
	C. Requesting new closure date: _____ mm/dd/yyyy
	D. Date closed : _____ mm/dd/yyyy
	<input type="checkbox"/> 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)
	<input type="checkbox"/> 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

## 1. Notification of Hazardous Secondary Material (HSM) Activity

 Y  N

Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

## 2. Electronic Manifest Broker

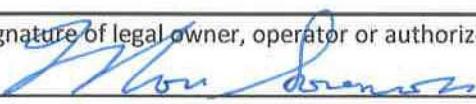
 Y  N

Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

## 3. Comments (include item number for each comment)

Item 10.b., continued: F003, F005.

4. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative 	Date (mm/dd/yyyy) 12/12/2023
Printed Name (First, Middle Initial Last) Mori T Sorenson	Title VP Environmental Compliance
Email mori.sorenson@safety-kleen.com	

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	

## APPENDIX B

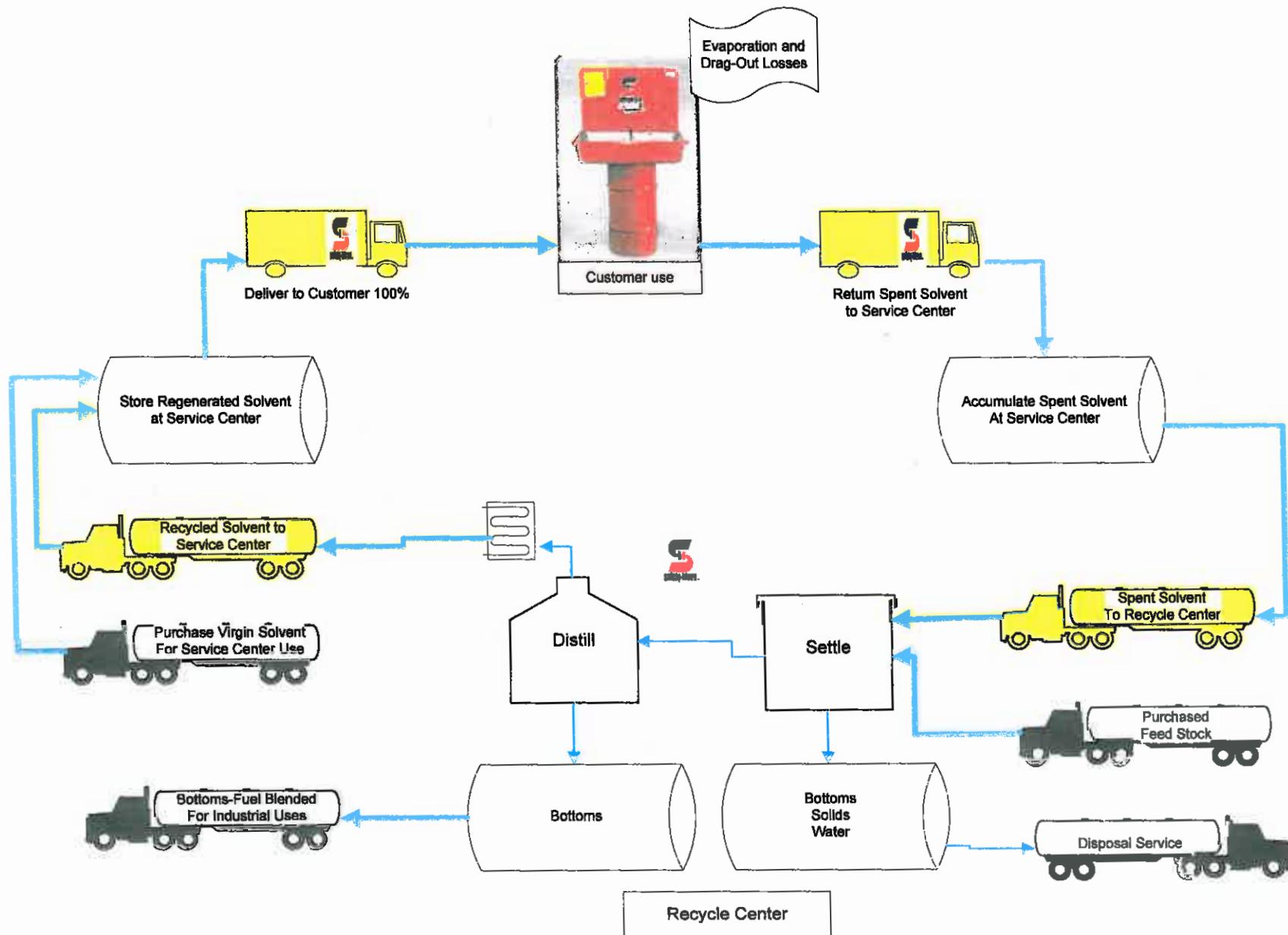
**Exhibit B-1 Safety-Kleen Solvent Use and Regeneration Loop**

**Exhibit B-2 Unit Process for Handling Waste in Containers**

**Exhibit B-3 Unit Process for the Handling of Spent Parts Washer Solvent**

## Safety-Kleen Solvent Use & Regeneration Loop

Exhibit B-1

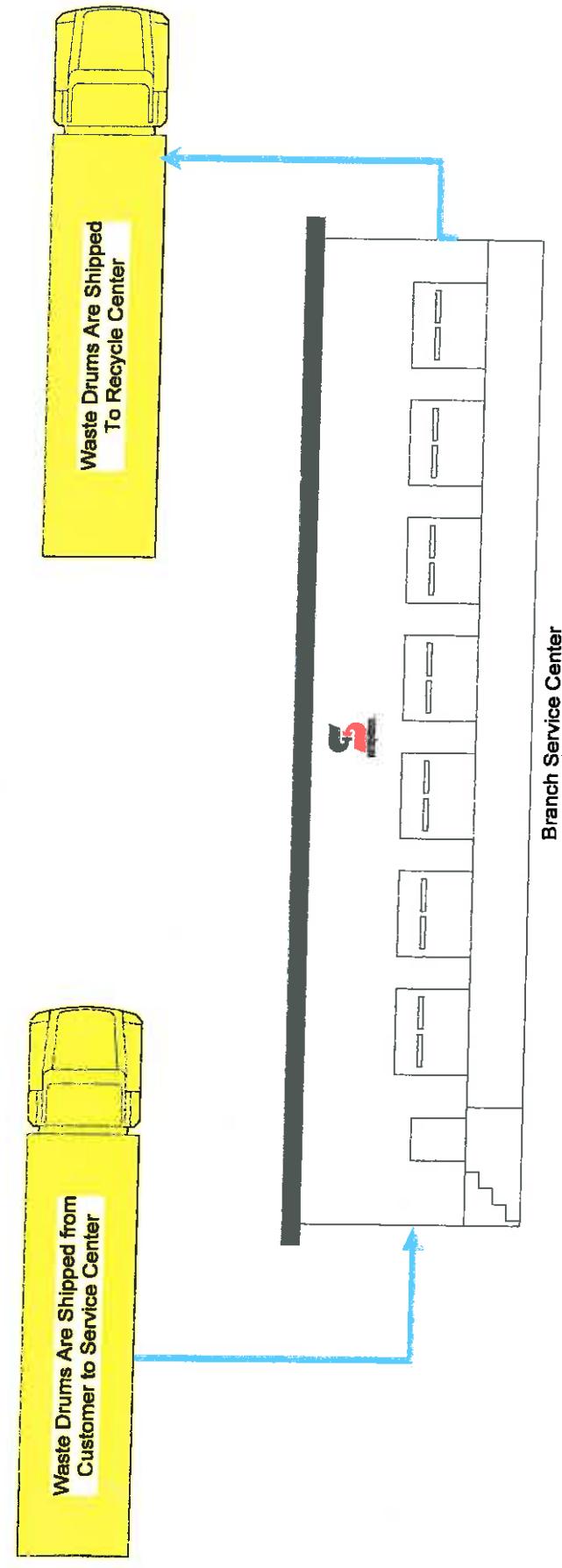


## Unit Process for Handling Wastes in Containers

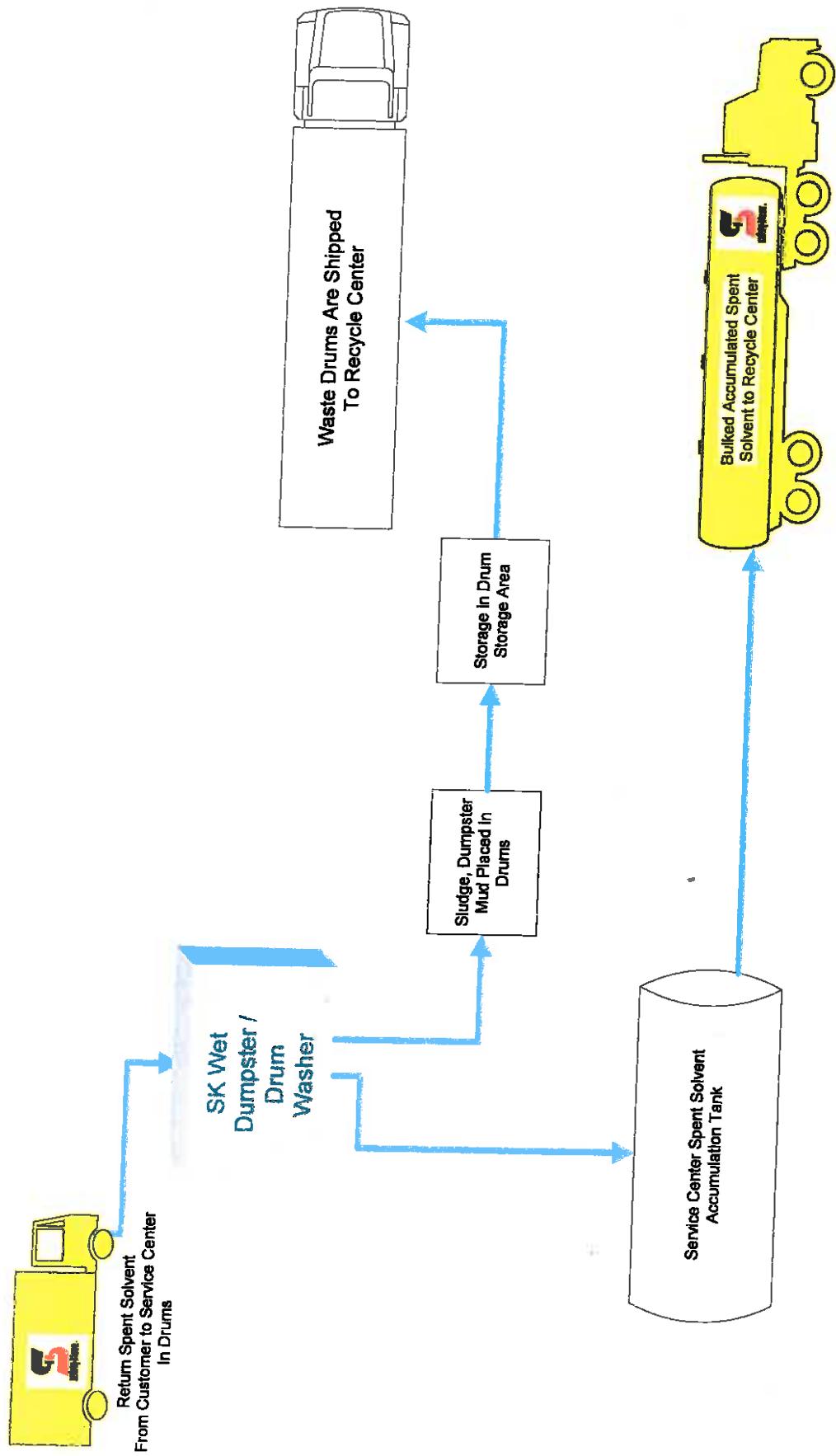
Includes Spent Immersion Cleaner, Dry Cleaning Waste, Paint Waste, Aqueous Solvents

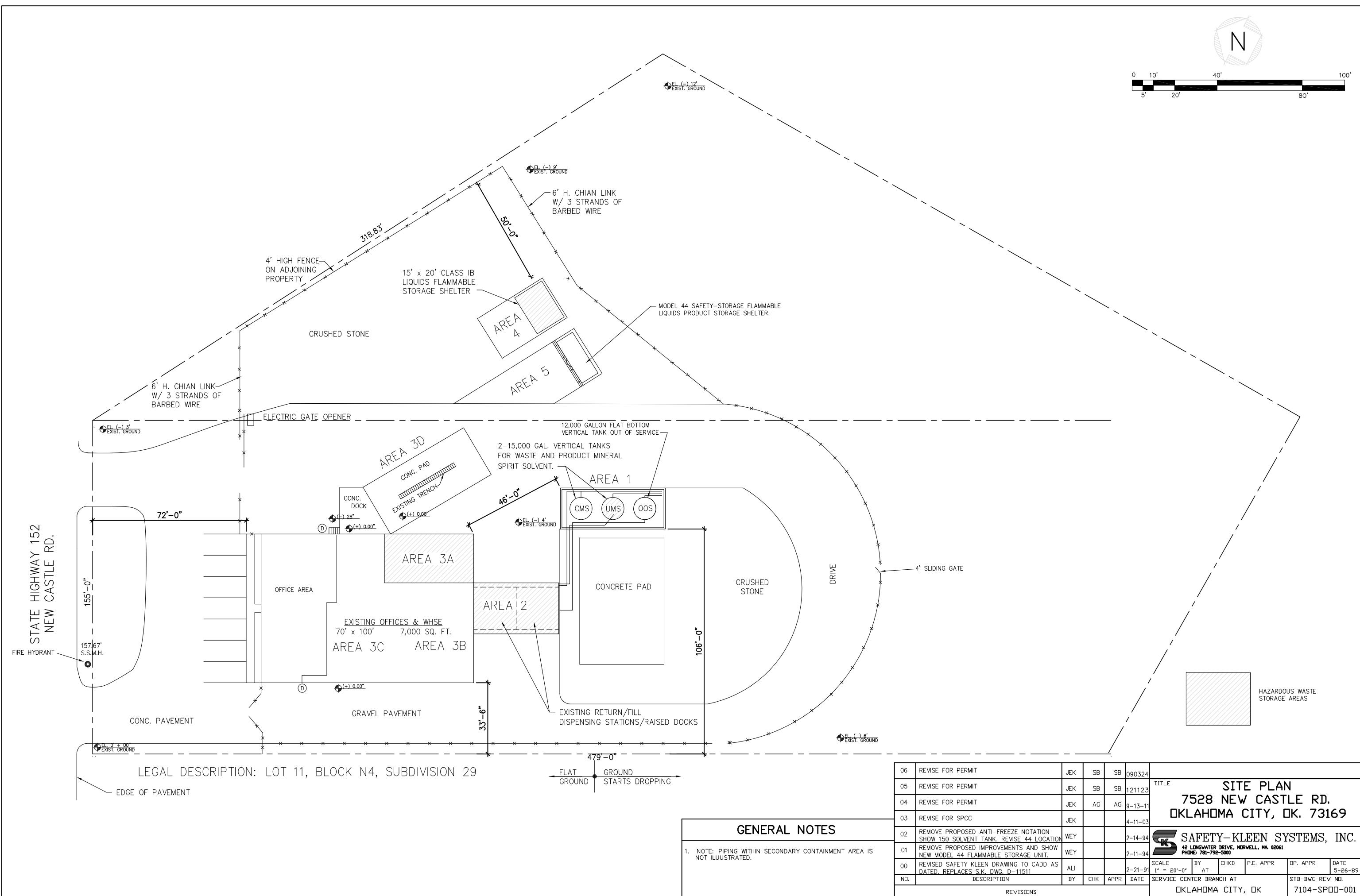
### Various Transfer Industrial Wastes

Exhibit B-2



## Unit Process for the Handling of Spent Parts Washer Solvent





OKD980878474

Safety-Kleen Systems, Inc.  
Oklahoma City, OK  
December 2023

## APPENDIX C

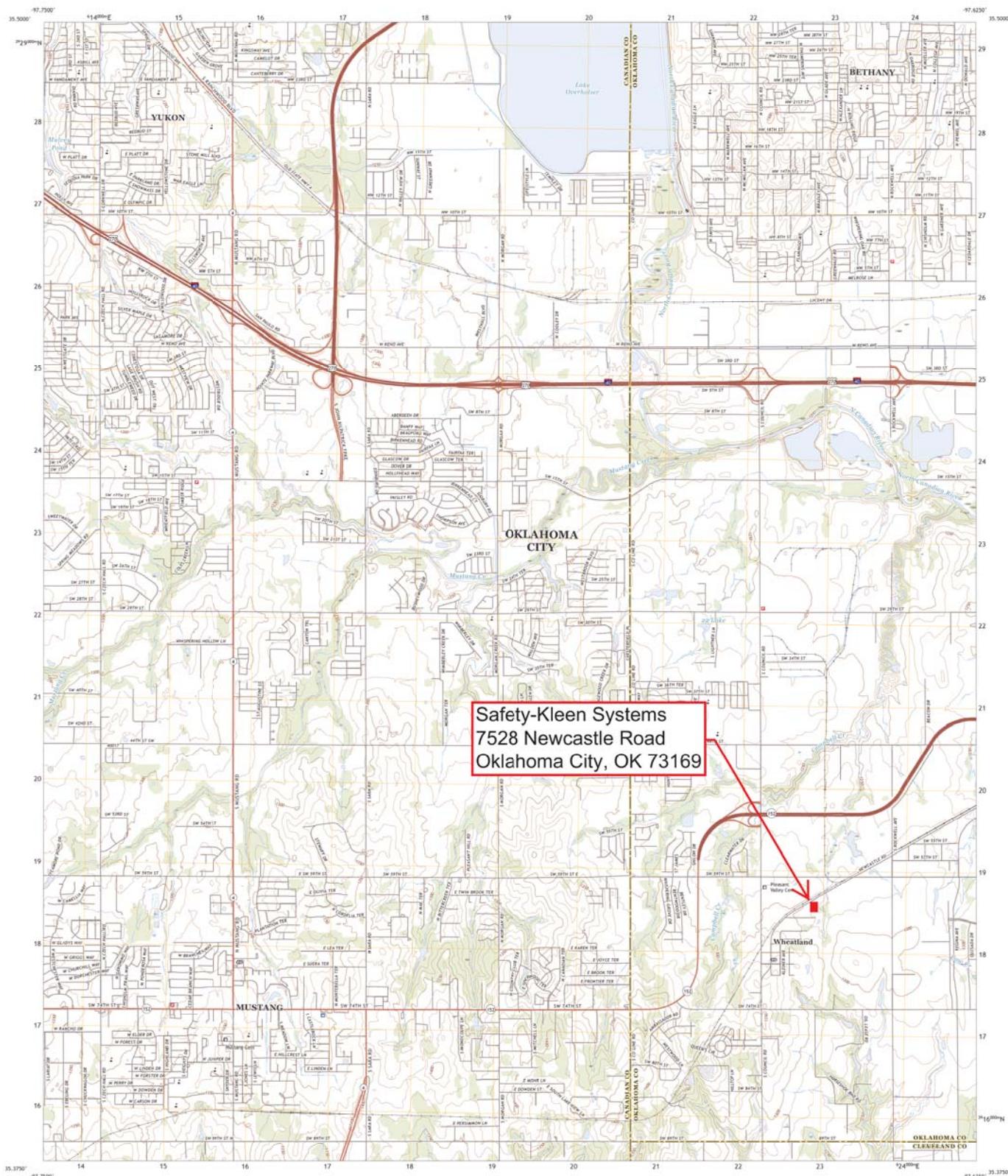
**Exhibit C-1 Site Location Map**

**Exhibit C-2 Topographic Map**

**Exhibit C-3 Wind Rose**

**Exhibit C-4 Site Plan**

**Exhibit C-5 FEMA Flood Insurance Map**



Produced by the United States Geological Survey  
 North American Datum of 1983 (NAD83), Projection and  
 1:250,000-meter grid (Universal Transverse Mercator, Zone 14S)  
 This map is a generalization of the original data and  
 is generalized for this map scale. Private lands within government  
 reservations may be shown. Obtain permission before  
 entering private lands.

Imagery  
 Roads  
 Names  
 Hydrography  
 Topography  
 Contours  
 Boundaries  
 Multiple sources; see metadata file 0101  
 Public Land Survey System  
 Wetlands

UTM GRID AND 10-METER ELEVATIONAL NORTH  
 ELEVATIONS AT CENTER OF SHEET

U.S. National Grid  
 100,000 in Square M  
 PE  
 Grid Zone Information

SCALE 1:24,000  
 1 0.5 0 1 KILOMETERS  
 1000 500 0 1000 METERS  
 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 FEET

CONTOUR INTERVAL 10 FEET  
 NORTH AMERICAN VERTICAL DATUM OF 1988  
 This map was produced to conform with the  
 National Geospatial Program US Topo Product Standard, 2011.  
 A metadata file associated with this product is draft version 0.4.1.

JOINTING QUADRANGLES

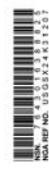
1	2	3
4	5	
6	7	8

1. Mustang  
 2. Bethany  
 3. Arnett  
 4. El Reno  
 5. Midwest City  
 6. Tulsa  
 7. Oklahoma City SW  
 8. Oklahoma City SE

ROAD CLASSIFICATION

Expressway  
 Secondary Hwy  
 Major Hwy  
 Local Road  
 Local Connector  
 State Route  
 US Route  
 Interstate Route

MUSTANG, OK  
 2018



[Data Selector](#)

[See Data Values](#)

[Data CSV Version](#)

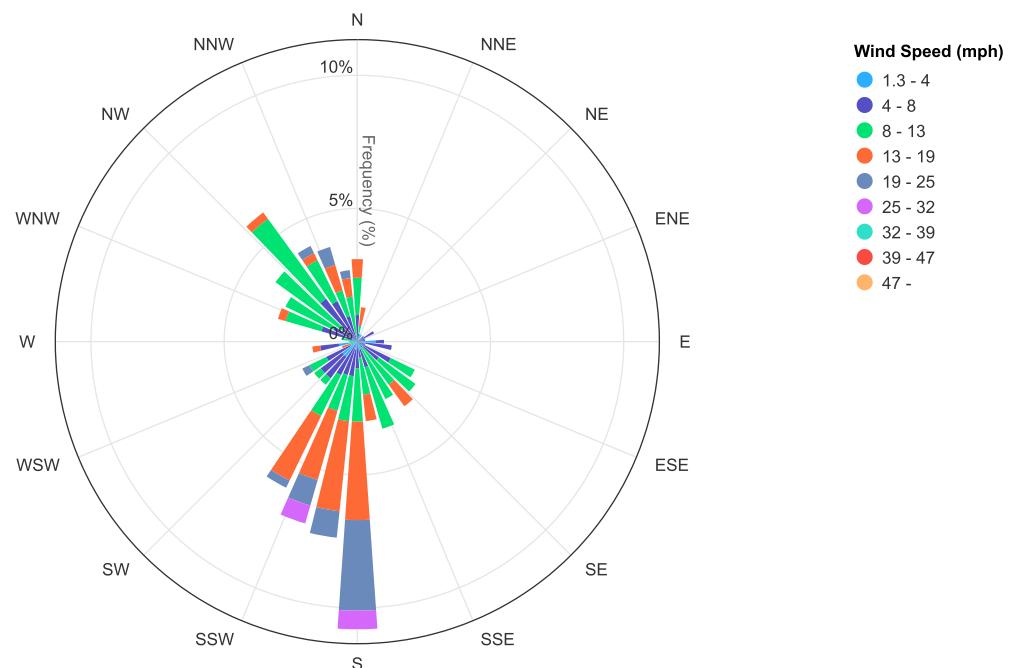
[Product Description](#)

[Send Feedback](#)

## OKLAHOMA CITY POST AP (OK) Wind Rose

Dec. 1, 2023 - Dec. 13, 2023

Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



Click and drag to zoom

### OKLAHOMA CITY POST AP (OK) - Wind Frequency Table (percentage)

Latitude : 35.5342	Start Date : Dec. 1, 2023	Sub Interval Windows
Longitude : -97.6469	End Date : Dec. 13, 2023	Start End
Elevation : 1297 ft.	# of Days : 13 of 13	Date Jan. 1 Dec. 31
Element : Mean Wind Speed	# obs : 294 of 312	Hour 0 23

(Greater than or equal to initial interval value and Less than ending interval value.)

Range (mph)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	
1.3 - 4	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.3	0.0	0.0	0.3	0.3	0.0	0.3	0.3	0.0	0.7	0.7	0.3	0.0	0.7	0.0	0.3	
4 - 8	1.0	0.3	0.0	0.0	0.0	0.3	0.7	0.3	0.3	0.3	1.0	0.3	1.4	0.7	0.3	0.0	0.7	0.3	1.0	1.0	1.0	1.4	1.0	1.0	1.0	1.0	0.0	0.7	0.0	0.0
8 - 13	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.7	1.7	2.4	2.4	1.4	2.0	1.7	1.4	1.7	0.3	0.3	0.7	0.3	0.0	0.3	0.3
13 - 19	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	3.7	3.4	2.7	2.7	0.0	0.0	0.0	0.3	0.3	0.0	0.0	
19 - 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	1.0	1.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
25 - 32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
32 - 39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
39 - 47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
47 -	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Total(%) 3.1 1.4 0.3 0.3 0.0 0.3 0.7 0.3 0.3 1.0 1.4 0.3 2.4 2.7 3.1 2.4 3.4 3.1 10.9 7.5 7.1 6.1 2.0 2.0 2.4 0.7 1.7 0.3 0.7

Calm

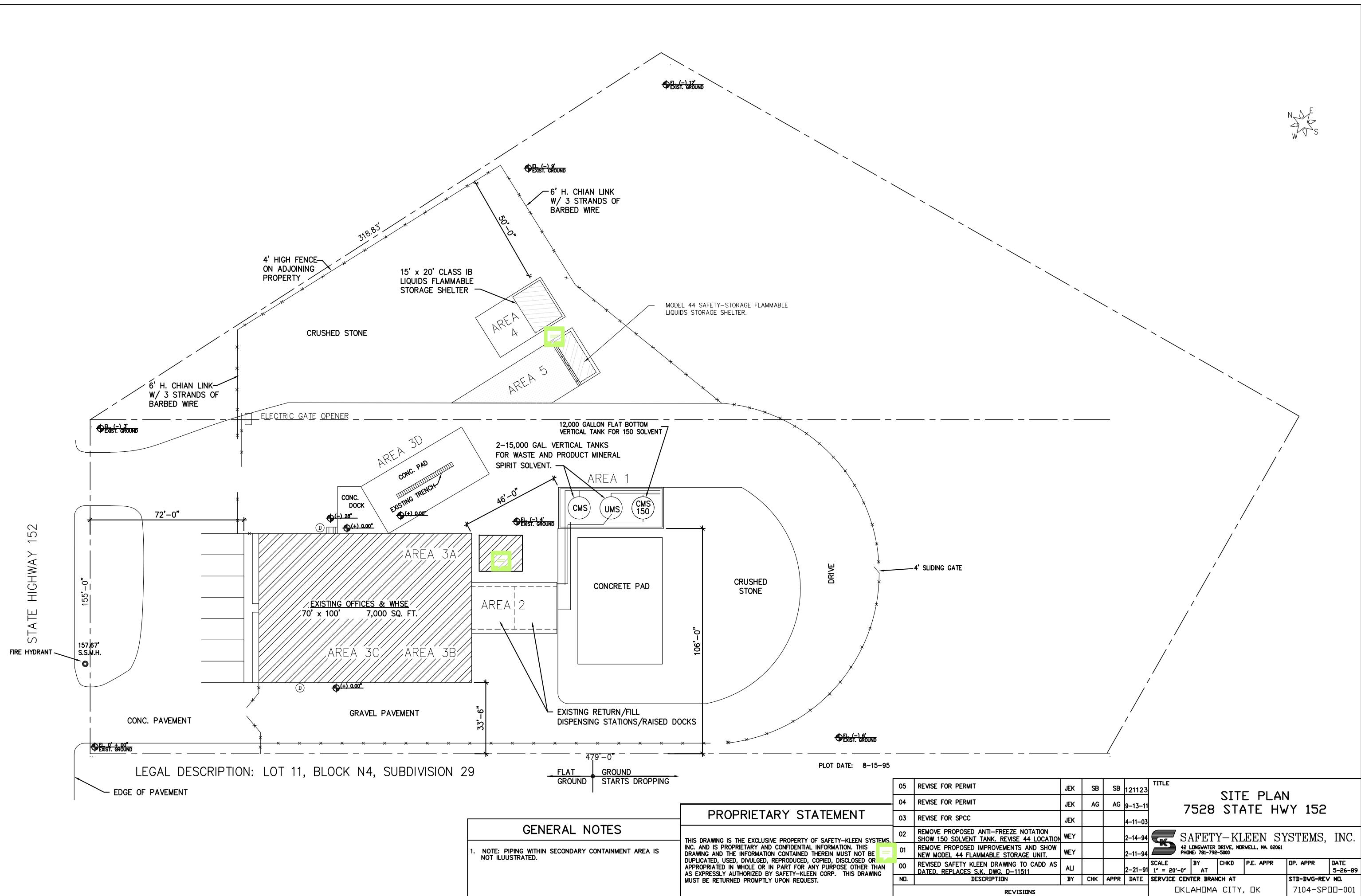
(<1.3)

Ave

Speed

9.0 12.1 3.4 3.4 0.0 4.7 5.8 4.7 5.8 4.5 5.7 6.0 7.1 8.7 10.6 9.5 7.9 10.9 16.4 13.5 14.3 12.0 5.6 5.4 8.4 12.1 6.4 11.4 5.7

Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 12/13/2023 10:40:43 AM EST





## APPENDIX D

Exhibit D-1 Safety-Kleen Annual Recharacterization Program Statistical Model Summary

Exhibit D-2 Annual Recharacterization Statistical Comparison

Exhibit D-3 Annual Recharacterization Sample Testing Protocol

Exhibit D-4 Annual Recharacterization Sampling Instructions

Exhibit D-5 2023 Annual Recharacterization Waste Code Assignments.

**Robert D. Gibbons, Ph.D**

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August 7, 2018

**A Review of the Safety Kleen Statistical Waste Characterization Plan**

In 1998, I prepared an annual statistical waste characterization plan for Safety Kleen based on a fully nonparametric approach to computing the 90% upper confidence limit for the 50<sup>th</sup> percentile of the distribution of analytic measurements. The motivation for the nonparametric approach was based on the non-normality of the distribution of analytic measurements observed at that time and even more importantly, the large proportion of measurements that did not detect the analyte in the sample; so called “non-detects.” Motivation for this methodology was laid out in U.S. EPA SW846 (1986) and more recently in the U.S. EPA Unified Statistical Guidance Document (2009) see section 21.2. As noted in the Unified Guidance, “The advantage of a nonparametric interval around the median is its greater flexibility to define confidence intervals on non-normal data sets.”

Recently, IL EPA has suggested that based on the OSWER 2002 Guidance, the nonparametric UCL that has been in use over the past 20 years should be replaced by the Chebyshev Inequality Method, which is a distribution free method. Using this method, the computed UCL for tetrachloroethylene (PCE) exceeded the regulatory standard whereas the nonparametric UCL did not. In the following, I try to shed light on this discrepancy.

To begin, nonparametric UCLs and distribution-free UCLs are in fact quite different. While neither method assumes a specific parametric form for the analyte distribution, the distribution free methods (e.g., Chebyshev Inequality Method) rely upon having a known population variance or standard deviation. Of course we never know the true standard deviation for the population, so practitioners typically substitute the observed standard deviation. As such, they are incorrect from the start. As noted in this guidance document, these distribution free methods break down when the detection frequency is low as is the case here. For PCE, only 8 of 31 measurements were detected (25.8%), and the largest measurement is an order of magnitude larger than the second largest measurement (51.72 vs. 5.8) suggesting the possibility that it is an outlier. As noted in the OSWER guidance, “If the proportion of non-detects is high (75%) or the number of samples is small ( $n < 5$ ), no method will work well.” This is true for the parametric or distribution free methods described in the document, but this is not true for the nonparametric methods (with  $n > 20$ ) that have been used by Safety Kleen for the past 20 years. In fact, the nonparametric methods are based only on the rank ordering of the data and do not require either known or estimated values of the mean and variance as the distribution-free methods do and which break down in the presence of large numbers of non-detects and/or extreme skewness “As skewness increases further, the Chebyshev method is not recommended”. The skewness of the PCE data produced by the large number of non-detects for which IEPA imputed DL/2 and the presence of a single extreme value is an example of extreme skewness. Non-detects and skewness have no effect on the nonparametric UCL used by Safety Kleen for the past 20 years and there are no distributional assumptions or summary statistics required to compute the UCL.

Sincerely yours,



Robert D. Gibbons Ph.D.

# Statistical Analysis of Annual Waste Characterization Data

Prepared by  
Robert D. Gibbons Ph.D.

for

Safety Kleen  
July 23, 1998

## 1 Introduction

Since 1990, Safety-Kleen has undertaken a major analytical study each year to document the contaminants in some of its most common waste streams to determine which TCLP waste codes should appear on the manifest for that waste. This Annual Waste Recharacterization Program is both expensive and extensive. Upon review, it appeared that regulatory agency instructions for how to interpret the data might not have been in line with current policy, as reflected in SW846. The general approach is based on development of an upper 90% confidence limit<sup>1</sup> for the true concentration of each constituent, which can in turn be directly compared to regulatory standards to determine if the waste code should or should not be added to a particular waste stream (e.g., Premium Gold Parts Washer Solvent 150). The regulatory basis for this type of comparison stems from U.S. EPA SW846 Chapter 9 (September 1986) guidance on determining if a waste stream is hazardous.<sup>2</sup> The primary complicating feature is the presence of large numbers of nondetects which raises serious question regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout.<sup>3</sup> Specifically, following U.S. EPA SW846, we construct a nonparametric 90% upper confidence limit (UCL) for the 50<sup>th</sup> percentile of the distribution (i.e., median), which is equivalent to the 90% UCL for the mean in the case of a symmetric distribution such as the normal distribution.

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<sup>1</sup>"Consequently, the CI employed to evaluate solid wastes is, for all practical purposes, a 90% interval." U.S. EPA SW846 (1986) chapter 9 page 6.

<sup>2</sup>"The upper limit of the CI for  $\mu$  is compared with the applicable regulatory threshold (RT) to determine if a solid waste contains the variable (chemical contaminant) of concern at a hazardous level. The contaminant of concern is not considered to be present in the waste at a hazardous level if the upper limit of the CI is less than the applicable RT. Otherwise the opposite conclusion is reached." U.S. EPA SW846 (1986) chapter 9 page 3

<sup>3</sup>"If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed. This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, page 6-8

## 2 Method

Following Chapter 9 of SW846, the 90% UCL for the mean concentration obtained from a series of  $n$  representative samples is to be compared to the appropriate regulatory standard to determine if the waste stream is hazardous. If the UCL exceeds the standard, the waste stream is considered hazardous. The applicant must compute the UCL that is appropriate for the specific distributional form of the data. Given the large number of nondetects for many of the constituents, it is difficult if not impossible to clearly identify the underlying distributional form of the data. In this case, the U.S. EPA guidance indicates that a nonparametric alternative should be used.<sup>4</sup>

Nonparametric confidence limits are derived as follows. Given an unknown  $P \times 100$ th percentile of interest (e.g. the 50th percentile or median),<sup>5</sup> where  $P$  is between 0 and 1, and  $n$  concentration measurements, the probability that any randomly selected concentration measurements being less than the  $P \times 100$ th percentile is simply  $P$  and the probability of exceeding the  $P \times 100$ th percentile is  $1 - P$ . In light of this, the number of sample values falling below the  $P \times 100$ th percentile out of a set of  $n$  measurements follows a Binomial distribution with parameters  $n$  and  $P$ .

The connection with the Binomial distribution can be used to determine an interval formed by a given pair of order statistics (i.e. ranked values) that will contain the percentile of interest, in this case the 50th percentile. Similarly, the Binomial distribution can also be used in constructing an upper limit (i.e. one-sided) for the percentile (e.g. a 90% upper confidence limit for the 50th percentile of the distribution). The computational formula for the cumulative binomial distribution  $B(x;n,p)$ , representing the probability of getting  $x$  or fewer successes in  $n$  trials with success probability  $p$  is given by

$$Bin(x;n,p) \equiv \sum_{i=0}^x \binom{n}{i} p^i (1-p)^{n-i}$$

To draw inference regarding the  $P = 50$ th percentile, we set  $p = .5$  in the previous equation. For a one-sided UCL we compute

$$1 - \alpha = 1 - Bin(U - 1; n, .5)$$

beginning from the sample median. We then increase  $U$  by one until in this case  $1 - \alpha$  is equal to at least .90. The smallest value of  $U$  that provides  $1 - \alpha \geq .9$  is then the order statistic (i.e., ranked value) that is the nonparametric 90% UCL for the 50th percentile of the distribution.

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<sup>4</sup> “If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed.” U.S. EPA, 1989

<sup>5</sup> “This interval is for the median concentration (which equals the mean if the distribution is symmetric).” U.S. EPA (1989), page 6-8

### 3 Illustration

Consider the following most recent 50 data values for PCE (D039) obtained from Premium Gold Parts Washer Solvent-150.

Table 1  
Premium Gold Parts Washer Solvent - 150  
50 most recent samples in order of increasing concentration  
in ppm

<50.000	<1.000	<0.100	<0.100	<0.100
<0.100	<0.100	<0.100	<0.100	<0.100
<0.100	0.110	0.200	0.200	0.220
0.230	0.260	0.510	0.870	0.880
1.000	1.300	1.500	1.800	2.000
2.700	2.700	3.300	5.400	7.000
<b>7.100</b>	12.000	12.300	17.200	19.700
20.000	20.000	21.200	23.600	32.300
51.100	52.500	136.000	211.000	286.000
508.000	635.000	771.000	940.000	2810.000

For  $n = 50$ ,  $p = .5$  and  $1 - \alpha = .9$ , we find that  $U = 31$  is the smallest order statistic that provides 90% confidence or more ( $1 - \alpha = .941$ ). As such, we select the 31st largest value in Table 1 which is 7.1 ppm as our UCL. Since 7.1 ppm is larger than the standard of 0.7 ppm, then the D039 waste code is required for this waste stream.

### 4 Conclusion

The data in the following package have been interpreted using the methodology described. The waste codes for each stream were determined as those parameters for which the 90% UCL for the median concentration was above the regulatory limit, based on review of the last two years of samples or the most recent 50 samples, whichever yielded the larger number of samples to consider.

## Annual Recharacterization Sample Testing Protocol

Spent Material	Test Parameters	Test Methods
Parts Cleaner Solvent	Flash Point by Pensky- Martens Closed Cup Tester	EPASW8491010
	pH	EPA SW 849 9045
	Apparent Specific Gravity and Bulk Density of Waste	ASTM D5057
	TCLP Metals	EPA SW 84611311, 6010, 7470, 7471
	TCLP Semi-Volatiles	EPA SW 8461311, 8270
	TCLP Volatiles	EPA SW 8461311, 8260
Bottom Sediment (from spent solvent tank and drum washers)	Same as above	Same as above
Spent Immersion Cleaner	Same as above	Same as above
Paint and Paint Gun Cleaner Waste	Same as above	Same as above
Aqueous Brake Cleaner	Same as above	Same as above
Dry Cleaning Waste (filter cartridges, filter powder and still bottoms)	Same as above	Same as above

Based on the process generating the waste streams outlined in the above table, 40 CFR 261.24-regulated herbicides and pesticides are not expected to be present; and are therefore, not included in the parameters tested for under the Annual Recharacterization Program.

Analysis is performed on a representative grab sample obtained from a single customer's waste container using a COLIWASA (Composite Liquid Waste Sampler) or a scoop when needed for materials such as Dry Cleaner Waste and Tank Bottoms Sediments.

# Statistical Comparison of Annual Recharacterization Data from California to the Rest of the Nation

Prepared by  
Robert D. Gibbons Ph.D.  
for  
Safety Kleen

March 2004

## 1 Introduction

Since 1990, Safety-Kleen has undertaken a major analytical study each year to document the contaminants in some of its most common waste streams to determine which TCLP waste codes should appear on the manifest for that waste. This Annual Waste Recharacterization Program is both expensive and extensive. The general approach is based on development of an upper 90% confidence limit for the true concentration of each constituent, which can in turn be directly compared to regulatory standards to determine if the waste code should or should not be added to a particular waste stream (e.g., Premium Gold Parts Washer Solvent 150). The regulatory basis for this type of comparison stems from U.S. EPA SW846 Chapter 9 (September 1986) guidance on determining if a waste stream is hazardous. As stated by U.S. EPA, "The upper limit of the CI for  $\mu$  is compared with the applicable regulatory threshold (RT) to determine if a solid waste contains the variable (chemical contaminant) of concern at a hazardous level. The chemical contaminant of concern is not considered to be present in the waste at a hazardous level if the upper limit of the CI is less than the applicable RT. Otherwise the opposite conclusion is reached" (U.S. EPA SW846 (1986) chapter 9 page 3). The primary complicating feature is the presence of large numbers of nondetects which raises serious question regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout this analysis. Again, as stated by U.S. EPA, "If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed. This interval is for the median concentration (which equals the mean if the distribution is symmetric)" (U.S. EPA *Statisti-*

*cal Analysis of Ground-Water Monitoring Data at RCRA Facilities*, April 1989, page 6-8). Specifically, following U.S. EPA SW846, Safety Kleen constructs a nonparametric 90% upper confidence limit (UCL) for the 50th percentile of the distribution (i.e., median), which is equivalent to the 90% UCL for the mean in the case of a symmetric distribution such as the normal distribution.

In review of this work, the State of California (DTSC/HML) has requested evidence that the data collected by Safety Kleen (SK) from California generators are representative of the data from the rest of the nation. Note that this involves a large number of statistical comparisons. There are as many as 11 waste streams and 33 constituents per waste stream (metals, volatile organics, semivolatile compounds, pH and flash point). In all, there are as many as  $11*33=363$  comparisons to be made. Using 95% confidence, there will be as many as  $363*.05=18$  comparisons that are significantly different by chance alone. In the following sections, a statistical methodology is described that will detect real differences when they are present (i.e., have a low false negative rate) and not identify differences that are consistent with chance expectations (i.e., have a low false positive rate).

## 2 Method

To compare the California data to the rest of the nation, data from all states except California will be used to construct a statistical prediction interval for the mean (or median in the nonparametric case) concentration obtained from the California generator samples. If the actual mean concentration for the California samples is within the prediction interval, then we can conclude with 95% confidence that the California concentrations are consistent with the concentrations observed across the nation. By contrast, if the California mean concentration is outside of the prediction interval, then we can conclude with 95% confidence that the California samples contain concentrations that are either higher or lower than those found in the rest of the country (for a particular waste stream and constituent). A two-sided interval will be used to determine if additional waste codes should be added or if some waste codes should be deleted from the California list.

In the following sections, statistical details of normal, lognormal, and nonparametric forms of these prediction intervals are provided.

## 2.1 Normal Prediction Intervals for the Mean of $m$ Future Measurements

In certain cases, we may be interested in comparing an average concentration from a small group to a much larger control population. For example, we may wish to compare the mean concentration for generators in California, to the concentration distribution for the rest of the country. One approach to solving this problem is to compute a normal prediction interval for the mean of  $m$  new samples, based on a background data set of  $n$  samples. For example, the  $m$  samples may be from all generators in California, and the  $n$  samples may be from a large number of generators across the nation (excluding California). The  $(1 - \alpha)100$  percent normal prediction interval for a single future mean of  $m$  samples is:

$$\bar{x} \pm t_{[n-1, 1-\alpha/(2k)]} s \sqrt{1/m + 1/n}, \quad (1)$$

where  $t$  is an upper percentage point of Student's  $t$ -distribution on  $n - 1$  degrees of freedom,  $s$  is the standard deviation of the  $n$  background samples,  $\bar{x}$  is the mean of the  $n$  background samples, and  $k$  is the number of statistical comparisons being performed.

## 3 Lognormal Prediction Intervals for the Median of $m$ Future Measurements

When the distribution of the  $n$  background measurements is shown to be log-normal, the  $(1 - \alpha)100\%$  lognormal prediction interval for the median of the next  $m$  measurements is:

$$\exp \left( \bar{y} \pm t_{[n-1, 1-\alpha/(2k)]} s_y \sqrt{1/m + 1/n} \right), \quad (2)$$

where  $\bar{y}$  and  $s_y$  are the mean and standard deviation of the natural log transformed data. While in the normal case, the analogous prediction interval is for the mean, in the lognormal case, the exponentiated limit is for the median value.

## 4 Lognormal Prediction Intervals for the Mean of $m$ Future Measurements

When the data are lognormally distributed and the comparison of interest is in reference to a future mean, we can use Land's coefficients to obtain an

approximate  $(1 - \alpha)100\%$  lognormal prediction interval for the mean of  $m$  future measurements. The lower prediction limit is

$$\exp \left( \bar{y} + .5s_y^2 + H_{\alpha/(2k)}s_y \sqrt{\frac{1}{m} + \frac{1}{n}} \right), \quad (3)$$

and the upper prediction limit is

$$\exp \left( \bar{y} + .5s_y^2 + H_{1-\alpha/(2k)}s_y \sqrt{\frac{1}{m} + \frac{1}{n}} \right), \quad (4)$$

where  $H_\alpha$  and  $H_{1-\alpha}$  are factors for deriving lognormal confidence intervals given by Land (1971, 1975).

## 5 Nonparametric Prediction Intervals for the Median of $m$ Future Measurements

In the nonparametric case, we can also construct a prediction interval for the median of  $m$  measurements based on a background of  $n$  samples. The idea is to identify a pair of upper and lower order statistics of the  $n$  background measurements that will provide  $(1 - \alpha)100\%$  confidence of including the median California measurement. Note that for nonparametric intervals, the mean is not defined, so we must construct an interval for a future median. Fligner and Wolfe (1979), Guilbaud (1983) and Hahn and Meeker (1991) illustrate how the inverse hypergeometric distribution (Guenther, 1975) can be used to identify the appropriate order statistic of the  $n$  background measurements that will provide the desired level of confidence  $1 - \alpha$ , for given values of  $n$  and  $m$ . The inverse hypergeometric distribution is computed as the function

$$G(l, u, r, m, n) = \sum_{i=l}^u g(i, r + i, m, n) \quad (5)$$

where

$$g(i, r + i, m, n) = \frac{\binom{r-1}{i} \binom{n-r}{n-i}}{\binom{n}{m}} \quad (6)$$

and  $l$  is the lowest and  $u$  is the highest order statistic in the current interval,  $r$  is the median rank of the  $m$  new samples and  $n$  is the number of background measurements. To obtain a two-sided upper prediction limit (UPL), we iteratively solve for

$$G(l, u - 1, r, m, n) \geq 1 - \alpha/(2k), \quad (7)$$

for  $l$  and  $u$ .

## 6 Summary of Statistical Approach

In summary, depending on detection frequency and distributional form, normal, lognormal, or nonparametric prediction intervals were computed to compare the mean(median) concentration in California for each waste stream, and for each monitored constituent to the national database (excluding California). For normal and lognormally distributed constituents, we constructed a prediction interval for a future mean. If distributional testing for the national database (excluding California) did not support normality or lognormality, or if the detection frequency was less than 50%, we computed a nonparametric prediction interval for a future median concentration. Given the large numbers of constituents, we adjusted the individual comparison false positive rate (for each waste stream) to provide an overall false positive rate of 5% (i.e., 95% confidence) for each waste stream.

In those cases in which the actual mean(median) for the California data exceeded the UPL, a normal 90% upper confidence limit was computed for that waste, stream, and constituent, and that state-specific limit will be used to determine whether a specific waste-code should be associated with that waste stream in California.

## 7 Results

The previously described statistical methodology was applied to the following constituents:

Constituents used in the Analysis

<u>Constituent</u>
1,1-dichloroethylene
1,2-dichloroethane
1,4-dichlorobenzene
2,4,5-trichlorophenol
2,4,6-trichlorophenol
2,4-dinitrotoluene
2-methylphenol
Arsenic
Barium
Benzene
Cadmium
Carbon tetrachloride
Chlorobenzene
Chloroform
Chromium
Flash point
Hexachlorobenzene
Hexachlorobutadiene
Hexachloroethane
Lead
M+p-cresol
Mercury
Methyl ethyl ketone
Nitrobenzene
Pentachlorophenol
pH
Pyridine
Selenium
Silver
Tetrachloroethylene
Trichloroethylene
Vinyl chloride

in the following waste streams:

**Waste Streams used in the Analysis**

Waste Stream
Antifreeze
Auto Oil
Dry Cleaner Bottoms (DCB)
Aqueous Parts Washer (APW)
Immersion Cleaner
Industrial Oil
Paint Waste
Parts Washer Solvent (PWS) 105+150
Parts Washer Solvent 105R
Parts Washer Solvent 150
Parts Washer Solvent Sludge/Dumpster Mud (SDM)
Parts Washer Solvent Tank Bottoms (TB)

Overall, the majority of California data were consistent with the rest of the United States. 1,4DCB was less than the immersion cleaner LPL, whereas pH exceeded the UPL. For paint waste, TCE was less than the national LPL. For PWS 105+150, 1,4-DCB, 2-methylphenol, and benzene all exceeded the corresponding national UPLs. For PWS-SDM, pH exceeded the UPL. For PWS-TB, flash point was less than the national LPL.

For these waste streams and constituents, the California 90% normal UCLs (which can be used in place of the national values) were

**Constituents used in the Analysis**

Waste Stream	Constituent	CA UCL in mg/L	Nat'l UCL in mg/L	Reg Limit in mg/L
Antifreeze	PCE	272	NA	0.7
Auto Oil	PCE	696	NA	0.7
Auto Oil	Benzene	21	NA	0.5
Immersion Cleaner	1,4-DCB	80	140	7.5
Immersion Cleaner	pH	10.5	10	2-12.5
Paint Waste	TCE	64	27.1	0.5
Parts Washer Solvent 105+150	1,4-DCB	.54	<2.0	7.5
Parts Washer Solvent 105+150	2-methylphenol	44	1.8	200
Parts Washer Solvent 105+150	Benzene	8.7	2.2	0.5
Parts Washer Solvent SDM	pH	8.7	8.2	2-12.5
Parts Washer Solvent TB	Flash Point	Too Few (n=2)	145	140

These UCLs can be used in place of the national UCLs; however, I do not recommend use of the California UCLs for PCE in antifreeze and auto oil, because they are elevated due to a single outlying value. All analytical Tables are presented in the Appendices.

## References

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- [6] Land, C.E. (1975) Tables of confidence limits for linear functions of the normal mean and variance. In, *Selected Tables in Mathematical Statistics*, Vol. III, American Mathematical Society, Providence R.I., pp 385-419.
- [7] Wilk, M.B., and Shapiro, S.S. (1968). The joint assessment of normality of several independent samples. *Technometrics*, 10, no 4. 825-839.

# Annual Re-characterization Sampling Instructions

Good sampling practices are critical to the success of the Annual Re-characterization program. Please take your time when pulling samples, ensuring that all of the following requirements are fulfilled.

## Training Requirements and Supporting Documentation

### **✓SAFETYFIRST!**

- ✓ Personal Protective Equipment (PPE) – Follow requirements in attached PPE Matrix
- ✓ Prior to shipping samples by FedEx Air, you must complete the following:
  - IATA Dangerous Goods Regulations Training.
  - Sample shipping requirements are outlined in [BOG O310-005 \(US\)](#) and [OC310-005/OC310-005 FC \(Canada\)](#) and [Clean Harbors TC 8.0 Handling, Packaging, and Transporting Samples policy](#)

## Supply Checklist

**NOTE:** To minimize opportunity for contamination, all AR sampling supplies are to be stored in facility office building until needed for actual sampling.

- ✓ Disposable COLIWASA (SK P/N 8941)
- ✓ Disposable plastic scoop
- ✓ Disposable plastic bucket if composite required (e.g., 6 gallon SK P/N 706)
- ✓ Sample Kits
  - SK P/N 3419 – Required for all dry cleaning related materials
  - SK P/N 82260 – Required for all other samples
- ✓ Housekeeping Supplies
  - PIG® Universal Heavy-Weight Mat
  - PIG® Heavy-Duty Maintenance Wipes
  - Plastic garbage bags
- ✓ Non sparking tools
- ✓ Grounding and bonding equipment
- ✓ Paperwork and Packaging Supplies
  - Chain of Custody form
  - Pen and Sharpie Marker
  - Packaging Tape

## Pre-sampling Preparation

- ✓ Time – allow 15 minutes per sample
- ✓ **IMPORTANT - Make arrangements with warehouse workers/material handlers to set aside containers from different customers. Each container sampled must be from a different customer.**
- ✓ Place sample kit freezer packs in the freezer 24 hrs prior to sampling event.
- ✓ Purchase bags of ice to supplement the freezer packs if shipping samples in warmer weather
- ✓ Fill out Chain of Custody (COC) forms completely

## How to fill out the Chain of Custody (COC) Form

1. Complete all fields in the COLLECTION INFORMATION section
2. **IMPORTANT - Both the Customer Name(s) and Customer Number(s) associated with the container(s) being sampled must be documented on the COC.**

In the event the analytical report shows atypical waste codes, we'll be able to track the sample back to the generator to discuss their specific process and possible source for contamination. Decision will need to be made regarding whether or not the generator's waste should remain as CORE, or is better handled through CWS.

3. A unique identification number must be assigned to each sample using the format **AR2024\_DEPT ID\_sample description** (e.g., AR2024\_77WIB\_Premium Solvent, etc.).
4. The same number must be written on the associated sample jar custody label so that the lab can match-up paperwork with samples upon receipt.
5. The sample collector must sign the RELINQUISHED BY section and enter the date and time of shipment.
6. Enter the air bill number on the COC form and make a copy of the form for your records.

## Sampling

The majority of facilities' WAPs require "grab samples". A select few, however, require composite samples. See section below on how to obtain a composite sample.

The following table summarizes how samples are typically taken. Keep in mind, the waste streams required for sampling are permit specific (i.e., not every facility will be required to sample every stream outlined in the below table).

- Sampling Methods/Practices to be used
  - ASTM D5495 - Standard Practice for Sampling with a Composite Liquid Waste Sampler (COLIWASA)
  - ASTM D5633 - Standard Practice for Sampling with a Scoop

Sample Type	Sampling Location	Sample Size/Kit	Homogenization Technique	Sampling Device
Aqueous Brake Cleaner	5 gallon poly carboy	1 quart TCLP kit	Grab sample using multiple COLIWASA pulls or pour contents into a new bucket  Stir/mix contents before sampling.	COLIWASA
Dry Cleaner Naphtha/PERC Bottoms/Filters	Drum	1 quart DOT SP-9168 Exemption Packaging	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA or Scoop
Immersion Cleaner	Drum	1 quart TCLP kit	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Paint Gun Cleaner Paint Waste	Drum	1 quart TCLP kit	Grab sample  Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Parts Washer Solvent Bulk Tank	Tank	1 quart TCLP kit	Grab sample	Tank valve or from tanker using a COLIWASA during annual draw down
Dumpster Sludge (APW and PWS)	Return and Fill	1 quart TCLP kit	Grab sample  Stir/mix up Return and Fill bottoms with scoop before sampling	Scoop

Sample Type	Sampling Location	Sample Size/Kit	Homogenization Technique	Sampling Device
Tank Bottoms (APW and PWS)	Tank	1 quart TCLP kit	Grab sample during tank clean out Stir/mix up tank bottoms with scoop before sampling	Scoop
PWS 105	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
PWS Premium	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
APW	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Antifreeze	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA
Used Oil	Drum	1 quart TCLP kit	Grab sample Stir/mix content of drum with COLIWASA before sampling	COLIWASA

1. Bring all items in the *Equipment Checklist*, including frozen sample kit freezer packs/ice, with you to the sampling location.
2. Wear required PPE
3. Obtain a representative sample using a disposable plastic scoop or disposable COLIWASA

**IMPORTANT – a new scoop or COLIWASA must be used for each sample pulled**

4. Place all sampling debris in plastic garbage bag(s) and dispose of as Branch Generated Debris.
5. Ensure the sample jar lid is tight. Seal the lid to the jar by wrapping with packaging tape.
6. Attach *Custody Seal* across the lid of the jar in such a way that the seal must be broken to open the jar. The *Custody Seal* must be signed by the sampler and contain the date, time the sample was pulled, and unique sample ID (ID must follow required format and match the ID written on the accompanying COC).
7. Place the sample jar(s) into a "Samples Only" refrigerator until ready to ship.
8. When ready to ship, place the quart sample jar into the TCLP kit with frozen freezer packs. Use additional bagged ice if shipping during warm temperatures. Close up the Styrofoam cooler and place the COC paperwork on top before sealing up the cardboard shipping box using shipping tape.

**IMPORTANT - Ship samples Monday thru Wednesday via FedEx Priority Overnight to ensure they arrive Thursday or Friday when lab personnel are available to unpack and place in a refrigerator.**

**TestAmerica Laboratory**  
**Attention: Sarah Steadman 412-963-2422**  
**301 Alpha Drive, RIDC Park**  
**Pittsburgh, PA 15238**

**CRITICAL – SAMPLE(S) MUST ARRIVE COLD AND LAB MUST ANALYZE WITHIN 14 CALENDAR DAYS FROM THE DATE YOU PULLED THE SAMPLE(S). IF SAMPLES ARRIVE WARM OR EXCEED 14 DAYS, YOU WILL NEED TO RESAMPLE.**

## **Sampling using a COLIWASA**

- Ensure the COLIWASA is functioning properly before use. Confirm that the stopper is securely attached to the plastic rod and provides a good seal when in the closed position.
- **OPEN** the COLIWASA and **SLOWLY** lower into the container until it touches the bottom. The COLIWASA must not be lowered with the stopper in the closed position. Opening the stopper after the tube is submerged will cause material to flow in from the bottom layer only, resulting in gross over-representation of that layer. If lowered too fast, a non-representative sample will result.
- When the COLIWASA touches the bottom of the container, pull up on the stopper mechanism to close the COLIWASA.
- Slowly withdraw the COLIWASA from the container while wiping the outside of the COLIWASA with a disposable wipe.
- Place the end of the COLIWASA into the 32-oz sample jar and discharge contents by slowly opening the stopper mechanism.

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

- Use a new disposable plastic bucket
- Use a new COLIWASA for each customer container sampled
- For each customer container sampled, you'll actually need to pull the following two samples
  - Place one COLIWASA volume into the compositing bucket
  - Using the same COLIWASA, fill a new quart glass jar (SK P/N 8895). This sample jar needs to be labeled with the customer name and number associated with the container that is being sampled. This sample will serve as a retain in the event analytical on the composite shows atypical results and we need to analyze all associated customer samples. These retards need to be stored until analytical on the composite sample is reported.
- After sampling all customer containers, mix the contents of the bucket.
- Use a COLIWASA to pull a sample of the mixture from the bucket and submit this sample to TestAmerica following instructions above.

**Geoff Bond** Senior Development Engineer | Safety-Kleen | A Clean Harbors Company | Elgin, IL |  
geoff.bond@safety-kleen.com  
847.468.6735 (o) | 847.309.9665 (c) | 847.468.6770 (f) | safety-kleen.com





## **Safety-Kleen Waste Parts Washer Solvent Storage Tank Farms RCRA Subpart AA and BB Air Emission Standards for Equipment Leaks *In Heavy Liquid Service Determination***

### **Objective**

Determine whether waste parts washer solvent stored in bulk storage tanks at Safety-Kleen branches and recycle centers meets the definition of '***In light liquid service***' or '***In heavy liquid service***' per definitions provided in 40 CFR Subpart AA and BB regulations.

### **Applicable Definitions Per 40 CFR §63.1001**

- ***In light liquid service*** means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 °C is equal to or greater than 20 percent by weight of the total process stream, and the fluid is a liquid at operating conditions.
- ***In heavy liquid service*** means that the piece of equipment is not in gas/vapor service or in light liquid service.

### **Procedure**

- More than 50 individual samples were pulled from bulk waste parts washer solvent storage tanks at Safety-Kleen branches across the country.
- Samples were sent to an independent accredited laboratory for volatile (SW846 8260) and semi-volatile (SW846 8270) analysis by gas chromatography.
- TABLE I summarizes all contaminants identified by the laboratory and lists the highest concentration found in the data set (n > 50) for each contaminant identified.
- Contaminants highlighted in red have a vapor pressure that exceeds 0.3 kPa at 20°C

NOTE: Vapor pressures of individual solvents obtained from the *National Institute of Health's (NIH) PubChem* database

<https://pubchem.ncbi.nlm.nih.gov/>

- The total concentration of contaminants with a vapor pressure > 0.3 kPa at 20°C = 4,164 ppm or 0.42%

### **Conclusion**

Since the total concentration of organic components with a vapor pressure > 0.3 kPa at 20°C is less than 20% by weight of the total process stream, waste parts washer solvent stored in bulk storage tanks meets the RCRA definition of '***In heavy liquid service***'.



TABLE I

Contaminant	Concentration (ppm)	Vapor Pressure > 0.3 kPa @ 20°C
2,4 - Dinitrotoluene	0.32	No
Chlorobenzene	0.36	Yes
2,4,5 - Trichlorophenol	0.43	No
1,4 - Dichlorobenzene	0.47	No
Hexachlorobenzene	0.47	No
Benzene	7.0	Yes
3 & 4 – Methylphenol	20	No
Trichloroethylene	87	Yes
2-Butanone (MEK)	470	Yes
Tetrachloroethylene	3,600	Yes

In addition, Safety-Kleen determined the vapor pressure of the waste parts washer solvent stored in the bulk storage tanks at branches and recycle centers across the country.

- Representative samples of waste parts washer solvent were pulled from three different bulk storage tanks and sent to a lab for vapor pressure determination.
- Bulk storage tanks sampled were located at three different Safety-Kleen solvent recycle centers located in three different states. Each tank consisted of commingled waste parts washer solvent from thousands of different customers.
- Samples were analyzed by *Phoenix Chemical Laboratory*, an independent 3<sup>rd</sup> party ISO 9001 conforming lab
- Vapor pressure determined via *ASTM D2879 - Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscopic* and summarized in TABLE II below.

TABLE II

Sample ID	Vapor Pressure @ 20°C (kPa)
Spent PW Solvent Sample 1	0.13
Spent PW Solvent Sample 3	0.09
PW Solvent Tank 117 Core	0.10
<b>AVERAGE</b>	<b>0.11</b>

# BRANCH PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

## WORKPLACE HAZARD ASSESSMENT SUMMARY 2015

TASK								
AQUEOUS BLENDING (MANUAL)	Yes (Np)	Yes	Yes*		S.T w/M	Goggles	Yes, w/pneumatic	
AQUEOUS SERVICE - COLD	Yes (Np)	Yes		Yes	S.T w/M	Yes		
AQUEOUS SERVICE - HEATED	Yes (Np)	Yes		Yes	S.T w/M	Yes		
AQUEOUS TEST ANALYSIS	Yes (Nr or Cp)	Yes		Yes	S.T w/SR	Yes		
BRAKE CLEANING (ABC)	Yes (Np)	Yes		Yes	S.T w/M	Yes		
COOLANT SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
CONTAINERIZED WASTE (CWS)	Yes (Np)	Yes		Yes	S.T w/M	Yes		
DRY CLEANER SERVICE	Yes (Np)*	Yes		Yes	S.T w/M	Yes		
GUN CLEANERS - UNVENTED	Yes (Np/Cp)*	Yes		Yes	S.T w/M	Yes		APR=HF or FF/Organic vapor
GUN CLEANERS - VENTED	Yes (Np/Cp)*	Yes		Yes	S.T w/M	Yes		
IMAGING SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
IMMERSION CLEANER SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
LIGHT BULB SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
MATERIAL HANDLING	Yes (Np)	Yes		Yes	S.T w/M	Yes		
OIL SERVICE	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
PARTS WASHER SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
RETURN/FILL OPERATIONS	Yes (Np)	Yes	Yes*	Yes	S.T w/SR	Yes	Yes, w/pneumatic	

# BRANCH PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

## WORKPLACE HAZARD ASSESSMENT SUMMARY 2015

TASK								
RETURN PRODUCT SERVICE	Yes (Np)	Yes		Yes	S.T w/M	Yes		
SAMPLING - FIELD	Yes (Nc)	Yes	Yes*	Yes	S.T w/SR	Yes		APR=FF/ ORG. vapor/acid gas
SPILL RESPONSE (INCIDENTAL)	Yes (Np)	Yes	Yes*	Yes	S.T w/SR	Yes		APR=HF or FF/ ORG. vapor/acid gas
TANK TRUCK LOAD/UNLOAD	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
TANK TRUCK TOP SAMPLING	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes		
VAC SERVICE	Yes (PVC or Np)	Yes		Yes	S.T w/SR	Yes	Yes, w/pump on	
VISITOR IN OPS AREAS				Yes	Closed toe	Yes		
WWF SERVICE	Yes (Nc)*	Yes		Yes	S.T w/SR	Yes		

Service Reps – must have Safety Vest available

### GLOVES

Cr = Cut Resistant glove (work glove)  
 Np = Supported Neoprene Glove (Outer Glove)  
 Cp = Chloroprene (5ml) (Inner Glove)  
 PVC = Poly Vinyl Chloride (Insulated option)  
 Nc = Nitrile Coated (work glove)

Cr\* = Cut Resistant glove (if chemical present – Supported Neoprene)  
 Nr = Nitrile (8ml) glove  
 (Np)\* = discard if show signs of breakthrough (breakthrough = discoloration, swelling, stiffness, etc.)  
 PVC = Poly Vinyl Chloride (Insulated option)  
 (Nc/Cp)\* = discard if show signs of breakthrough (breakthrough = discoloration, swelling, stiffness, etc.)

### APRON

Tychem QC apron w/ sleeves\* = discard if show signs of breakthrough (breakthrough = discoloration, loss of coating, stain on inside of apron, etc.)

### FOOTWEAR

S.T. w/M = Steel Toes with Metatarsal Guard  
 S.T. w/SR=Steel Toes with Slip Resistant Soles

### RESPIRATOR / CARTRIDGE TYPE

APR = half face (HF) or full face (FF) air purifying respirator  
 (facial hair shall not come in contact with the face piece seal)

### Parts Number - Arbill

Gloves - Cr –Kevlar Shell Nitrile Palm A14240, Np-SK 612, CP-151433, PVC - A141360, Nc-14056, Nr -151943. Respirator/Cartridge Type – HF-A500603, FF - A505820, Organic Vapor/Acid Gas- A500710, Organic Vapor – A500730.  
 Apron – Tychem QC apron w/sleeves – Medium – QC275BYLMD002500, Large – QC275BYLLG002500, Ex. Large – QC275BYLXL002500. Hard Hat – 475360-BL27128 - BL6400. Safety Vest – A209283. Goggles – A303630. Hearing Protection – Muffs – A401800, Plugs – A403770.

### Parts Number – Century Vallen

Gloves - Cr – Kevlar Shell Nitrile Palm EDM 11-500, Np-SK 612, Cp – GLONPG888-M, PVC-EDM 4-412, Nc-EDM 37-145, Nr-BST 8005PF-L  
 Respirator/Cartridge Type – HF-3MS 6200, FF-3MS 6800, Organic Vapor/Acid Gas/HEPA-3MS 60923, Organic Vapor/HEPA-3MS 60921, HEPA - 3MS 2096, Dusk Mask - 3MS8511.  
 Apron – Tychem QC apron w/sleeves - LAK 527. Hard Hat – DSI HP542R -02 – SK Logo. Safety Vest – NORTV52B4/(SIZE). Goggles – UVXS700C. Hearing Protection – Muffs – PLT H10A. Plugs – EAR 312 – 1201.



## **Safety-Kleen Waste Parts Washer Solvent Storage Tank Farms RCRA Subpart AA and BB Air Emission Standards for Equipment Leaks *In Heavy Liquid Service Determination***

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PW Solvent Tank 117 Core	0.10
<b>AVERAGE</b>	<b>0.11</b>

## 2024 AR Codes and SKDOTS - National

Waste Stream	Description/Subcategory	Changes from: 2022 to 2023	2023 National Waste Codes	2023 NATIONAL Profile	Changes from: 2023 to 2024	2024 National Waste Codes	2024 NATIONAL Profile	
Branch Contaminated Debris (Solid would not carry D001)		N/A	No Change	F002, F003, F005, D001, D004, D005, D006, D007, D008, D008, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D028, D030, D030, D032, D033, D034, D035, D036, D037, D038, D038, D040, D041, D042, D043	Refer to CH Outbound	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D028, D030, D030, D032, D033, D034, D035, D036, D037, D038, D038, D040, D041, D042, D043	Refer to CH Outbound	
Immersion Cleaner		N/A	No Change	D039, D040	153534	No Change	D039, D040	153634
Parts Washer Solvent 105 Virgin		under 100 lbs (RQ)	No Change	D001, D018, D039, D040	150045	No Change	D001, D018, D039, D040	150045
Bulk MS Solvent		over 1000 lbs (RQ)			150085			150085
Parts Washer Solvent Sludge/Dumpster Mud		N/A	No Change	D001, D018, D039, D040	157045	No Change	D001, D018, D039, D040	157045
Parts Washer Solvent Tank Bottoms (bulk)		N/A	No Change	D001, D018, D039, D040	Refer to CH Outbound	No Change	D001, D018, D039, D040	Refer to CH Outbound
Premium (150) / PFR / PDF Mill Spec Solvent		N/A	No Change	D039	150055	No Change	D039	150055
Paint Gun Cleaner		DF container (no DOT SP)			150055			150055
Paint Gun Cleaner		under 100 lbs (RQ)	No Change	F003, F005, D001, D018, D035, D039, D040	150380	No Change	F003, F005, D001, D018, D035, D039, D040	150380
Paint Gun Cleaner (Premium Thinner)		over 100 lbs (RQ)			150425			150425
Paint Gun Cleaner (Premium Thinner)		under 100 lbs	No Change	F003, F005, D001, D018, D035, D039, D040	158380	No Change	F003, F005, D001, D018, D035, D039, D040	158380
Clear Choice Paint Gun Cleaner		over 100 lbs (RQ)	No Change	F003, D001, D018, D035, D039, D040	150426	No Change	F003, D001, D018, D035, D039, D040	150427
Paint Waste Other		Any size container	No Change	F003, F005, D001, D018, D035, D039, D040	150375	No Change	F003, F005, D001, D018, D035, D039, D040	150375
Universal Paint Gun Cleaner		N/A	No Change	D001, D018, D035, D039, D040	403901294	No Change	D001, D018, D035, D039, D040	403901294
Dry Cleaner (Perc) Bottoms		N/A	No Change	D002, D007, D035, D040	150589	No Change	D002, D007, D035, D040	150589
Dry Cleaner (Perc) Filters		N/A	No Change	F002, D007, D035, D040	150621	No Change	F002, D007, D035, D040	150621
Dry Cleaner (Perc) Separator Water		N/A	No Change	F002, D007, D039, D040	150520	No Change	F002, D007, D039, D040	150520
Dry Cleaning Napthi Bottoms		N/A	No Change	D001, D007, D039, D040	150422	No Change	D001, D007, D039, D040	150422
Dry Cleaning Napthi Filters		N/A	No Change	D001, D007, D039, D040	150423	No Change	D001, D007, D039, D040	150423
Dry Cleaning Napthi Separator Water		N/A	No Change	D001, D007, D039, D040				

## **APPENDIX E**

**Exhibit E-1 Tank Farm Plan**

**Exhibit E-2 Drum Washer Schematic and Details**

**Exhibit E-3 Moorman Brothers Tank Gauge Installation Details**

**Exhibit E-4 Spent Parts Washer Solvent High Level Alarm System Details**

**Exhibit E-5 Spent Parts Washer Solvent 16,800 Gallon Vertical Storage Tank**

**Exhibit E-6 Tank Farm Concrete Construction Details**

**Exhibit E-7 Class 1B Shelter Construction**

**Exhibit E-8 Example Inspection Log Sheets**

**Exhibit E-9 Tank Integrity Test**

DIKE VOLUME CALCULATION

FORMULAE USED:

$\pi r^2 \times 7.48 \text{ GAL./CU. FT.}$  = TANK DISPLACEMENT VOLUME (GAL.'S)

$L \times W \times H$  (7.48 GAL./CU. FT.) = DIKE VOLME (GAL.'S)

$\pi \times (\text{TANK RADIUS})^2 \times 6.0 \text{ FT.}$  (6'-0")

$\pi \times (\text{TANK RADIUS})^2 \times 5.25 \text{ FT.}$  (5'-3")

$L \times (\text{DIKE LENGTH})$  = 52.0 FT. (52'-0" I.D.)

$W \times (\text{DIKE WIDTH})$  = 21.0 FT. (21'-0" I.D.)

$H \times (\text{DIKE HEIGHT})$  = 4.0 FT. (4'-0")

$(52.0 \text{ FT.}) \times (21.0 \text{ FT.}) \times (4.0 \text{ FT.}) \times 7.48 \text{ GAL./CU.FT.}$

VOLUME OF LARGEST TANK WITHIN DIKED AREA:

TANK DISPLACEMENT VOLUME:

$\pi \times (6.0 \text{ FT.})^2 \times (4.0 \text{ FT.}) \times 7.48 \text{ GAL./CU.FT.}$  = 3,384 GAL. X 1 TANK

$\pi \times (5.25 \text{ FT.})^2 \times (4.0 \text{ FT.}) \times 7.48 \text{ GAL./CU.FT.}$  = 2,590 GAL. X 1 TANK

MISC DISPLACEMENT FOR EQUIPMENT, PUMPS, PIPING, SKIDS, SUPPORTS ETC. (2%)

25yr/24 hr. RAINFALL EVENT (6.69")

$(52.0 \text{ FT.}) \times (21.0 \text{ FT.}) \times (6.69") \times 7.48 \text{ GAL./CU.FT.}$

TOTAL (EXCESS)

= 32,673 GAL (+)

= 16,800 GAL (-)

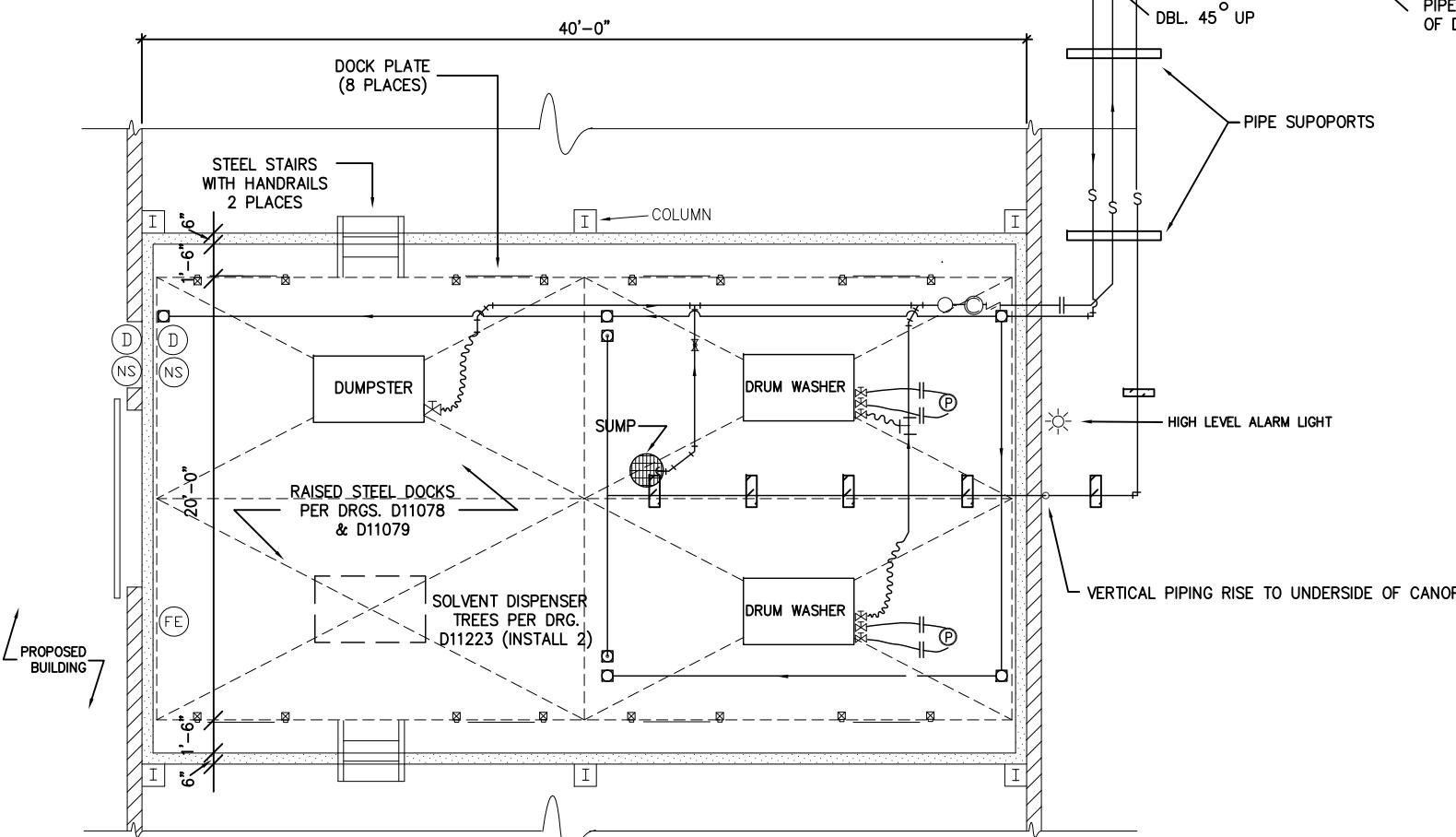
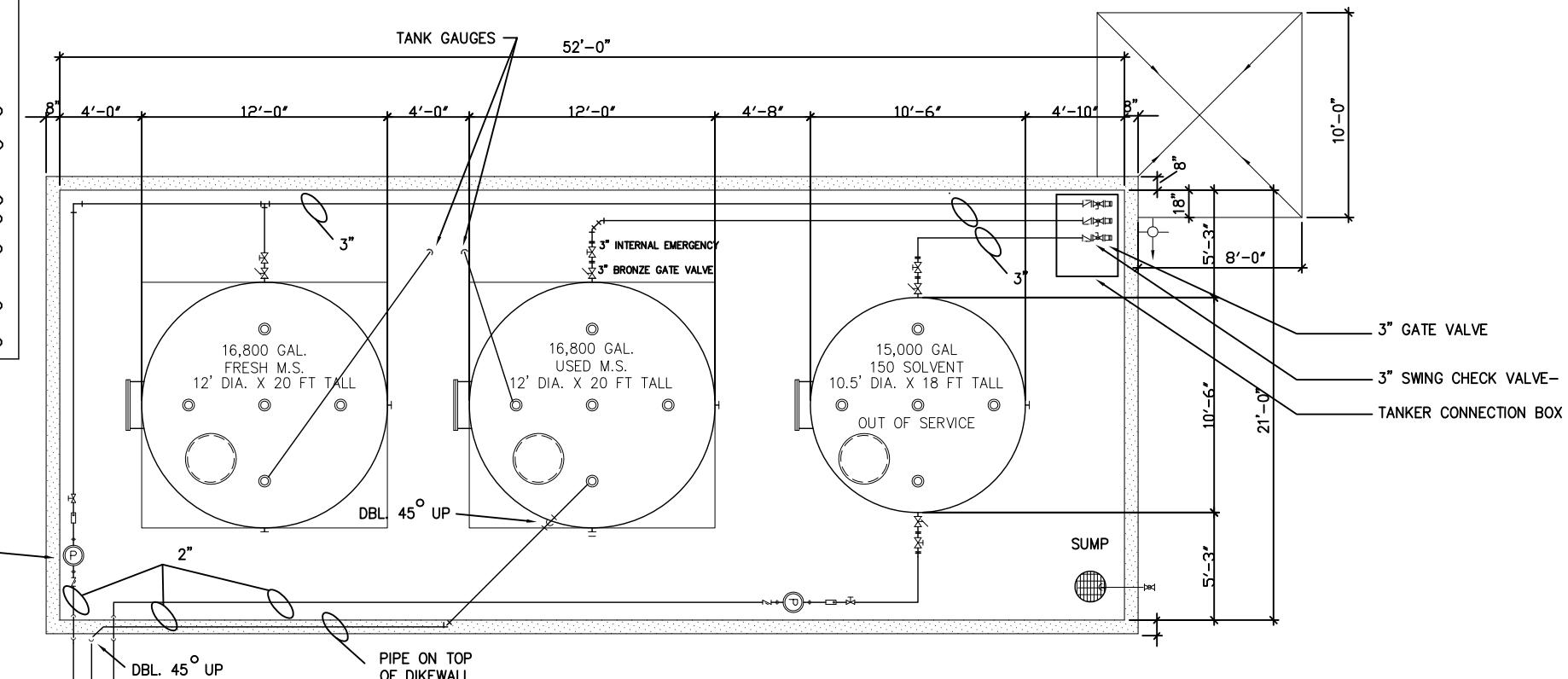
= 3,384 GAL. (-)

= 2,591 GAL. (-)

= 653 GAL. (-)

= 4,554 GAL. (-)

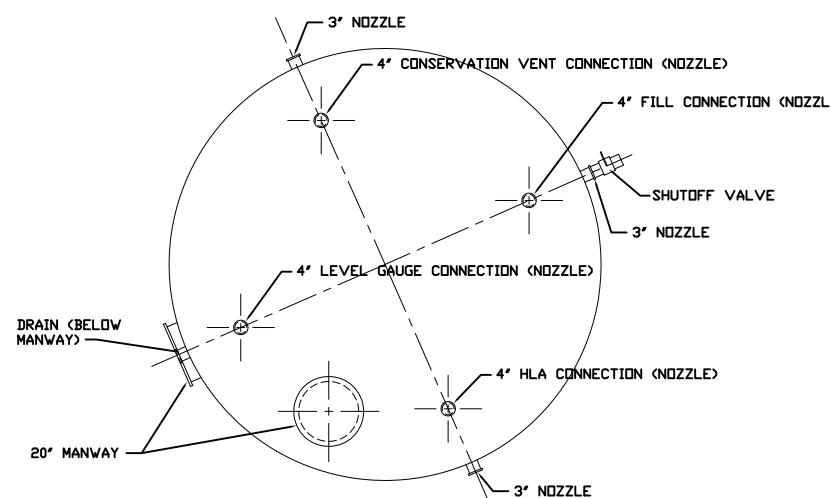
= 4,691 GAL. (+)



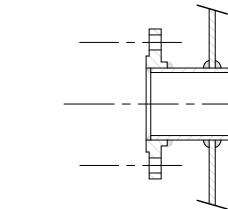
**TITLE** TANKFARM-R/F SHELTER PLAN  
7825 NEW CASTLE RD.  
OKLAHOMA CITY, OK. 73169

**S** SAFETY-KLEEN SYSTEMS, INC.  
42 LONGWATER DRIVE, NORWELL, MA. 02061  
PHONE: 781-792-5000

B	ISSUED FOR PERMIT	JEK	SB	SB	082924
A	REVISE NOTES/PIPING FOR PERMIT	JEK	SB	SB	121223
01	SHOW 15,000 GALLON FLAT BOTTOM TANK 150 SOLVENT USE REMOVE NOTES	WEY			3-2-95
00	REVISE SAFETY KLEEN DRAWING TO CADD AS DATED REPLACES SAFETY KLEEN DRAWING D11603	JV			3-8-91
ND.	DESCRIPTION	BY	CHK	APPR	DATE
					REVISIONS
					SCALE 1/4" = 1'-0" BY RD CHKD P.E. APPR DP. APPR DATE
					STD-DWG-REV NO. 10-23-86
					OKLAHOMA CITY, OK 7104-4100-300

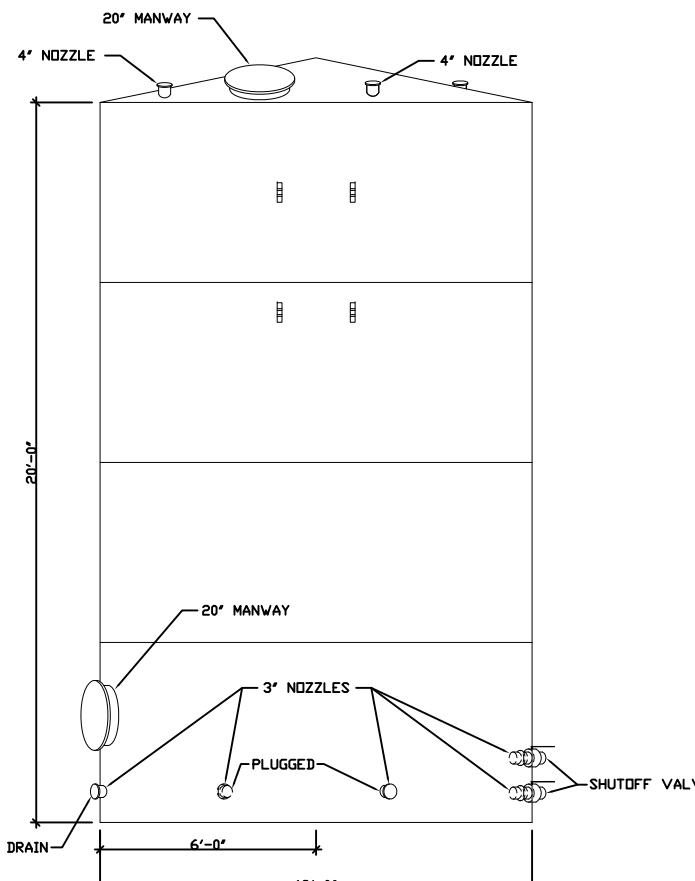


TOP OR SHELL CONNECTION  
U.L. 142 WELD  
PAGE 15, FIG. 11.2  
FLANGE WITHOUT  
REINFORCING PLATE



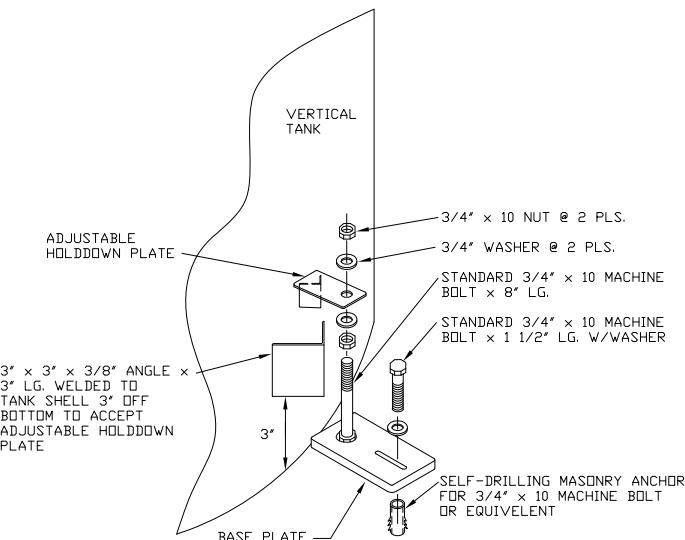
### TANK CONNECTIONS

NOT TO SCALE



### TANK PLAN AND ELEVATION

SCALE: 3/8" = 1'-0"



### TANK ANCHORING DETAIL

SCALE: NONE

### GENERAL NOTES

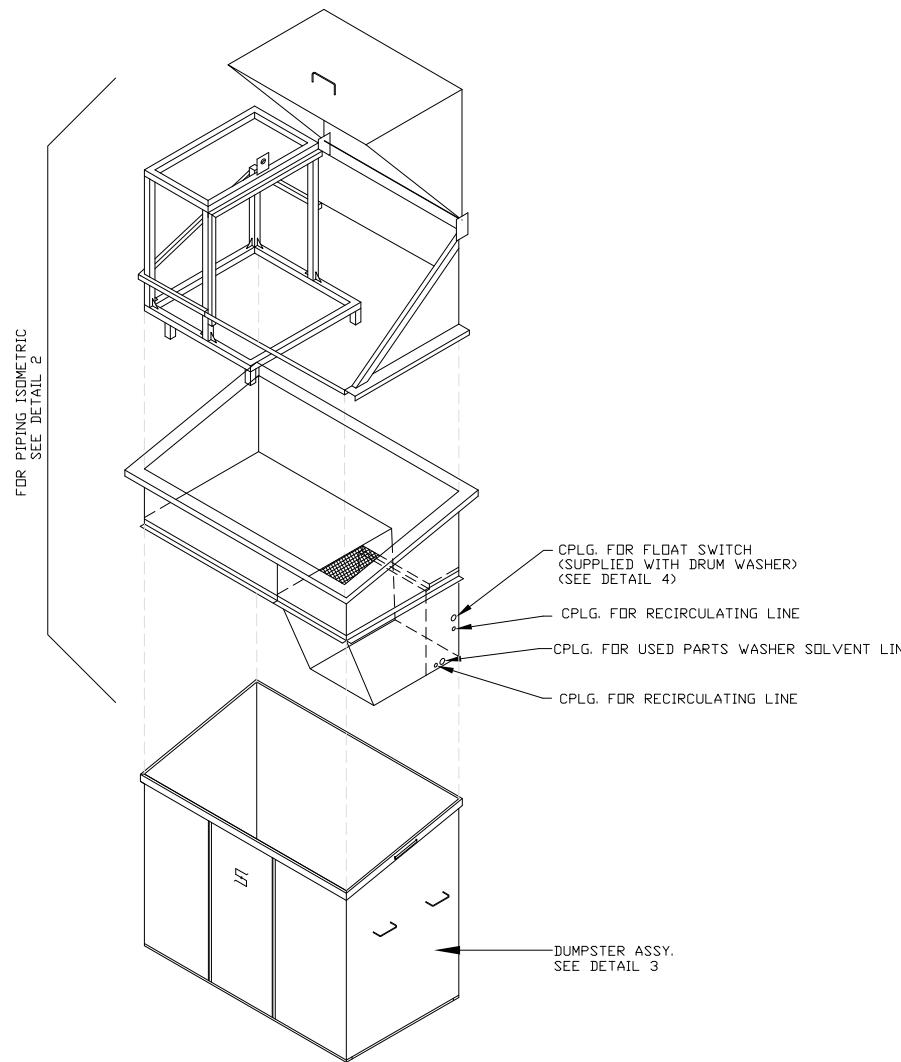
1. TANK SURFACES ARE TYPICALLY PREPARED IN ACCORDANCE WITH STEEL STRUCTURE PAINTING COUNCIL CODE #SSPC-SP3-63T.
2. TANKS TYPICALLY RECEIVE ONE COAT WHITE OXIDE PAINT & TWO COATS OF ALKYD BASE GLOSS WHITE STRUCTURAL ENAMEL.

TITLE 16,800 GALLON VERTICAL  
STORAGE TANK (LIDE IND.)  
7825 NEW CASTLE RD.  
OKLAHOMA CITY, OK. 73169  
42 LONGWATER DRIVE, NORWELL, MA 02061  
PHONE: 781-792-5000

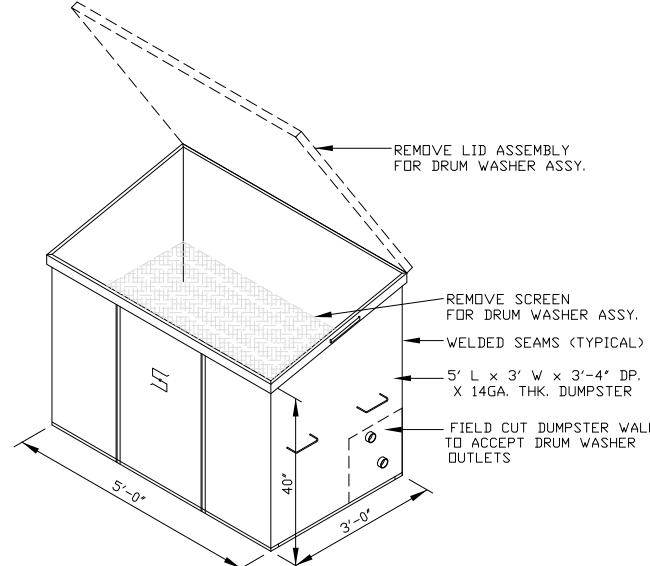
A	ISSUED FOR PERMIT	JEK	SB	SB	082924	SCALE NONE	BY JEK	CHKD GS	P.E. APPR	OP. APPR	DATE 8-11-04
NO.	DESCRIPTION	BY	CHK	APPR	DATE	SERVICE CENTER LOCATION	SC-DWG NO.	REV NO.			
REVISIONS											

OKLAHOMA CITY, OK 7104-4100-900 A

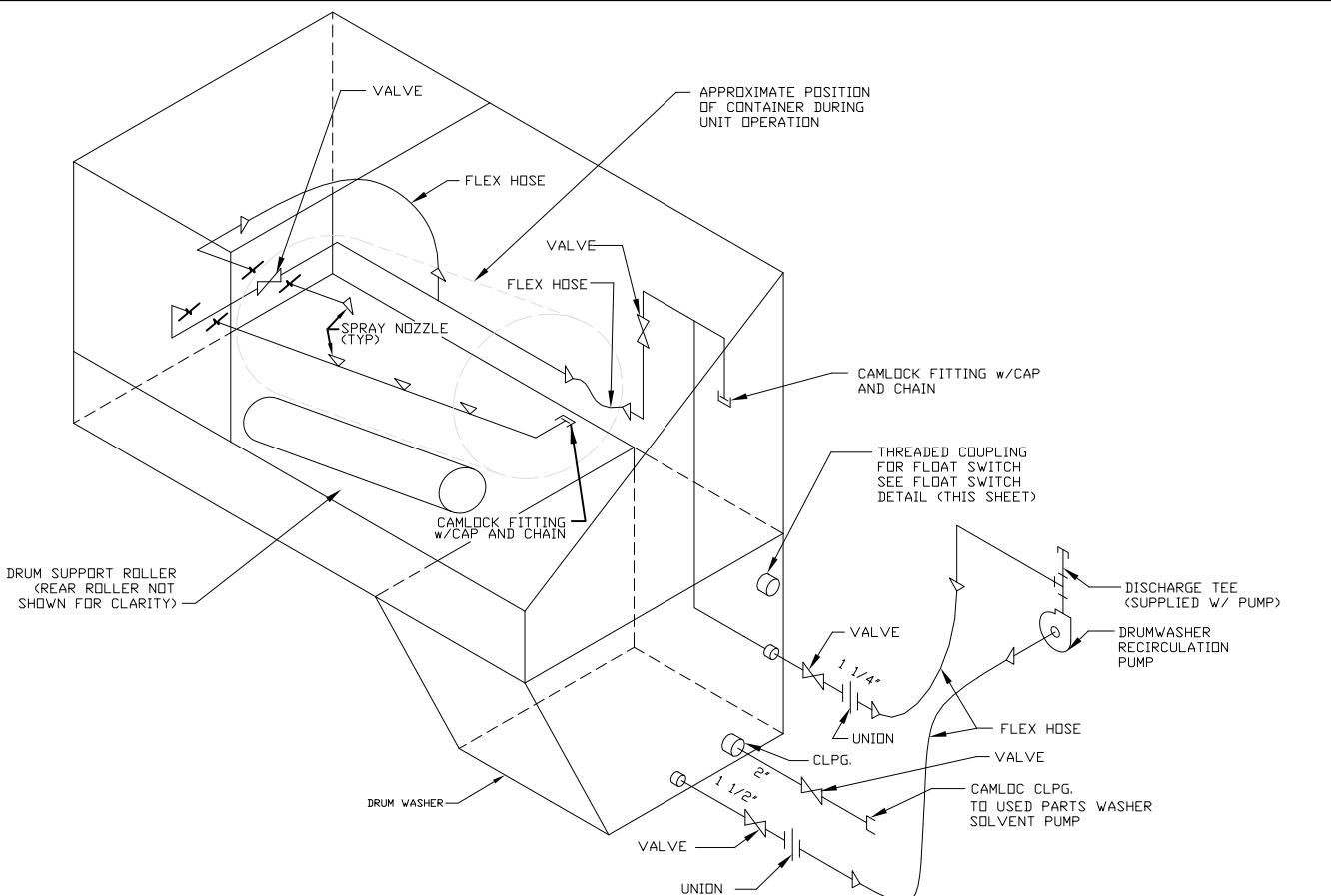
## DUMPSTER/BARREL WASHER ASSY - DETAIL 1



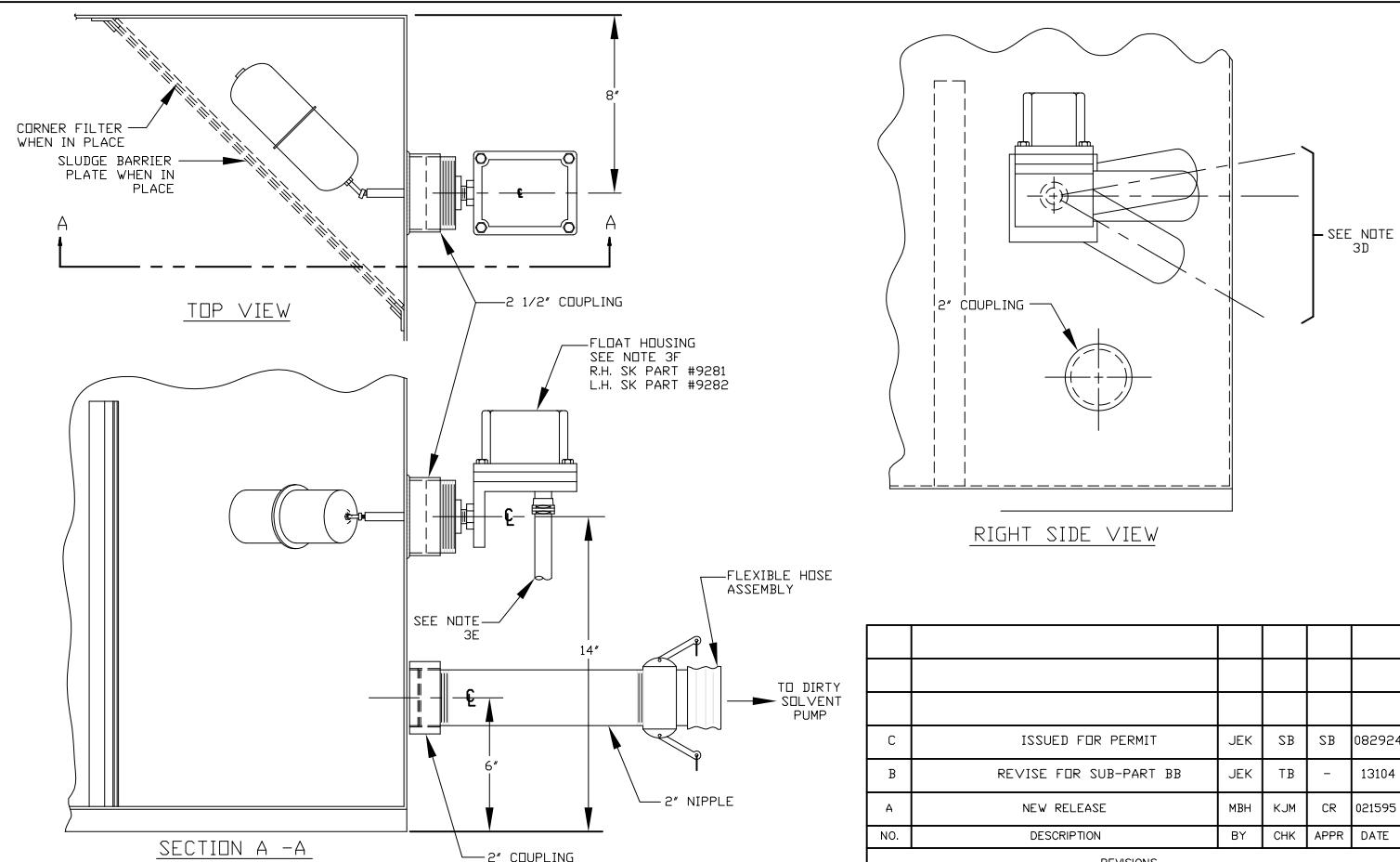
## DUMPSTER ASSY. - DETAIL 3



## BARREL WASHER PIPING ISOMETRIC - DETAIL 2



## FLOAT SWITCH INSTALLATION - DETAIL 4



## GENERAL NOTES

1. THE BARREL WASHER UNIT AND DUMPSTER ARE SUPPLIED BY SAFETY-KLEEN CORP. AND COMBINED BY CONTRACTOR. RECIRCULATING PUMP, AND VALVES FOR DRUM WASHER ARE SUPPLIED BY SAFETY-KLEEN CORP. AND INSTALLED WITH CONTRACTOR SUPPLIED PIPE UNIONS AND HOSES.
2. ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.
3. FLOAT SWITCH INSTALLATION INSTRUCTIONS
  - A. TAKE FLOAT SWITCH AND WRAP CLOCKWISE WITH 2 TEFLO WINDS OF TAPE AND INSTALL INTO 2 1/2" COUPLING ON OUTSIDE OF DUMPSTER
  - B. TAKE FLOAT AND THREAD IT INTO THE FLOAT SWITCH FROM THE INSIDE SHAFT OF THE DUMPSTER AND TIGHTEN SECURELY.
  - C. RELEASE SHIPPING BRACKET BY REMOVING SCREW AND DISCARDING BRACKET.
  - D. FLOAT TRAVEL SETTING ADJUSTMENTS CAN BE ACCOMPLISHED BY LOOSENING ADJUSTMENT SCREWS. THE FLOAT TRAVEL ARC SHOULD BE SET AT 10° TRAVEL UP AND 30° TRAVEL DOWN. (SEE CALIBRATION ON DIAL). SEE RIGHT SIDE VIEW.
  - E. FLOAT SWITCH SHOULD BE WIRED UP ACCORDING TO MFGRS. SPECS AND IN COMPLIANCE WITH ANY LOCAL CODES. (USE RIGID CONDUIT THROUGHOUT).
  - F. FLOAT SWITCH TO BE INSTALLED ON SAME SIDE OF DUMPSTER AS DRAIN LINE. INSTALLATION SHOWN IS FOR RIGHT HAND SIDE OF DUMPSTER. FLOAT SWITCH IS SQUARE D CLASS 9037 HR - 3 (RIGHT HAND) OR HR - 4 (LEFT HAND).
  - G. RE-ADJUST FLOAT STOPS TO THOSE SHOWN ON RIGHT SIDE VIEW.
  - H. WHEN DUMPSTER DOES NOT HAVE A 2 1/2" COUPLING, ONE SHOULD BE ON (LIQUID TIGHT) TO DIMENSIONS SHOWN.

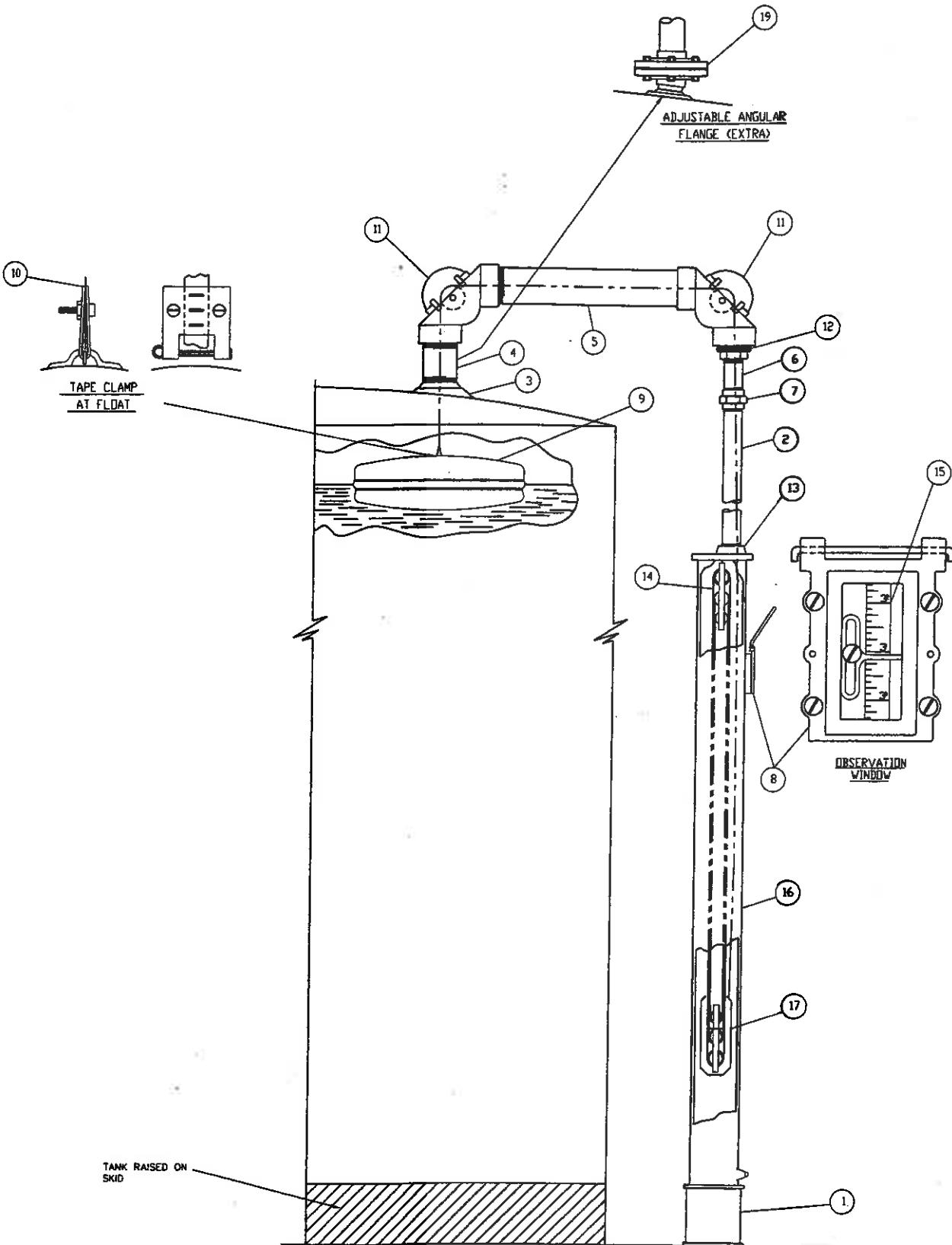
TITLE DRUM WASHER/DUMPSTER ISOMETRIC  
7825 NEW CASTLE RD.  
OKLAHOMA CITY, OK. 73169

SAFETY-KLEEN SYSTEMS, INC.

42 LONGWATER DRIVE, NORWELL, MA. 02061

PHONE: 781-792-5000

C	ISSUED FOR PERMIT	JEK	SB	SB	082924
B	REVISE FOR SUB-PART BB	JEK	TB	-	13104
A	NEW RELEASE	MBH	KJM	CR	021595
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
051094	SC-DWG NUMBER				
	OKLAHOMA CITY, OK.				
	7104-5600-299				
	REV. NO.				
	C				



MODEL 7-S VERTICAL BULK  
STORAGE TANK GAUGE

MATERIAL LIST  
MODEL 7-S

1. GAUGE HOUSING BASE SUPPORT.
2. 1" GALVANIZED PIPE (CUT TO LENGTH).
3. TANK ROOF FLANGE.
4. 2" TANK OPENING PIPE.
5. 2" GALVANIZED PIPE (CUT TO LENGTH).
6. 1" GALVANIZED NIPPLE (ANY LENGTH).
7. 1" GALVANIZED UNION.

PART NAME	PART NO	QUANTITY PER UNIT
8. OBSERVATION WINDOW ASSEMBLY	A-34-A-38	1
9. FLOAT	V-75	1
10. STAINLESS STEEL TAPE CLAMP & SCREWS	V-93	1
11. ELBOW ASSEMBLY COMPLETE	A-30, A-33	2
12. 2" TO 1" REDUCING BUSHING		1
13. ECCENTRIC CAP COMPLETE WITH NUTS & BOLTS	V-71	1
14. PULLEY RACK ASSEMBLY	V-73	2
15. LUFKIN STAINLESS STEEL HIGH VISIBILITY TAPE	V-49	1
16. RUST-PROOFED STEEL GAUGE HOUSING	V-77	1
17. COUNTERWEIGHT	V-72	2
18. CONDENSATION DRAIN PLUG		1
FRAME & LID ASSEMBLY FOR OBSERVATION WINDOW	A-34, A-38	1
GASKETS - SET FOR OBSERVATION WINDOW	V-81, V-82	1
GASKET - ELBOW CAP	V-83	1
GASKET - V-71 ECCENTRIC CAP	V-84	1
GLASS - WINDOW	V-86	1
STAINLESS STEEL INDICATOR FINGER FOR OBSERVATION WINDOW	V-94	1
WIRE PIN - STAINLESS STEEL	V-96	5

**PROPRIETARY STATEMENT**

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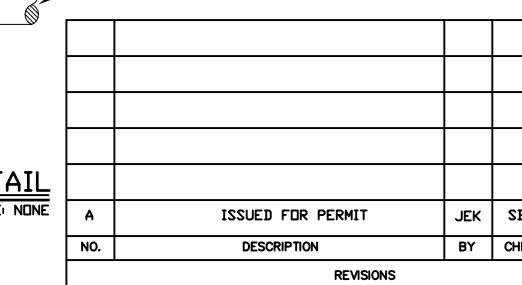
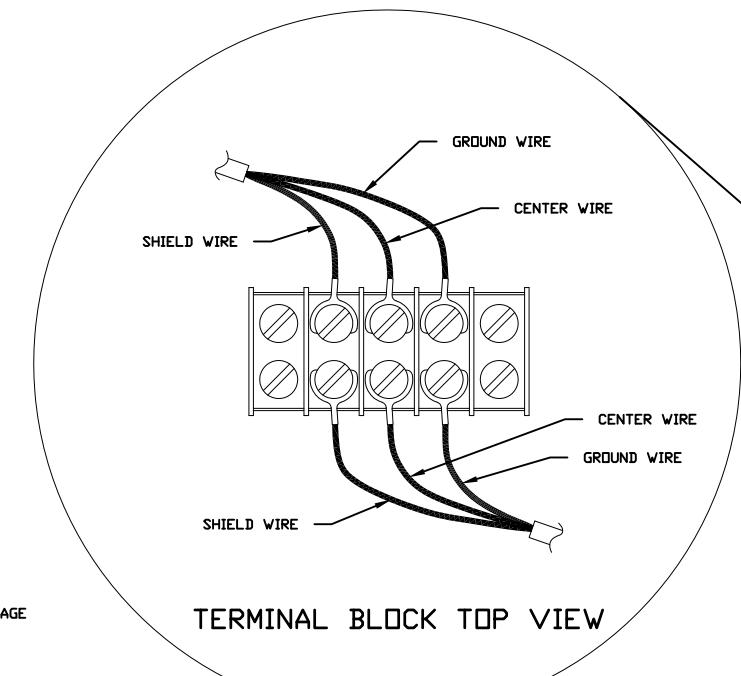
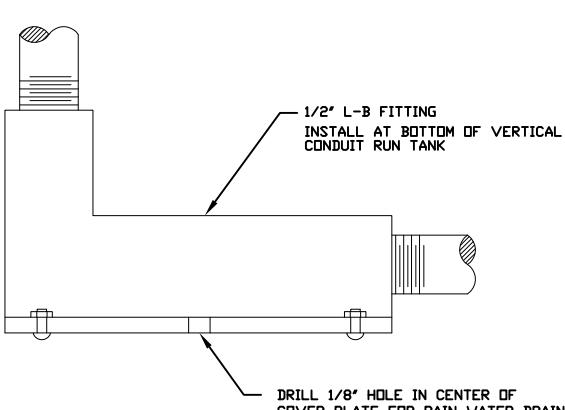
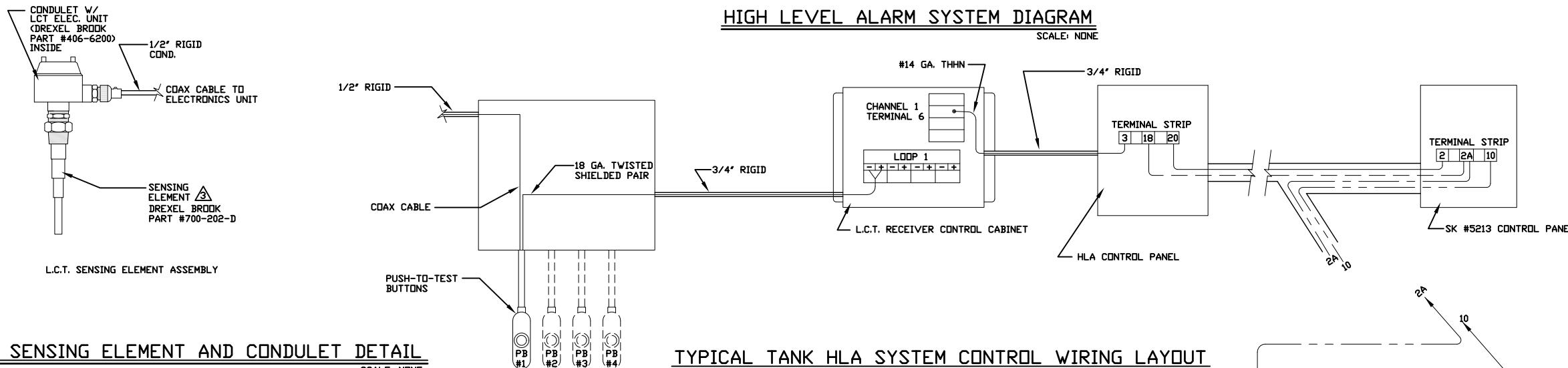
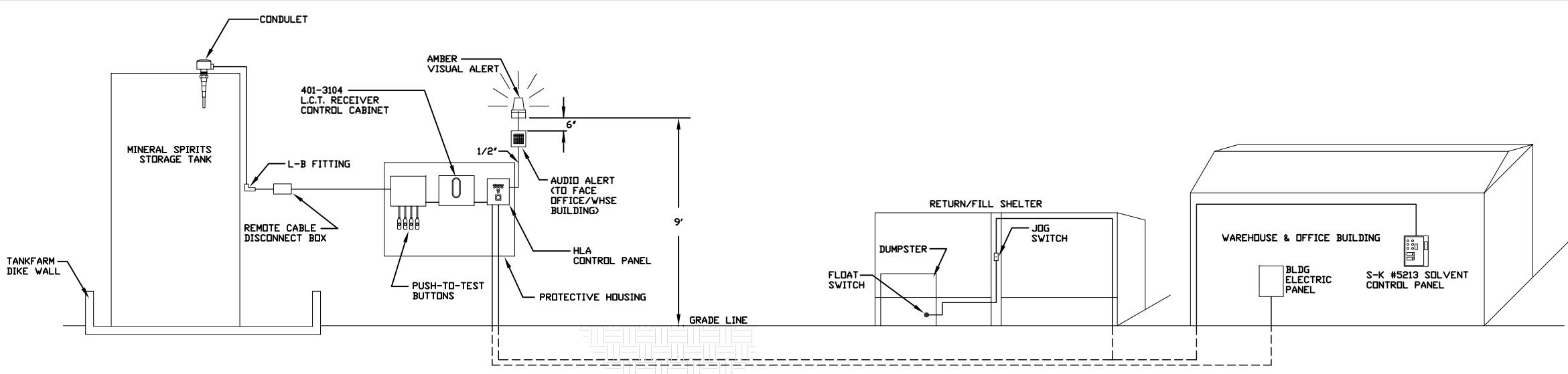
1390 Boone Industrial Drive • Suite 200 • Columbia • MD 21046  
• Phone: (301) 443-7100 • Fax: (301) 443-7181

**GENERAL NOTES**

1. ACTUAL EQUIPMENT CONFIGURATION MAY VARY DUE TO MAINTENANCE/UPKEEP OF FACILITY.

TITLE									
MOORMAN BROS. TANK GAUGE DET.									
B	REVISE FOR SUB-PART BB	JEK	TB	-	13104				
A	RELEASED FOR PART "B" PERMIT	NBH	KJM	-	070292	SCALE N.T.S.	BY MBH	CHKD KJM	APPR -
NO.	DESCRIPTION	BY	CHK	APPR	DATE	SERVICE CENTER LOCATION	SC-DWG NUMBER	OP. APPR	DATE
						OKLAHOMA CITY, OK.	7104-4100-298	REV. NO.	08-30-92
						REVISIONS			B

**S** SAFETY-KLEEN SYSTEMS, INC.  
5400 LEGACY DR. CLUSTER B, BLDG. 3 PLANO, TX 75024 800-569-5740



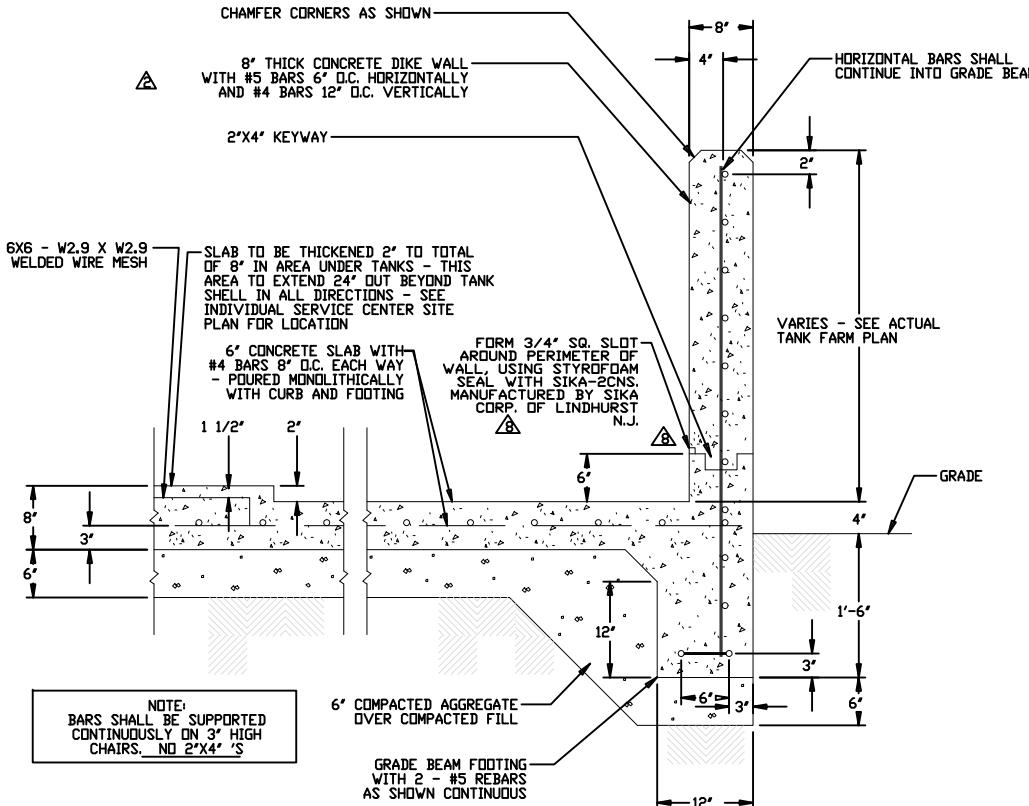
## GENERAL NOTES

1. L. C. T. = LEVEL CONTROL TRANSMITTER
2. ALL ELECTRICAL WITHIN 10 FEET OF TANK TO BE CLASS 1, DIV. 2, PER LOCAL CODE. SEE SITE UTILITY PLAN FOR ADDITIONAL SPECIFICATIONS.
3. DO NOT INSTALL L. C. T. SENSING ELEMENT IN COUPLING IN CENTER OF TANK.
4. THIS DRAWING IS SCHEMATIC AND SHOWS TYPICAL INSTALLATION DETAILS ONLY.

TITLE WASTE MINERAL SPIRITS  
HLA SYSTEM DIAGRAM  
7825 NEW CASTLE RD.  
OKLAHOMA CITY, OK. 73169

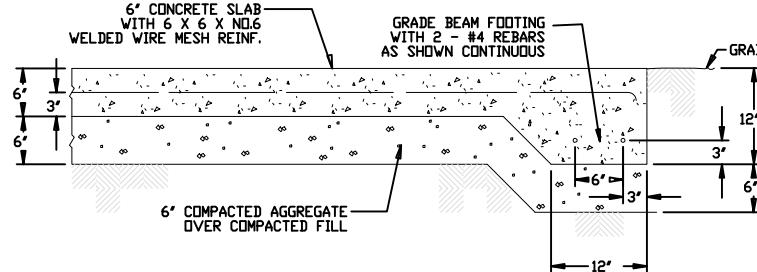
**S**AFETY-KLEEN SYSTEMS, INC  
42 LONGWATER DRIVE, NORWELL, MA. 02061

PHONE: 781-792-5000					
NAME NONE	BY QuesTec	CHKD	P.E. APPR	OP. APPR	DATE 4-28-81
SERVICE CENTER LOCATION			SC-DWG NO.		REV NO.
OKLAHOMA CITY, OK.			7104-9100-499		A

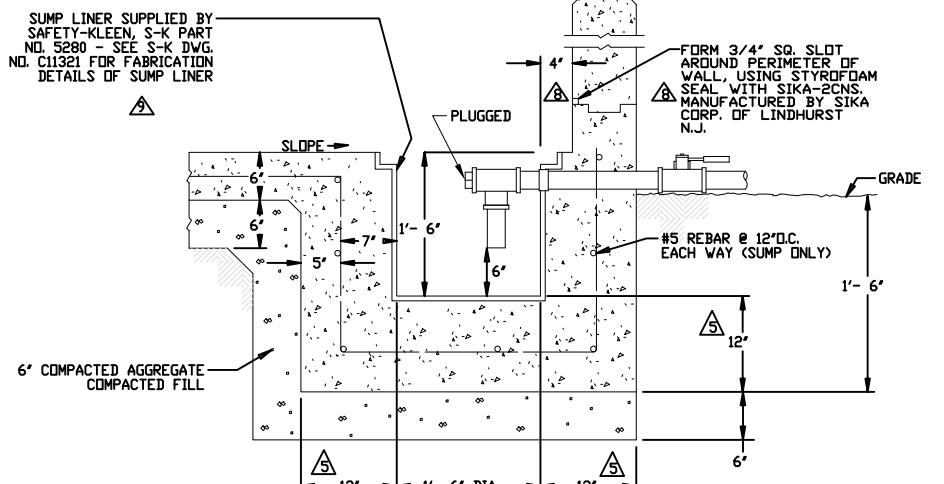


**SECTION C-1: TANK SLAB & DIKE WALL**  
CONSTRUCTION DETAIL

SCALE: 1' = 1'- 0"

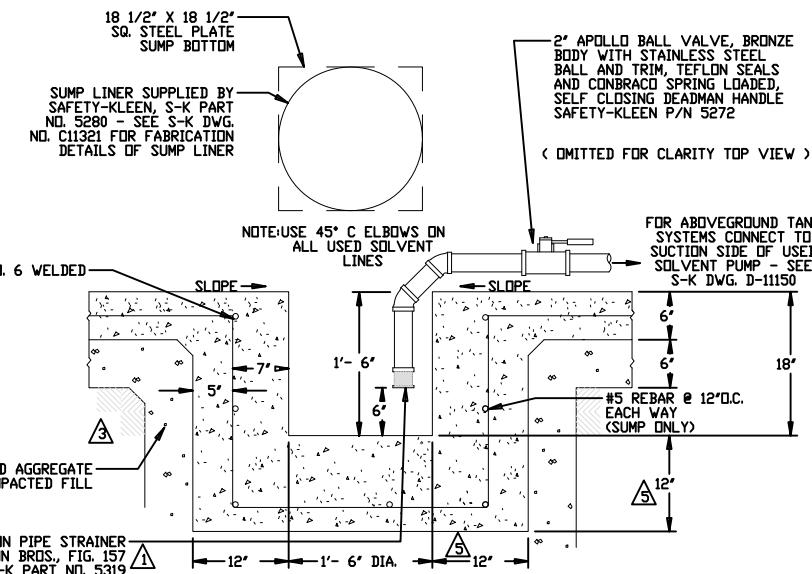


**SECTION C-2 : SLAB CONSTRUCTION DETAIL**  
SCALE: 1' = 1'- 0"



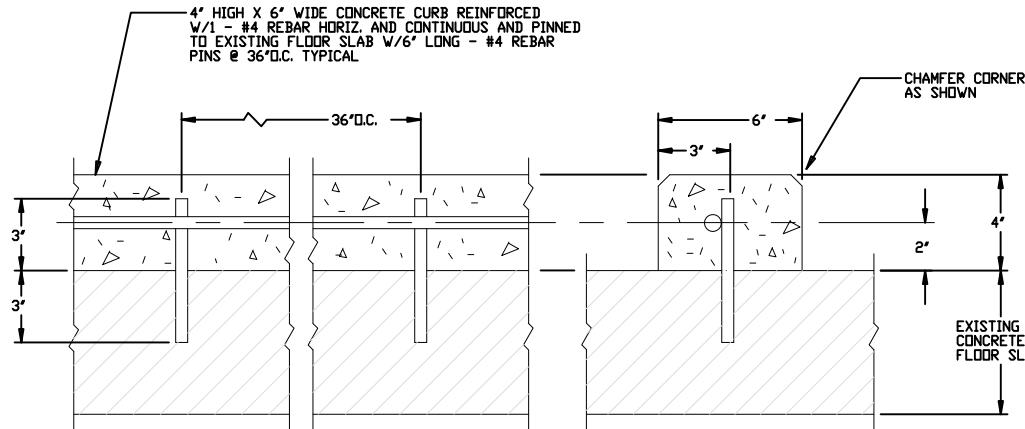
**SECTION C-3: TANK FARM SUMP**  
CONSTRUCTION DETAIL

SCALE: 1' = 1'- 0"



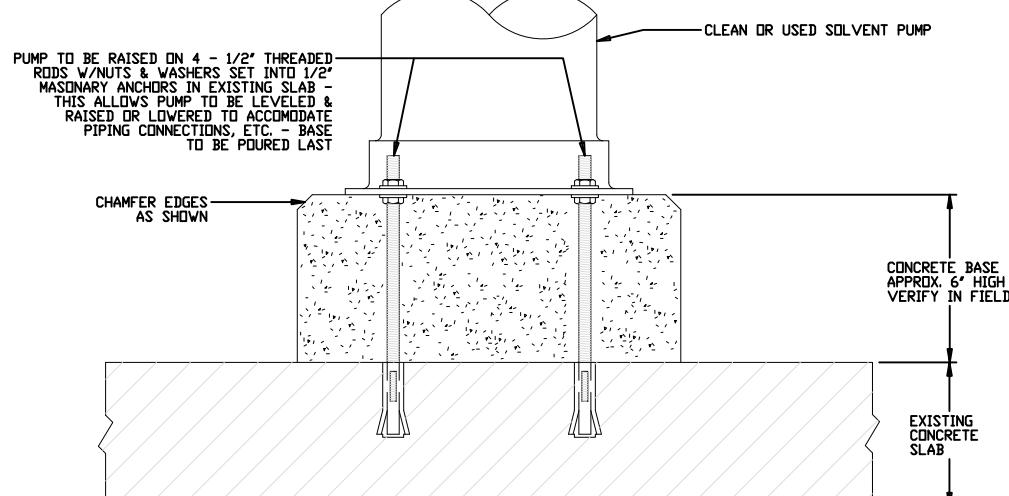
**SECTION C-4: RETURN & FILL AREA SUMP**  
CONSTRUCTION DETAIL

NOTE: FOR AREAS WHERE CURBING IS TO BE INSTALLED, FLOOR SURFACE TO BE CLEANED AND SCRUBBED W/50-50 ACID SOLUTION OR SCRABED WITH GRINDER IN PREPARATION FOR EPOXY BONDING AGENT. BONDING AGENT TO BE W.R. MEADOWS INTRALOK ACRYLIC LATEX OR APPROVED EQUAL AND TO BE APPLIED PRIOR TO POURING CURB.



**DETAIL D-1: CURB CONSTRUCTION**

SCALE: 1' = 1'- 0"



**DETAIL D-2: PUMP BASE CONSTRUCTION**

SCALE: 1' = 1'- 0"

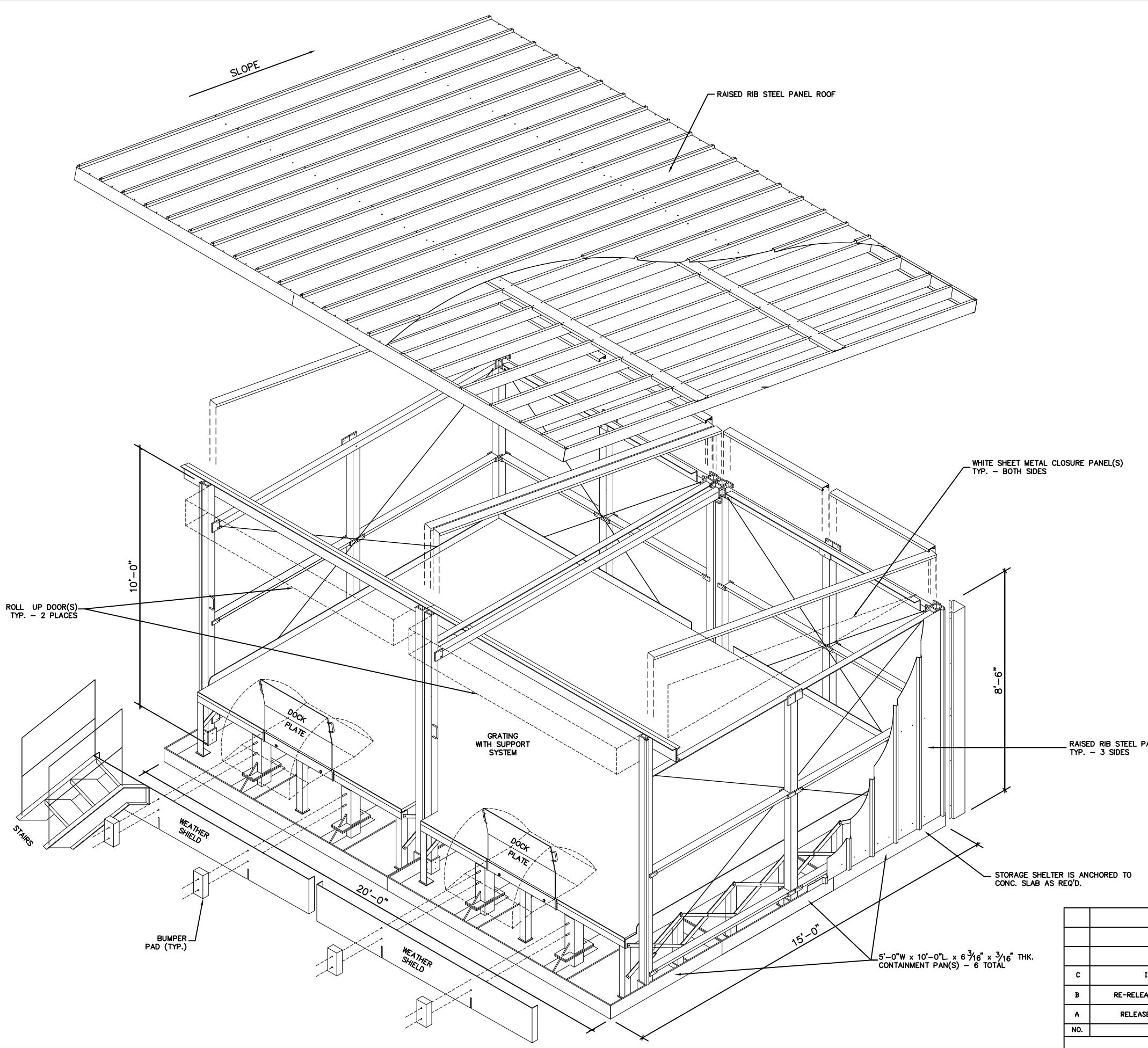
**GENERAL NOTES**

- 1 THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORP. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING C10240, C10962, D10507, AND D10955
- 2 SEE INDIVIDUAL SERVICE CENTER PLANS FOR LOCATIONS OF THESE DETAILS
- 3 CONCRETE TO OBTAIN 3,000 PSI STRENGTH IN 28 DAYS
- 4 ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.
- 5 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACT-301-84 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS'. ALL CONCRETE SHALL HAVE F=3,000 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE 5-7% AIR ENTRAINMENT. COARSE AGGREGATE SHALL CONFORM TO NO. 57 IN ACCORDANCE WITH ASTM C-33.
- 6 ALL CONCRETE AREA'S TO BE COVERED WITH BURLAP AND KEPT CONTINUOUSLY MOIST FOR A MINIMUM PERIOD OF THREE DAYS IMMEDIATELY AFTER PLACEMENT & FINISHING.
- 7 SLOPE ALL CONCRETE SLABS TO SUMP AS SHOWN ON PLAN. RAISED SLAB UNDER TANKS TO BE LEVEL.
- 8 ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED FILL. MINIMUM SOIL BEARING PRESSURE TO BE 2,500 PSF.
- 9 TOP OF ALL EXPOSED CONCRETE WALL POURS TO BE SCREENED AND FINISHED PERFECTLY LEVEL FOR PROPER ARCHITECTURAL APPEARANCE.
- 10 SUMPS TO BE TESTED BY CONTRACTOR WITH WATER AT FULL HEIGHT FOR A PERIOD OF 24 HOURS, WITH NO LEAKAGE ALLOWED.
- 11 ALL FLOORS AND SUMPS SHALL BE COATED WITH TWO COATS OF SIKAGARD 62, MANUFACTURED BY SIKA CORP. LYNDHURST, N.J. OR CONCRESE 1305, MANUFACTURED BY ADHESIVE ENGINEERING CO. SAN CARLOS, CA. COATING SHALL HAVE A SLIP-RESISTANT FINISH PER MANUFACTURER'S SPECIFICATIONS. MANUFACTURER'S RECOMMENDATIONS FOR SURFACE PREPARATION AND APPLICATION SHALL BE STRICTLY FOLLOWED. ALLOW CONCRETE SUBSTRATE TO CURE AT LEAST 30 DAYS PRIOR TO APPLICATION OF COATING.

RMV'D MESH FROM SECT. C3	RD	4/14/89
ADDED 3/4" SLOT & LABEL C-1 & C-3	RD	3/7/89
REVISED SECTION C-1	RD	7/6/88
ADDED COUPLING NOTE	RD	3/29/88
THICKENED CONC. IN SUMP SECTS. C-3 & C-4	RD	2/22/88
RMV'D 2' DRAIN LINE & BALL VALVE/S	RD	5/18/87
RMV'D U.G. DRAIN LINE FROM SUMP DET. C-4	RD	8/6/86
VERT. BAR SPACING WAS 48"	VLJ	10/26/84
ADDED NOTE 5 & PIPE STRAINER	VLJ	10/23/84
NO. DESCRIPTION	BY	CHKD APPR DATE

**TYPICAL CONCRETE CONSTRUCTION DETAILS**

TITLE		
SAFETY-KLEEN SYSTEMS, INC.		
42 LONGWATER DRIVE, MORNELL, MA. 02681	PROJ. ENG. APPR.	OPERATIONS APPR.
PHONE: 781-792-5000	SCALE	AS SHOWN
	DRAWN	NWD-PBG
	DATE	12/16/83
NO. DESCRIPTION	BY	CHKD APPR DATE
REVISIONS		
OKLAHOMA CITY, OK.		
	DRAWING NO.	7104-9900-500
	REV.	K



## INSPECTION LOG SHEET FOR: DAILY INSPECTION OF STORAGE TANK SYSTEM

SPECTOR'S NAME: \_\_\_\_\_

INSPECTOR'S SIGNATURE: \_\_\_\_\_

	MON	TUE	WED	THU	FRI
DATE (MM/DD/YY)					
TIME (AM/PM)					
INSPECTOR'S INITIALS					
<b>STORAGE TANKS:</b> Tanks must NEVER be more than 95% full)					
Clean 150 Tank (in/gal)					
Dirty Tank (in/gal)					
Clean 150 Tank (in/gal)					

Tank Exterior      A    N      A    N      A    N      A    N      A    N

If "N," circle appropriate problem:

Rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion,  
Other:

High Level Alarms:      A    N      A    N      A    N      A    N      A    N

If "N," circle appropriate problem:

Malfunctioning, "Power On" light, malfunctioning siren/strobe light,

Other:

Name Gauges      A    N      A    N      A    N      A    N      A    N

If "N," circle appropriate problem:

Disconnected, sticking, condensation,  
Other:

## CONTAINMENT AREA (Tank Dike):

Bottom and Walls:      A    N      A    N      A    N      A    N      A    N

In "N," circle appropriate problem:

Cracks, debris in dike, open drums in dike, ponding/wet spots/stains, deterioration, displacement, leaks

Other:

Ridge Piping and      A    N      A    N      A    N      A    N      A    N

Supports

In "N," circle appropriate problem:

Distortion, corrosion, paint failure, leaks,

Other:

Tanker Coupling      A    N      A    N      A    N      A    N      A    N

Pan

If "N," circle appropriate problem:

Pan free of residue

Other:

(IF AN ITEM IS NOT ACCPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" ROW)

\* A = ACCEPTABLE      N = NOT ACCEPTABLE

OBSERVATIONS, COMMENTS, DATE AND NATURE OF ANY REPAIRS: \_\_\_\_\_

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**INSPECTION LOG SHEET FOR: DAILY INSPECTION OF STORAGE TANK SYSTEM**

INSPECTOR'S NAME: \_\_\_\_\_

INSPECTOR'S SIGNATURE: \_\_\_\_\_

	MON	TUE	WED	THU	FRI
DATE (MM/DD/YY)					
TIME (AM/PM)					
INSPECTOR'S INITIALS					

**PIPING SYSTEMS (Outside Dike):****Rigid Piping Outside of Dike**      A    N      A    N      A    N      A    N      A    NIn "N," circle appropriate problem:  
Distortion, corrosion, paint failure, leaks  
Other:**Pipe Bridge or Supports**      A    N      A    N      A    N      A    N      A    NIn "N," circle appropriate problem:  
Paint failure, physical damage, loose joints  
Other:**Tanker Connections**      A    N      A    N      A    N      A    N      A    NIn "N," circle appropriate problem:  
Valves open, damaged or leaking valves, cap not installed, check valves not operational  
Other:

IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" ROW

A = ACCEPTABLE      N = NOT ACCEPTABLE

OBSERVATIONS, COMMENTS, DATE AND NATURE OF ANY REPAIRS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**INSPECTION LOG SHEET FOR:      DAILY INSPECTION OF STORAGE TANK SYSTEM**

SPECTOR'S NAME:

**INSPECTOR'S SIGNATURE:**

DATE (MM/DD/YY)	MON	TUE	WED	THU	FRI
TIME (AM/PM)					
INSPECTOR'S INITIALS					

**Pump Seals:**      A      N      A      N      A      N      A      N      A      N      A      N

If "N," circle appropriate problem:

Leaks, Other:

A N A N A N A N A N

If "N," circle appropriate problem:  
Overheating, Other:

A N A N A N A N A N

If "N," circle appropriate problem:  
Leaks, Other:  A  N  A  N  A  N

Valves: A N A N A N A N A N

Leaks, Sticking, Other:  A  N  A  N  A  N  A  N  A  N

**Hose Connections and Fittings:** **A** N **A** N **A** N **A** N

If "N," circle appropriate problem:  
Cracks, Loose, Leaks, Other:

**Hose Body:**      A      N      A      N      A      N      A      N      A      N

---

**TURN AND FILL STATION**

**Wet Dumpster:** A N A N A N A N A N

Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris. Other

**Secondary** **Containment:** A N A N A N A N

In "N," circle appropriate problem:  
Excess sediment/liquid, leaks, deterioration, distortion, excess debris, Other:

**Loading/Unloading Area:** A N A N A N A N A N

In "N," circle appropriate problem:  
Cracks, ponding/wet spots, deterioration, Other:

(IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" BOXES)

\* A = ACCEPTABLE      N = NOT ACCEPTABLE

**OBSERVATIONS, COMMENTS, DATE AND NATURE OF ANY DEVIATIONS**



INSPECTION LOG SHEET FOR: **DAILY INSPECTION OF DRUM STORAGE AREA (A log must be completed for each storage area)**

DESCRIPTION OF AREA: **FRS SHED - SE CORNER OF PROPERTY**  
 PERMITTED STORAGE VOLUME: **N/A**

INSPECTOR'S NAME & TITLE: \_\_\_\_\_

	MON	TUE	WED	THU	FRI
DATE (MM/DD/YY)					
TIME (AM/PM)					
INSPECTOR'S INITIALS					
<b>CONTAINERS:</b>					
55 GAL					
30 GAL					
16 GAL					
5 GAL					
<b>TOTAL NUMBER OF CONTAINERS</b>					
<b>TOTAL VOLUME (IN GALLONS)</b>					

Total volume

A    N    A    N    A    N    A    N    A    N

If "N," circle appropriate problem:

Total volume exceeds the amount for which the facility is permitted, Other:

**Condition of Drums:**

A    N    A    N    A    N    A    N    A    N

If "N," circle appropriate problem:

Missing or loose lids, missing, incorrect or incomplete labels, rust, leaks, distortion, other:

**Stacking/placement /aisle space**

A    N    A    N    A    N    A    N    A    N

If "N," circle appropriate problem:

different from Part B floor plan, containers not on pallets, unstable stacks, Other:

**CONTAINMENT AREA:**

**Curbing, Floor and Sump(s)**

A    N    A    N    A    N    A    N    A    N

In "N," circle appropriate problem:

Ponding/wet spots, deterioration, cracks, gaps, etc., displacement, leaks, Other:

**Loading/Unloading Area:**

A    N    A    N    A    N    A    N    A    N

If "N," circle appropriate problem:

Cracks, deterioration, ponding/wet spots, other:

(IF AN ITEM IS NOT APPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" ROW)  
 \* A = ACCEPTABLE      N = NOT ACCEPTABLE

TO CALCULATE TOTAL VOLUMES, USE THE FOLLOWING: M.S., I.C., D.C., AND PAINT WASTE DRUMS HOLD 16 GALLONS  
 D.C. BOXES HOLD 10 GALLONS AND PAINT WASTE PAILS HOLD 5 GALLONS.

REMARKS, COMMENTS, DATE AND NATURE OF ANY REPAIRS: \_\_\_\_\_

**INSPECTION LOG SHEET FOR:****DAILY INSPECTION OF DRUM STORAGE AREA (A log must be completed for each storage area)****DESCRIPTION OF AREA:****PERMITTED STORAGE VOLUME:****FLAM SHED - SE CORNER OF PROPERTY****2184 GALLONS****INSPECTOR'S NAME & TITLE:**

	MON	TUE	WED	THU	FRI
DATE (MM/DD/YY)					
TIME (AM/PM)					
INSPECTOR'S INITIALS					
CONTAINERS:					
55 GAL					
30 GAL					
16 GAL					
5 GAL					
TOTAL NUMBER OF CONTAINERS					
TOTAL VOLUME (IN GALLONS)					

Total volume

A N A N A N A N A N A N

If "N," circle appropriate problem:

Total volume exceeds the amount for which the facility is permitted, Other:

**Condition of Drums:**

A N A N A N A N A N A N

If "N," circle appropriate problem:

Missing or loose lids, missing, incorrect or incomplete labels, rust, leaks, distortion, other:

**Stacking/placement /aisle space**

A N A N A N A N A N A N

If "N," circle appropriate problem:

different from Part B floor plan, containers not on pallets, unstable stacks, Other:

**CONTAINMENT AREA:****Curbing, Floor and Sump(s)**

A N A N A N A N A N A N

In "N," circle appropriate problem:

Ponding/wet spots, deterioration, cracks, gaps, etc., displacement, leaks, Other:

**Loading/Unloading Area:**

A N A N A N A N A N A N

In "N," circle appropriate problem:

Cracks, deterioration, ponding/wet spots, other:

(IF AN ITEM IS NOT ACCPLICABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" ROW)  
\* A = ACCEPTABLE      N = NOT ACCEPTABLE**TO CALCULATE TOTAL VOLUMES, USE THE FOLLOWING: M.S., I.C., D.C., AND PAINT WASTE DRUMS HOLD 16 GALLONS  
D.C. BOXES HOLD 10 GALLONS AND PAINT WASTE PAILS HOLD 5 GALLONS.****REMARKS, COMMENTS, DATE AND NATURE OF ANY REPAIRS:**

**SPECTION LOG SHEET FOR: WEEKLY INSPECTION OF SAFETY AND EMERGENCY EQUIPMENT, SECURITY DEVICES AND MISCELLANEOUS EQUIPMENT**

NSPECTORS NAME/TITLE: \_\_\_\_\_

INSPECTORS SIGNATURE: \_\_\_\_\_

DATE (MM/DD/YY)	
TIME (AM/PM)	
INSPECTOR'S INITIALS	

---

**SAFETY AND EMERGENCY EQUIPMENT (WILL BE INSPECTED FOR QUANTITY AND CONDITION)**

**Fire Extinguishers**

If "N," circle appropriate problem:

Overdue inspection, inadequately charged, inaccessible, other:

**A      N**

**Eyewash and Shower:**

If "N," circle appropriate problem:

Disconnected/malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain leaking, Other:

**A      N**

**First Aid Kit:**

If "N," circle appropriate problem:

Inadequate inventory, Other:

**A      N**

**Spill Clean-up Equipment**

If "N," circle appropriate problem:

Inadequate supply of sorbent, towels and/or clay, inadequate supply of shovels, mops, empty drums, wet/dry vacuum, other:

**A      N**

**Communication Devices:**

If "N," circle appropriate problem:

Inadequate supply of telephones, malfunctioning telephones, malfunctioning intercom, emergency alarm does not work, telephones are not located where needed, other:

**A      N**

**Personal Protective Equipment**

If "N," circle appropriate problem:

Inadequate supply of aprons, gloves, glasses, respirator, Other:

**A      N**

---

**SECURITY DEVICES:**

**Gates and Locks**

If "N," circle appropriate problem:

Sticking, corrosion, lack of warning signs, fit, other:

**A      N**

**Fence:**

If "N," circle appropriate problem:

Broken ties, corrosion, holes, distortion, other:

**A      N**

---

**MISCELLANEOUS EQUIPMENT:**

**Dry Dumpster:**

If "N," circle appropriate problem:

Rust, corrosion, split seams, distortion, deterioration, excess debris, liquids in unit, other:

**A      N**

---

(IF AN ITEM IS NOT ACCPILCABLE, ENTER "N/A" AFTER IT AND DRAW A LINE THROUGH THE "ACCEPTABLE/NOT ACCEPTABLE" ROW)

\* **A = ACCEPTABLE      N = NOT ACCEPTABLE**

**OSERVATIONS, COMMENTS, DATE AND NATURE OF ANY REPAIRS:** \_\_\_\_\_

---

---

**INSPECTION LOG SHEET FOR OKLAHOMA CITY BRANCH**  
**Daily Inspection of Tank Equipment/Subpart BB**

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

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Date: ____/____/____	Date: ____/____/____	Date: ____/____/____	Date: ____/____/____	Date: ____/____/____
Time: _____	Time: _____	Time: _____	Time: _____	Time: _____
<b>Pump, Flange, or Valve Number</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>
1. 2" Valve	A N	A N	A N	A N
2. 1½ Valve	A N	A N	A N	A N
3. 1½ Valve	A N	A N	A N	A N
4. Recirculation Pump	A N	A N	A N	A N
5. Trash Pump	A N	A N	A N	A N
6. 2" Valve	A N	A N	A N	A N
7. 1½ Valve	A N	A N	A N	A N
8. 1½ Valve	A N	A N	A N	A N
9. Recirculation Pump	A N	A N	A N	A N
10. 2" Camlock	A N	A N	A N	A N
11. Basket Strainer	A N	A N	A N	A N
12. 2" Swing Check Valve	A N	A N	A N	A N
13. 2" Coupling	A N	A N	A N	A N
14. 2" Flange	A N	A N	A N	A N
15. 2" Elbow	A N	A N	A N	A N
16. 3" Emergency Valve	A N	A N	A N	A N
17. 3" Locking Gate	A N	A N	A N	A N
18. 3" Emergency Valve	A N	A N	A N	A N
19. 3" Gate Valve	A N	A N	A N	A N
20. 3" Flange	A N	A N	A N	A N
21. 3" Flange	A N	A N	A N	A N
22. 3" Swing Check Valve	A N	A N	A N	A N
3. 3" Locking Gate Valve	A N	A N	A N	A N
4. 2" Union	A N	A N	A N	A N
25. 2" Union	A N	A N	A N	A N
26. 2" Union	A N	A N	A N	A N
27. 2" Union	A N	A N	A N	A N
28. Manway	A N	A N	A N	A N
29. Manway**	A N	A N	A N	A N
30. Coupling**	A N	A N	A N	A N
31. Outlet**	A N	A N	A N	A N
32. Vent**	A N	A N	A N	A N
33. Pump Inlet**	A N	A N	A N	A N
34. 2" Elbow	A N	A N	A N	A N
35. 2" Union	A N	A N	A N	A N
36. 2" Camlock	A N	A N	A N	A N
37. 2" Coupling	A N	A N	A N	A N
38. 2" Tee	A N	A N	A N	A N
39. 2" Tee	A N	A N	A N	A N
40. 2" Union	A N	A N	A N	A N
41. 2" Pipe Nipple	A N	A N	A N	A N
42. 2" Pipe Nipple	A N	A N	A N	A N
43. 2" Union	A N	A N	A N	A N
44. 2" Elbow	A N	A N	A N	A N
45. 2" Elbow	A N	A N	A N	A N
46. 2" Elbow	A N	A N	A N	A N
47. 2" Elbow	A N	A N	A N	A N
48. 2" Elbow	A N	A N	A N	A N
49. 2" Elbow	A N	A N	A N	A N
50. 2" Elbow	A N	A N	A N	A N
51. 2" Union	A N	A N	A N	A N
52. 2" Tee	A N	A N	A N	A N

\*\* These items are only inspected once a year due to their inaccessible location (on the top of the waste solvent tank).

**IS MANDATORY THAT ANY LEAK OR POTENTIAL LEAK BE REPORTED TO YOUR SUPERVISOR IMMEDIATELY!**

If "N", enter pump or valve # \_\_\_\_\_ and circle appropriate problem: 1. Potential leak, 2. Active Leak, 3. Sticking, 4. Wear,  
5. Other \_\_\_\_\_

For all leaks and potential leaks, the Leak Detection and Repair Record must be completed!



October 5, 2009

Steve LuQuire  
Director, Branch Engineering – West Group  
Safety-Kleen Systems, Inc.  
5360 Legacy Drive  
Building 2, Suite 100  
Plano, TX 75024

Amie Gronberg  
Environmental Health and Safety Manager  
Safety-Kleen Systems, Inc.  
4205 North Narcissus Ave.  
Broken Arrow, OK 74012

---

Nick West  
Manager  
Safety-Kleen Systems, Inc.  
7528 Newcastle Road  
Oklahoma City, OK 73169

RE: Integrity Assessment, Used Solvent Storage System, Wheatland, Oklahoma

Dear Mr. LuQuire, Ms. Gronberg, and Mr. West:

Enclosed is the correct version of the above-title report. Please destroy all previously-issued versions. The 3-ring binder can be reused. Please don't hesitate to contact me at 303.938.5518 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Wayne Frank".

Wayne Frank, P.E.

creating sustainable success





Cameron-Cole LLC

#### TANK SYSTEM CERTIFICATION

I have supervised the integrity assessment dated September 30, 2009, of the Used Solvent Storage Tank System at the Safety-Kleen Systems, Inc. facility in Wheatland, Oklahoma. The EPA ID Number for this facility is OKD 980878474. This work is described in the attached Cameron-Cole, LLC report *Integrity Assessment Used Solvent Storage System, Wheatland, Oklahoma, September 30, 2009*. The report was performed to meet the requirements of Resource Conservation and Recovery Act (RCRA) regulations in 40 CFR 264.191, 40 CFR 264.193, and the corresponding requirements in the Oklahoma Department of Environmental Quality regulations OAC 252:205-3-2.

With regard to the above duty, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assume that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Wayne L. Frank  
Registered Professional Engineer  
Oklahoma PE Number 22414

Cameron-Cole, LLC  
5777 Central Ave.  
Suite 200  
Boulder, CO 80301





Cameron-Cole LLC

**Integrity Assessment  
Used Solvent Storage System  
Wheatland, Oklahoma**

---

Prepared for:  
**Safety-Kleen Systems, Inc.**

Date: 09.30.2009

[Cameron-Cole, LLC](#)

5777 Central Avenue  
Suite 200  
Boulder, CO 80301  
P. 303.938.5500  
F. 303.938.5520

[www.cameron-cole.com](http://www.cameron-cole.com)



Cameron-Cole LLC

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SYSTEM DISCRIPTION .....	1
Hazardous Characteristics of the Waste.....	2
Corrosion Protection and Materials Compatibility .....	2
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## APPENDICES

APPENDIX A – SYSTEM DESCRIPTION

APPENDIX B – INSPECTION AND TESTING DOCUMENTATION



Cameron-Cole LLC

## TANK SYSTEM ASSESSMENT

This report documents the integrity assessment of the used solvent storage system at the Safety-Kleen Systems, Inc. facility in Wheatland, Oklahoma. The EPA ID number for this facility is OKD 980878474. This assessment and this report were prepared to meet the requirements of the Resource Conservation and Recovery Act (RCRA) regulations in 40 CFR 264.191, 40 CFR 264.193<sup>1</sup>, and the corresponding requirements in the Oklahoma Department of Environmental Quality regulations, OAC 252:205-3-2<sup>2</sup>. The requirements for tank thickness are obtained from *API Standard 653 – Tank Inspection, Alteration, Repair, and Reconstruction*.

## SYSTEM DESCRIPTION

Used mineral spirits solvent material is poured from containers into one of two open-top, aboveground, steel solvent-return receptacles (two drum washers). The used solvent material is pumped from these receptacles through aboveground piping to an aboveground storage tank. Accumulated used solvent and sludge material is periodically removed from this used solvent storage tank for offsite recycling. Solvent removal is performed by a tanker truck equipped with a suction pump through a 3-inch pipe. Sludge and solids are removed through a man-way. No other equipment or standby equipment is used in the operation of the aboveground tank.

The used solvent storage tank is a 16,800 gallon vertical steel cylinder, with a flat bottom and a cone roof placed on a metal tank stand that is on a reinforced concrete slab-on-grade. The tank stand provides approximately 6 inches of space between the floor and tank, which provides sufficient clearance for inspection. The tank is vented through a conservation breather vent to prevent over-pressuring. A high-level alarm is used to prevent overfilling the tank. The liquid level in the tank is monitored with a level indicator and recorded once daily. The tank is located within a concrete containment vault. The drum washers and pump (with in-line filter) are located within a curbed concrete containment “return and fill” area.

<sup>1</sup> Part 264—Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities; Subpart J—Tank Systems: § 264.191 Assessment of existing tank system's integrity. §264.193 Containment and detection of releases.

<sup>2</sup> Department of Environmental Quality; Hazardous Waste Management; Incorporation by reference [40 CFR 271.14 Requirements for permitting



Cameron-Cole LLC

For the purpose of this assessment, the tank system has been defined to include the drum washers, the storage tank, the pump and filter, the aboveground piping system that connects them, and associated secondary containment areas. Appendix A includes drawings for the site plan, system schematic process flow, facility layout, storage tank design, and drum washer design.

## **Hazardous Characteristics of the Waste**

The used solvent material collected and stored by this system is a mixture of used solvent and sludge materials. The primary expected hazardous characteristics of the waste is ignitability, EPA hazard code I, and toxicity characteristics, EPA hazard code E. Refer to Appendix A for Material Safety Data Sheets (MSDS) of the primary components that comprise the used solvent mix stored in the system.

## **Corrosion Protection and Materials Compatibility**

The waste system components are all located in a building or in an aboveground reinforced-concrete vault area, and are not in contact with soil or groundwater. Accordingly, corrosion-resistant materials of construction with cathodic protection or electrical isolation devices are not required. The exterior of the tank, piping, and other system components are protected from the atmospheric corrosion by paint. The tank, piping, valves, and other ancillary equipment are all made from carbon steel or brass; diaphragms and liquid interface devices are made from neoprene or tetrafluoroethylene (TFE) materials. Prior experience with the system indicates the waste is compatible with carbon steel, brass, and the neoprene or TFE materials. These materials of construction should provide satisfactory protection from corrosion and adequate service life under the intended service conditions.

## **INTEGRITY ASSESSMENT**

An integrity assessment was performed to detect leaks, cracks, corrosion, erosion or other deterioration of the system. The secondary containment areas were also checked. Documentation of the inspection and testing is in Appendix B.

For this assessment, visual inspection, ultrasonic thickness measurements and hydrostatic leak tests were used on the drum washers, tank, and ancillary equipment. Visual inspection was used on the secondary containment areas.



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The hydrostatic test on the system was accomplished by filling the used solvent tank to approximately 80% of its maximum operating capacity of 16,800 gallons and filling the drum washers to their capacity with used solvent, which was also in the line between the return and fill station and the used solvent tank. The tank was inspected for a period of approximately one and a half hours. The total system was inspected for a period of approximately two and a half hours under normal operating conditions. After these inspections, the solvent was pumped to the tank to test the pump, filter, and piping for leaks under operating conditions.

The inspection and hydrostatic leak tests revealed no visible evidence of current cracks or leaks in the system, but found that the paint on the bottom of the tank was flaking and deteriorating.

Ultrasonic thickness measurements were obtained to document the current thickness of the tank walls, floor, piping and nozzles. Measurements were made with a Cygnus I intrinsically safe digital ultrasonic thickness meter. The meter was calibrated before arrival on site and field verified with a 0.500-inch thick piece of steel (provided by the instrument vendor for this use) to ensure the meter was still in calibration<sup>3</sup>. API 653 provides minimum thickness for tank bottom and shell (side). Table 6-1 (Bottom Plate Minimum Thickness) provides a minimum bottom thickness of 0.05 inches for tanks with a means to provide detection and containment of a bottom leak. Section 4.3.3 (Minimum Thickness Calculation for Welded Tank Shell) provides a minimum shell thickness of 0.02 inches<sup>4</sup>.

Documentation in Appendix B shows the locations where measurements were made and presents the results of the external thickness measurements. These measurements were made through existing paint. In locations where the paint was chipping or peeling, the paint was scraped off to provide a surface with consistent coverage. The Cygnus I ultrasonic thickness meter uses an internal algorithm to distinguish paint from steel, and only reports the steel thickness. Tank wall readings varied between 0.175 and 0.185 inches. Bottom readings varied between 0.240 and 0.235 inches. Several bottom readings of 0.235 inches were duplicated after the instrument calibration was field-verified for a second time. The ultrasonic measurements indicate that the tank's bottom and shell thicknesses are above the API 653 standard.

Differences between any two data sets can be affected by manufacturer's material tolerances, different probe placement and nominal variations due to different instruments used, ambient temperature, and other variables inherent to the ultrasonic technology. These conditions should be considered when comparing current readings to readings taken during previous inspections.

<sup>3</sup> The Cygnus 1 meter is designed to provide accuracy and resolution to 0.05 millimeters (0.002 inches). On-site calibration verification of the 0.500-inch steel plate read 0.505 inches.

<sup>4</sup>  $T_{min} = [2.6(H-1)DG]/[SE] = [2.6*(20-1)*12*.8]/[(.8*30,000)*1] = 0.01976$

## **CONCLUSIONS**

---

The used solvent tank system at the Safety-Kleen Systems, Inc. facility in Wheatland, Oklahoma was inspected on September 8, 2009. External visual inspections were supplemented by hydrostatic leak test and by ultrasonic thickness measurements to evaluate the condition of the storage system.

System components including the drum washers, pump and associated piping and secondary containment areas are free from cracks, leaks, or significant corrosion or other performance-related defects. No leaks or cracks were observed in the hydrostatic operating testing of the used solvent tank or any of the system components.

Tank-thickness measurements indicate that the bottom and shell thickness are above the API 653 standards. Inspection and ultrasonic tank-thickness measurements should continue to be performed in accordance with EPA requirements of every five years.

**APPENDIX A**  
**SYSTEM DESCRIPTION**

Table of Contents

Site Plan

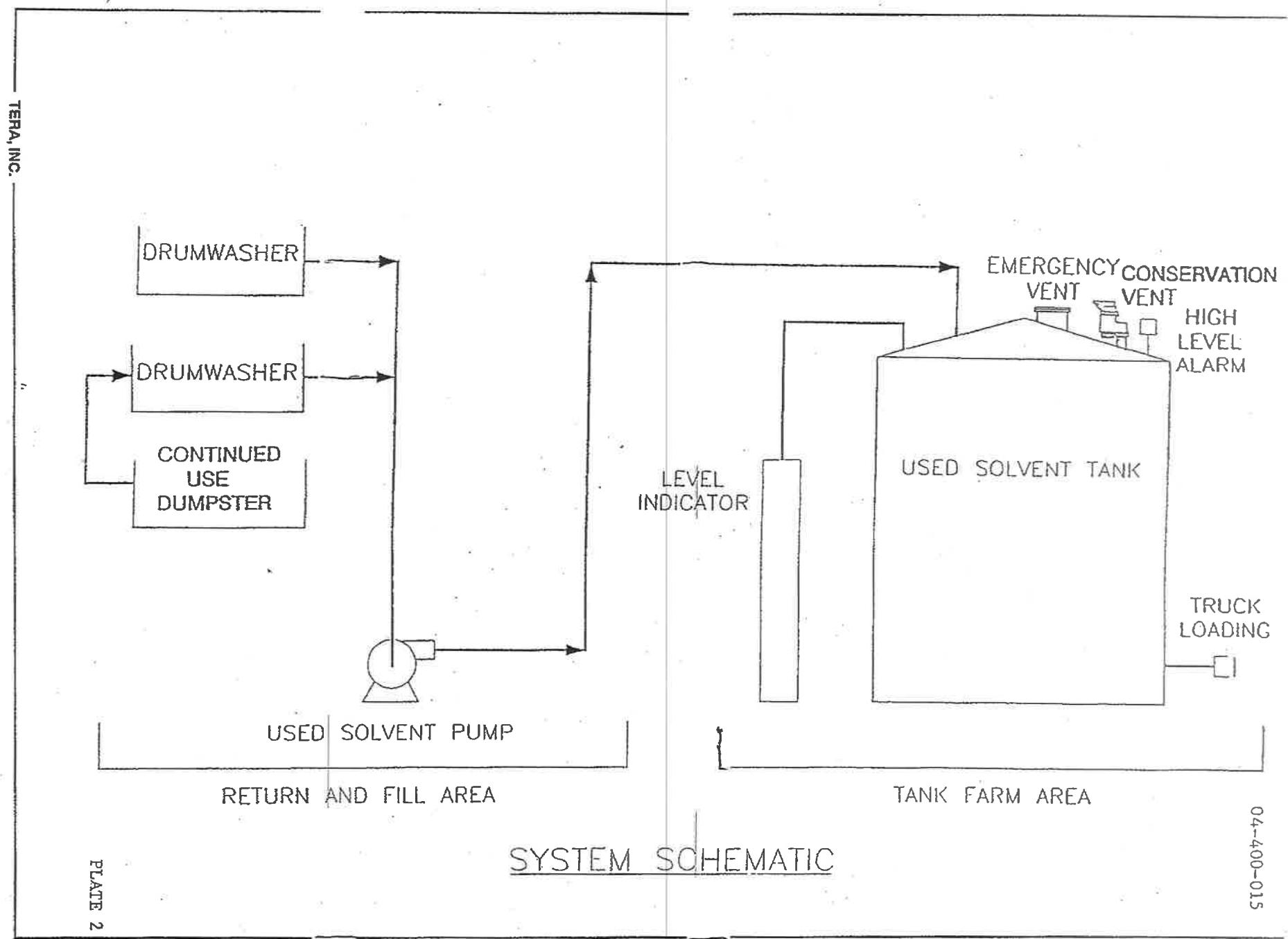
System Schematic

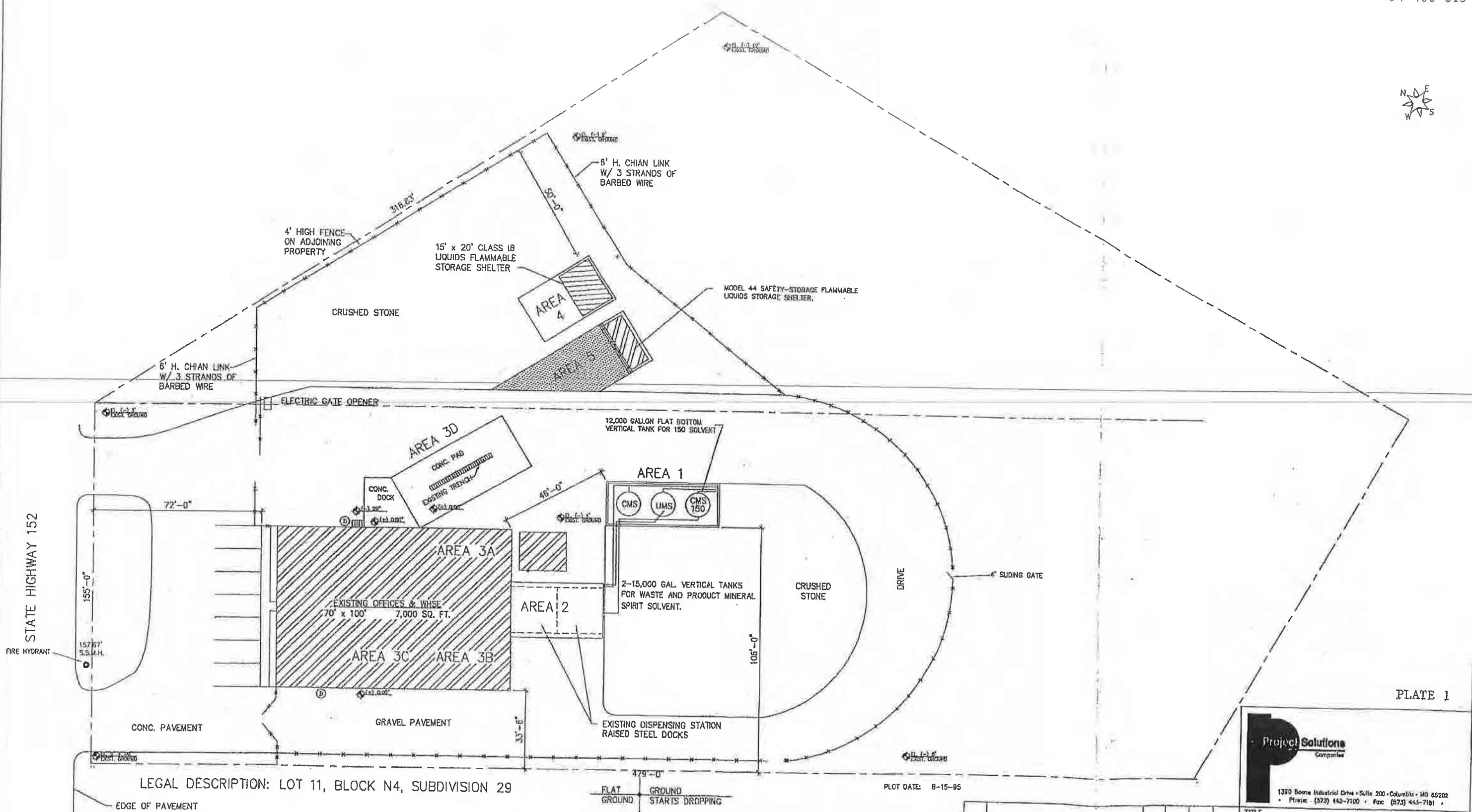
Tank/Shelter Plan

16,800 Gallon Vertical Storage Tank

Drum Washer Assembly

Material Safety Data Sheets





LEGAL DESCRIPTION: LOT 11, BLOCK N4, SUBDIVISION

EDGE OF PAVEMENT

PLOT DATE: 8-1

PROPRIETARY STATEMENT

GENERAL NO

1. NOTE: PIPING WITHIN SECONDARY CONTAINMENT NOT ILLUSTRATED.

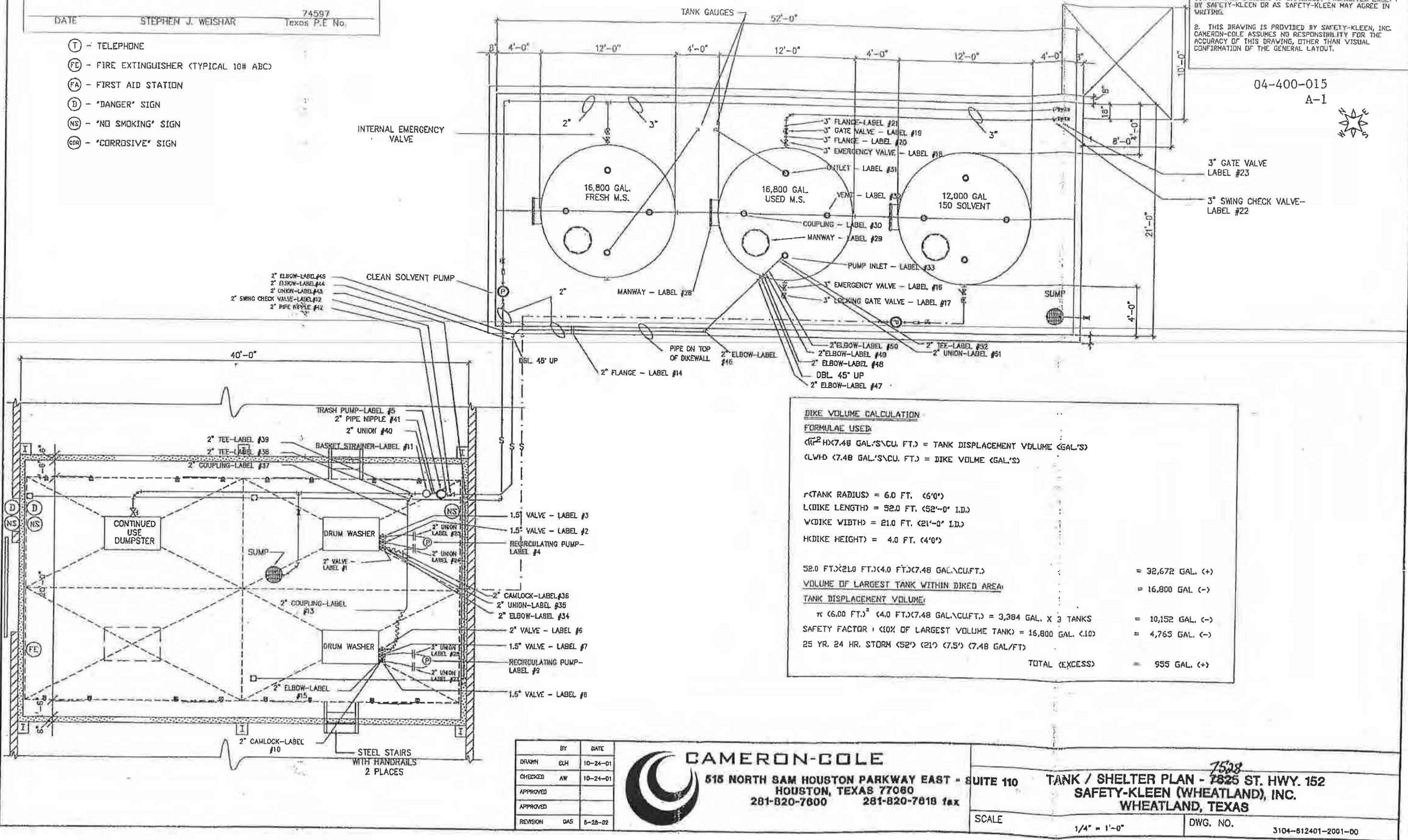
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN CORP. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MAY NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN CORP. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

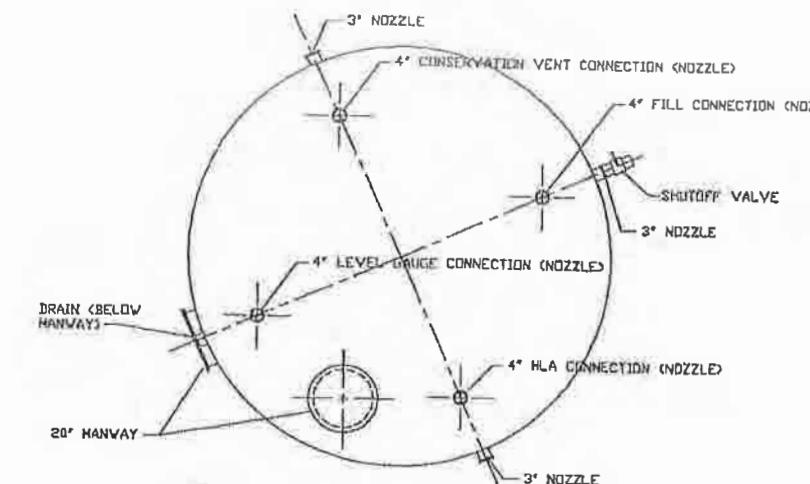
				TITLE
03	REVISE FOR SPCC	JEX	4-11-03	SITE PLAN 7528 STATE HWY 152
02	REMOVE PROPOSED ANTI-FREEZE NOTATION SHOW 150 GALLON TANK. REVISE 44 LOCATION	KEY	2-14-04	 SAFETY-KLEEN CORP. 777 BIG TEEBEE ROAD ELGIN, ILLINOIS 60137 PHONE 708-617-4463
01	REMOVE PROPOSED IMPROVEMENTS AND SHOW NEW MODEL 44 FLAMMABLE STORAGE UNIT	KEY	2-11-04	
00	REVISED SAFETY KLEEN DRAWING TO GADD AS DRAFT. REPLACES S.K. DWG. D-1151	ALJ	2-21-04	
NO	DESCRIPTION	BY	CHCK APPR DATE	
	REVISIONS			

BASED ON INFORMATION PROVIDED BY TERRA INC., AN INDEPENDENT THIRD PARTY, I CERTIFY THAT THE PROCESS AND/OR STRUCTURES DEPICTED ON THIS EXHIBIT EXIST AT THE FACILITY IN SUBSTANTIAL ACCORDANCE WITH THIS EXHIBIT. NO OTHER WARRANTY EXPRESSED OR IMPLIED IS MADE.

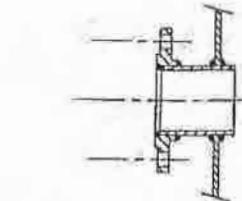
DATE STEPHEN J. WEISAR Texas P.E. No. 74597

- (T) - TELEPHONE
- (FE) - FIRE EXTINGUISHER (TYPICAL 10# ABC)
- (FA) - FIRST AID STATION
- (D) - "DANGER" SIGN
- (NS) - "NO SMOKING" SIGN
- (COR) - "CORROSIVE" SIGN



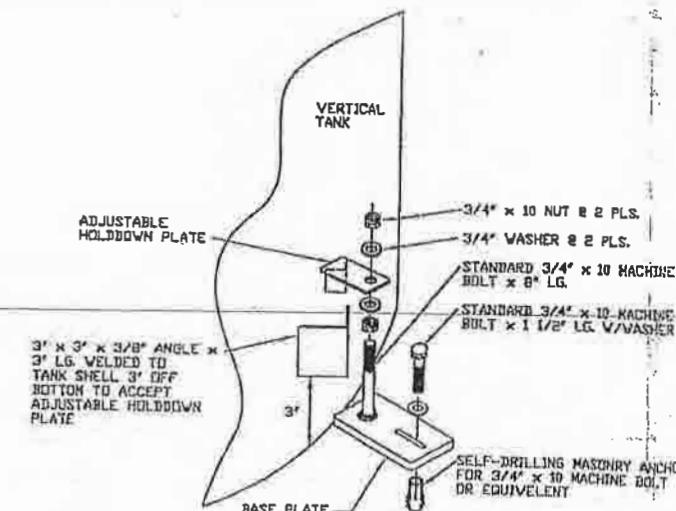
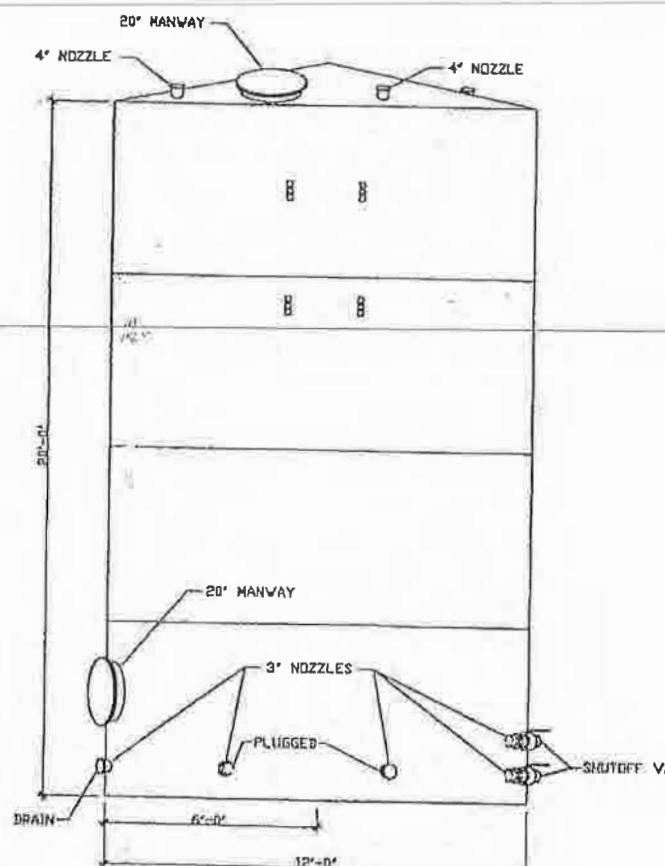


TOP OR SHELL CONNECTION  
UL 142 WELD  
PAGE 15, FIG. 11-2  
FLANGE WITHOUT  
REINFORCING PLATE



TANK CONNECTIONS

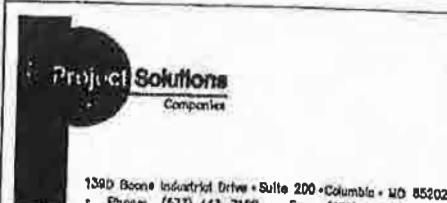
NOT TO SCALE



TANK ANCHORING DETAIL

SCALE: NONE

GENERAL NOTES	
1	TANK SURFACES ARE TYPICALLY PREPARED IN ACCORDANCE WITH STEEL STRUCTURE PAINTING COUNCIL CODE #SSPC-SP3-63T.
2	TANKS TYPICALLY RECEIVE ONE COAT WHITE OXIDE PAINT & TWO COATS OF ALKYD-BASE-GLOSS WHITE STRUCTURAL ENAMEL.
PROPRIETARY STATEMENT	
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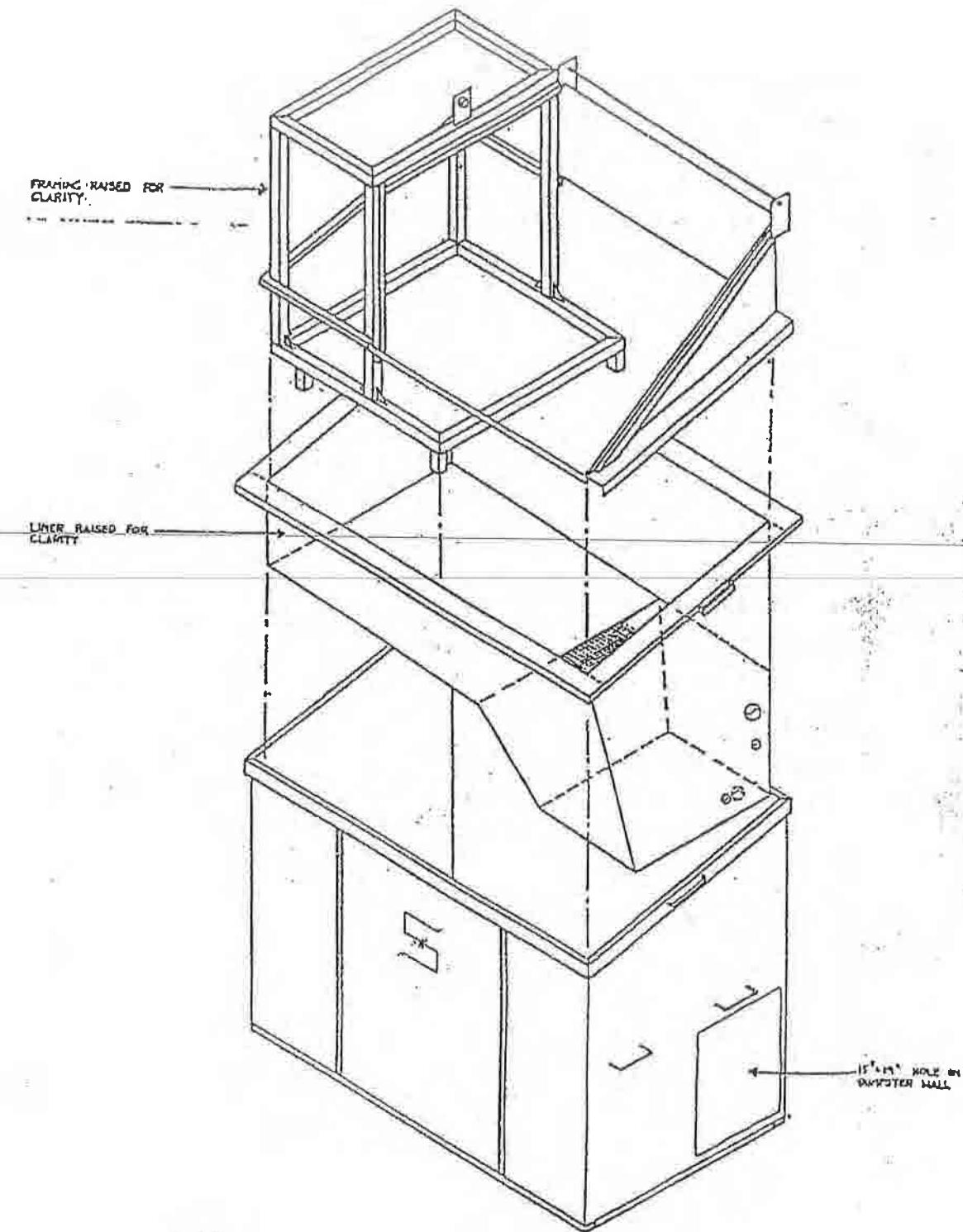
TITLE  
16,800 GALLON VERTICAL  
STORAGE TANK (LIDE IND.)

SAFETY-KLEEN SYSTEMS, INC.					
SCALE	BY	CHGD	P.E. APPR	OP. APPR	DATE
1/4" = 1'-0"	JEX	GS			0-11-01
SERVICE CENTER LOCATION					SD-DWG-REV NO.
OKLAHOMA CITY, OK					7104-4100-900
REVISIONS					SPC NO.

TANK PLAN AND ELEVATION

SCALE: 3/8" = 1'-0"

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**APPENDIX B**  
**INSPECTION AND TESTING DOCUMENTATION**

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Tank Wall Thickness Measurements

Tank Inspection Form – Used Solvent Tank

Containment Inspection Form – Vault for Used Solvent Tank

Tank Inspection Form – Drum Washers (2)

Containment Inspection Form – Vault for Drum Washers

Hydrostatic Pump Inspection Form - Piping

Leak Test Form – Used Solvent Tank

Cameras  
Tank W

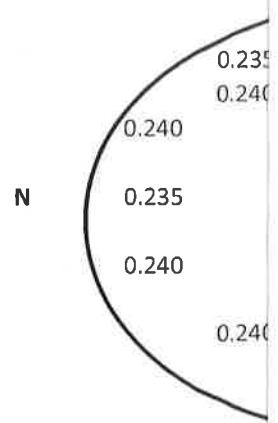
Client: Safety-Kleen System INC

Location: Wheatland, Oklahoma

Comments: Measurements were made with a Cygnus  
Meter was calibrated with 0.500 inch car  
at temperatures @ 91 °F. Measurements

Height

	E										
1	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
2	0.185	0.185	0.185	0.185	0.180	0.180	0.185	0.185	0.185	0.185	0.185
3	0.185	0.180	0.185	0.185	0.185	0.185	0.185	0.185	0.180	0.180	0.180
4	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
5	0.175	0.175	0.175	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
6	0.180	0.185	0.180	0.185	0.180	0.180	0.180	0.185	0.180	0.180	0.180
7	0.180	0.185	0.185	0.180	0.180	0.185	0.185	0.185	0.185	0.185	0.185
8	0.180	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185
9	0.185	0.185	0.185	0.185	0.180	0.185	0.185	0.185	0.185	0.185	0.185
10	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185
11	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185



Cameron-Cole LLC  
Tank Inspection form

Client: Safety-Kleen System INC Date: 9/8/2009

Location: Wheatland, Oklahoma By: JLH

Inspection Type External

Item No. Tank Year Built: 1985

Service: Used Solvent Tank

Capacity: 16,800gallon Tank Type: Vertical cylinder w/flat bottom

<u>BOTTOM</u>	<u>SHELL</u>	<u>ROOF</u>	<u>JACKET</u>
Material: Carbon steel	Carbon steel	Carbon steel	N/A

SHELL COND: SATISFACTORY

ROOF/TOP COND: SATISFACTORY

BOTTOM COND: NEEDS REPAIR Paint flaking, and peeling

JACKET COND: N/A

SUPPORT TYPE: SATISFACTORY

FOUNDATION COND: SATISFACTORY

INTERNAL STRUCTURE COND: N/A

WELDED/FLANGED JOINT COND: SATISFACTORY

NOZZLE COND: SATISFACTORY

COATING COND: NEEDS REPAIR Paint flaking on bottom

INSULATION COND: N/A

SAFETY VALVE COND: SATISFACTORY

SIGNS OF CRACKS: None

SIGNS OF LEAKAGE: None

SIGNS OF CORROSION: YES Bottom

SIGNS OF EROSION: None

TEST: Yes TYPE Hydrostatic and Thickness RESULTS Fail

OPERATING CONDITIONS: MAX TEMP amb MAX PRESS amb

Comments:

Hydrostatic test accomplished by filling tank to 80% of maximum operating capacity and the 2 drum washers to capacity and observing for leaks for over 1 hour. There were no leaks.

Solvent was then pumped to the storage tank to observe the piping and valves for leaks, none were observed. Thickness test results are on separate page.

Cameron-Cole LLC  
Containment Inspection form

Client: Safety-Kleen System INC

Date: 9/8/2009

Location: Wheatland, Oklahoma

By: JLH

Inspection Type External

Item No. Vault

Year Built: 1985

Service: Secondary Containment

LRGTANK CAPACITY 16,800gal

DIMENSION: LENGTH: 52' 2"

WIDTH: 21' 1" HEIGHT 4'

<u>BOTTOM</u>	<u>WALL/SHELL</u>	<u>ROOF</u>	<u>CAPACITY</u>	<u>32,910gal</u>
Material: Reinforced Concrete	Reinforced Concrete	NA		

SHELL CONDITION: SATISFACTORY

ROOF/TOP CONDITION: N/A

BOTTOM CONDITION: SATISFACTORY

INTERIOR COATING CONDITION SATISFACTORY

SUPPORT TYPE: SUBGRADE

FOUNDATION CONDITION: SATISFACTORY

INTERNAL STRUCTURE CONDITION SATISFACTORY

JOINT CONDITION: SATISFACTORY

EXTERIOR COATING CONDITION SATISFACTORY

SIGNS OF CRACKS: NONE

SIGNS OF LEAKAGE: NONE

SIGNS OF CORROSION: NONE

SIGNS OF EROSION: NONE

OPERATING CONDITIONS: MAX TEMP: Amb MAX PRESS: Amb

COMMENTS: Liquid is removed from tank by truck or electric sump

Cameron-Cole LLC  
Tank Inspection form

Client: Safety-Kleen System INC Date: 9/8/2009

Location: Wheatland, Oklahoma By: JLH

Inspection Type External

Item No. Drum washer (2) Year Built: 1985

Service: Transfer used solvent to used solvent storage tank

Capacity: 162 gallon each Tank Type: stand along w/ lift cover

<u>BOTTOM</u>	<u>SHELL</u>	<u>ROOF</u>	<u>JACKET</u>
Material: Carbon steel	Carbon steel	Carbon steel	N/A

SHELL COND: SATISFACTORY

ROOF/TOP COND: SATISFACTORY

BOTTOM COND: SATISFACTORY

JACKET COND: N/A

SUPPORT TYPE: SATISFACTORY

FOUNDATION COND: SATISFACTORY

INTERNAL STRUCTURE COND: SATISFACTORY

WELDED/FLANGED JOINT COND: SATISFACTORY

NOZZLE COND: SATISFACTORY

COATING COND: SATISFACTORY

INSULATION COND: N/A

SAFETY VALVE COND: SATISFACTORY

SIGNS OF CRACKS: None

SIGNS OF LEAKAGE: None

SIGNS OF CORROSION: None

SIGNS OF EROSION: None

TEST: Yes TYPE Hydrostatic RESULTS No leaks

OPERATING CONDITIONS: MAX TEMP amb MAX PRESS amb

Comments:

Ultrasonic thickness measurements on drum washer walls

east 0.135", 0.130", 0.135"

west 0.135", 0.135", 0.135"

Cameron-Cole LLC  
Containment Inspection form

Client: Safety-Kleen System INC

Date: 9/8/2009

Location: Wheatland, Oklahoma

By: JLH

Inspection Type External

Item No. Vault

Year Built: 1985

Service: Secondary Containment

LRGTANK CAPACITY 180gal

DIMENSION: LENGTH: 40'

WIDTH: 23' HEIGHT 6"

<u>BOTTOM</u>	<u>WALL/SHELL</u>	<u>ROOF</u>	<u>CAPACITY</u>
Material: Reinforced Concrete	Reinforced Concrete	Inside Building	<u>3,441 gal</u>

SHELL CONDITION: SATISFACTORY

ROOF/TOP CONDITION: SATISFACTORY

BOTTOM CONDITION: SATISFACTORY

INTERIOR COATING CONDITION SATISFACTORY

SUPPORT TYPE: SUBGRADE

FOUNDATION CONDITION: SATISFACTORY

INTERNAL STRUCTURE CONDITION SATISFACTORY

JOINT CONDITION: SATISFACTORY

EXTERIOR COATING CONDITION SATISFACTORY

SIGNS OF CRACKS: NONE

SIGNS OF LEAKAGE: NONE

SIGNS OF CORROSION: NONE

SIGNS OF EROSION: NONE

OPERATING CONDITIONS: MAX TEMP: Amb MAX PRESS: Amb

COMMENTS:  
Liquid removed by truck or by hand pump

Cameron-Cole LLC  
Hydrostatic pump Inspection form

Client: Safety-Kleen System INC

Date: 9/8/2009

Location: Wheatland, Oklahoma

By: JLH

Inspection Type Hydrostatic pump test for piping

Leaks Detected NONE

Cameron-Cole LLC  
Leak Test form

Client: Safety-Kleen System INC

Date 9/8/2009

Location Wheatland, Oklahoma

By JLH

Comments:

Tank observed during test. All joint, nozzles, valves and connections observed satisfactory with no evidence of leakage.

---

ITEM TESTED: Used solvent storage tank

NORMAL OPERATING: Atmospheric

TEST TYPE: Hydrostatic operating pressure

LIQUID LEVEL: 15' 10" Duration 1+ hr

TEST RESULTS: satisfactory

) COMMENTS:

No evidence of leaks from welds, joints or flanges during test.

**SAFETY-KLEEN PREMIUM SOLVENT  
SAFETY-KLEEN PREMIUM GOLD SOLVENT  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**



**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** SAFETY-KLEEN PREMIUM SOLVENT  
SAFETY-KLEEN PREMIUM GOLD SOLVENT

**SYNOMYS:** Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha;  
Naphtha, Solvent; Stoddard Solvent; Mineral Spirits.

**PRODUCT CODE:** 6605, 6638

**PRODUCT USE:** Cleaning and degreasing metal parts.  
If this product is used in combination with other products, refer to the  
Material Safety Data Sheet for those products.

**24-HOUR EMERGENCY PHONE NUMBER**  
These numbers are for MEDICAL AND TRANSPORTATION (SPILL):  
emergency use only. If you desire non-emergency product information, please call a phone number listed below.  
**1-800-468-1760**

**SUPPLIER:** Safety-Kleen Systems, Inc.  
5400 Legacy Drive  
Cluster II, Building 3  
Plano, Texas 75024  
USA  
**1-800-669-5740**  
[www.Safety-Kleen.com](http://www.Safety-Kleen.com)

**TECHNICAL INFORMATION:** 1-800-669-5740 Press 1 then Enter 7500

**MSDS FORM NUMBER:** 82658

**ISSUE:** November 1, 2006

**ORIGINAL ISSUE:** January 26, 1995

**SUPERSEDES:** April 20, 2004

**PREPARED BY:** Product MSDS Coordinator

**APPROVED BY:** MSDS Task Force

**SAFETY-KLEEN PREMIUM SOLVENT**  
**SAFETY-KLEEN PREMIUM GOLD SOLVENT**  
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**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

WT%	NAME	SYNONYM	CAS NO.	TWA	OSHA PEL**		ACGIH TLV®		LD <sup>a</sup>	LC <sup>b</sup>	
					STEL	ppm	TWA	STEL	ppm		
100	Distillates (petroleum), hydrotreated light	N. Av.	64742-47-8	500 <sup>c</sup> ppm 2900 <sup>c</sup> mg/m <sup>3</sup>	N. Av.	100 <sup>c</sup>	N. Av.	5000 <sup>c</sup> mg/kg	5500 <sup>c</sup> mg/m <sup>3</sup> /4h		

\*\*OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N. Av. = Not Available  
<sup>a</sup>Oral-Rat LD<sub>50</sub>

<sup>b</sup>Inhalation-Rat LC<sub>50</sub>

<sup>c</sup>Based on Stoddard Solvent

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**APPEARANCE**

Liquid, clear, colorless to pale yellow, mild hydrocarbon odor.

**WARNING!**

**PHYSICAL HAZARDS**

Combustible liquid and vapor.

**HEALTH HAZARDS**

May be harmful if inhaled.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

May be harmful if swallowed.

Contains material that may cause central nervous system and kidney damage.

**ENVIRONMENTAL HAZARDS**

Not toxic to aquatic life.

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**POTENTIAL HEALTH EFFECTS**

**INHALATION (BREATHING):** High concentrations of vapor may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

**EYES:** May cause irritation.

**SKIN:** May cause irritation. Not likely to be absorbed in harmful amounts.

**INGESTION (SWALLOWING):** May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidney, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

**CHRONIC:** Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated exposure may cause central nervous system and kidney damage. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, swelling (dermatitis) and/or burns..

**CANCER INFORMATION:** No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

**POTENTIAL ENVIRONMENTAL EFFECTS**

Product is not toxic to aquatic life. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

**SECTION 4: FIRST AID MEASURES**

**INHALATION (BREATHING):** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

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**EYES:** If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

**SKIN:** Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

**INGESTION (SWALLOWING):** Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

**NOTE TO PHYSICIANS:** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

**SECTION 5: FIRE FIGHTING MEASURES**

**FLASH POINT:** 148°F (64°C) (approximately) Tag Closed Cup

**FLAMMABLE LIMITS IN AIR:** **LOWER:** 0.7 VOL% (minimum)      **UPPER:** 5 VOL% (maximum)

**AUTOIGNITION TEMPERATURE:** 410°F (210°C) (minimum)

**HAZARDOUS COMBUSTION PRODUCTS:** Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

**CONDITIONS OF FLAMMABILITY:** Heat, sparks, or flame.

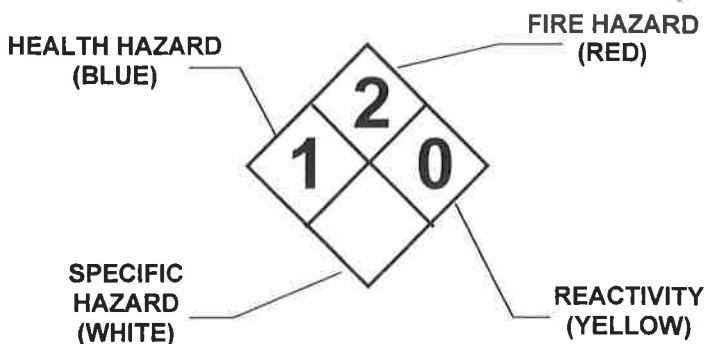
**EXTINGUISHING MEDIA:** Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

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**NFPA 704**

**HAZARD IDENTIFICATION:**

This information is intended solely for the use by individuals trained in this system.



**FIRE FIGHTING  
INSTRUCTIONS:**

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

**FIRE AND EXPLOSION  
HAZARDS:**

Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact. Products may be sensitive to static discharge, which could result in fire or explosion.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

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**SECTION 7: HANDLING AND STORAGE**

**HANDLING:** Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

**SHIPPING AND STORING:** Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

**PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY PROTECTION:** Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

**EYE PROTECTION:** Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

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**SKIN PROTECTION:** Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended.

To avoid prolonged or repeated contact with products where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

**PERSONAL HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

**OTHER PROTECTIVE EQUIPMENT:** Where spills and splashes are likely, facilities storing or using these products should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE, APPEARANCE, AND ODOR:** Liquid, clear, colorless to pale yellow, mild hydrocarbon odor.

**ODOR THRESHOLD:** 30 ppm (based on Stoddard Solvent)

**MOLECULAR WEIGHT:** Not available.

**SPECIFIC GRAVITY:** 0.77 to 0.80 at 60°F (15.6°C) (water = 1)

**DENSITY:** 6.4 to 6.7 LB/US gal (770 to 800 g/l)

**VAPOR DENSITY:** 5 (air = 1) (approximately)

**VAPOR PRESSURE:** 0.2 mm Hg at 68°F (20°C) (approximately)  
0.6 mm Hg at 100°F (37°C) (approximately)

**BOILING POINT:** 350°F (177°C) (initial)

**FREEZING/MELTING POINT:** -45°F (-43°C) (maximum)

**pH:** Not applicable.

**EVAPORATION RATE:** 0.1 (butyl acetate = 1) (based on Stoddard Solvent)

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**SOLUBILITY IN WATER:** Insoluble.

**FLASH POINT:** 148°F (64°C) (approximately) Tag Closed Cup

**FLAMMABLE LIMITS IN AIR:** LOWER: 0.7 VOL% (minimum) UPPER: 5 VOL% (maximum)

**AUTOIGNITION TEMPERATURE:** 410°F (210°C) (minimum)

**SECTION 10: STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

**INCOMPATIBILITY:** Avoid acids, alkalies, oxidizing agents, reducing agents, or reactive halogens.

**REACTIVITY:** Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

**SECTION 11: TOXICOLOGICAL INFORMATION**

**SENSITIZATION:** Based on best current information, there is no known human sensitization associated with this product.

**MUTAGENICITY:** Based on best current information, there is no known mutagenicity associated with this product.

**CARCINOGENICITY:** Based on best current information, there is no known carcinogenicity as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Also see **SECTION 15: CALIFORNIA.**

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**REPRODUCTIVE TOXICITY:** Based on best current information, there is no known reproductive toxicity associated with this product.

Also see **SECTION 15: CALIFORNIA**.

**TERATOGENICITY:** Based on best current information, there is no known teratogenicity associated with this product.

**TOXICOLOGICALLY SYNERGISTIC PRODUCT(S):** Based on best current information, there are no known toxicologically synergistic products associated with this product.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICITY:** A Static Acute Bioassay as per California Department of Fish and Game WPCL was done using fathead minnows and up to 750 ppm of the products in water. The material passed the bioassay.

**OCTANOL/WATER PARTITION COEFFICIENT:** Not available.

**VOLATILE ORGANIC COMPOUNDS:** 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l  
As per 40 CFR Part 51.100(s).

**SECTION 13: DISPOSAL CONSIDERATIONS**

**DISPOSAL:** Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

**USEPA WASTE CODE(S):** Not regulated.  
Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

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**SECTION 14: TRANSPORT INFORMATION**

**DOT:** **Bulk Packages (>119 Gallons):**  
Shipping Name: Combustible liquid, n.o.s. (petroleum naphtha) UN/NA  
#: NA1993. Hazard Class: Combustible liquid. Packing Group: III  
Required Placards: Class 3, NA1993

**Non-bulk Packages (<120 Gallons):**  
Shipping Name: Cleaning compounds (Petroleum naphtha) (Not US  
DOT regulated). UN/NA #: None. Hazard Class: None Packing  
Group: None Required Label(s): None

**TDG:** Shipping Name: Non-regulated goods.

**EMERGENCY RESPONSE** 128  
**GUIDE NUMBER:** Reference *North American Emergency Response Guidebook*

**SECTION 15: REGULATORY INFORMATION**

**USA REGULATIONS**

**SARA SECTIONS 302 AND 304:** Based on the ingredients listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA SECTIONS 311 AND 312:** This product poses the following health hazards as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard  
Delayed (Chronic) Health Hazard  
Fire Hazard

**SARA SECTION 313:** This product does not contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

**CERCLA:** Based on the ingredient listed in **SECTION 2**, this product does not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

**SAFETY-KLEEN PREMIUM SOLVENT****SAFETY-KLEEN PREMIUM GOLD SOLVENT****MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

**TSCA:** The component of this product is listed on, or is automatically included as "naturally occurring chemical substances" on, or is exempted from the requirement to be listed on, the TSCA Inventory.

**CALIFORNIA:** This product may contain a detectable amount of benzene CAS 71-43-2 (at or below 0.4 mg/L) and p-dichlorobenzene CAS 106-46-7 (at or below 5 mg/L). **WARNING:** These chemicals are known to the State of California to cause cancer.

This product may contain a detectable amount of benzene CAS 71-43-2 (at or below 0.4 mg/L) and toluene CAS 108-88-3 (at or below 30 mg/L). **WARNING:** These chemicals are known to the State of California to cause birth defects or other reproductive harm.

**CANADIAN REGULATIONS**

This product have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

**WHMIS:** Class B3 - Combustible Liquid  
Class D2B - Irritating to eyes and skin.

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):** The component of this product is listed on, or is automatically included as "substance occurring in nature" on, or is exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

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**SECTION 16. OTHER INFORMATION**

**REVISION INFORMATION:** This MSDS has been revised in the following sections:  
Sections 1 and 4: Correction of Emergency telephone numbers.  
Sections 5,9 and 12: Correction of Density, Specific Gravity and VOC content.

**LABEL/OTHER INFORMATION:** These products are United States Department of Agriculture (USDA) approved and ETL classified.

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User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein: No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.



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## APPENDIX F

- Exhibit F-1 Example Emergency Information Sheet**
- Exhibit F-2 Example Employee Emergency Functions**
- Exhibit F-3 Example Incident Report Form**
- Exhibit F-4 Site Evacuation Plan**
- Exhibit F-5 Site Emergency Equipment Location Plan**
- Exhibit F-6 Leak Detection and Repair Record**
- Exhibit F-7 Emergency Equipment List - Capabilities**

**SAFETY-KLEEN SYSTEMS INC**  
**EMERGENCY INFORMATION**  
**7528 NEWCASTLE ROAD**  
**OKLAHOMA CITY, OK 73169**  
**(405) 745 - 2025**

# **FACILITY EMERGENCY COORDINATORS**

## Primary:

Kevin Stancil 2104 Whispering Creek Drive (405) 420-4694  
Branch General Manager Edmond, Ok 73013

## Secondary:

Bruce Sharpton                    1004 SW 98<sup>th</sup>                    (405) 308-1700  
Customer Service Manager        Oklahoma City, OK 73139        (405) 761-3467

## **FACILITY NOTIFICATION NUMBERS**

## Internal

Safety-Kleen Incident 24 Hour Notification System 24 Hour (800) 468-1760

### External:

National Response Center	24- Hour	(800) 424-8802
Oklahoma Department of Environmental Quality	24- Hour	(800) 522-0206
Qualified Emergency Responder	24- Hour	(800) 468-1760

## OKLAHOMA CITY, OK EMERGENCY TEAMS

Oklahoma City Police Department	911
Oklahoma City Fire Department	911
Integris Health Baptist Medical Center	911 or (405) 949-3161

## EMPLOYEE FUNCTIONS DURING AN EMERGENCY

EMPLOYEE	EMERGENCY FUNCTION
Branch Manager (Primary Emergency Coordinator)	<ul style="list-style-type: none"> <li>Supervise all emergency actions</li> <li>Notify emergency agencies (if necessary)</li> <li>Administer first aid</li> <li>Issue evacuation order</li> </ul>
Middle Management (Alternate Emergency Coordinator)	<ul style="list-style-type: none"> <li>Supervise evacuation and emergency response actions</li> </ul>
Sales Personnel	<ul style="list-style-type: none"> <li>Retain, contain or slow the flow of released materials.</li> <li>Assist as needed</li> </ul>
Service Personnel	<ul style="list-style-type: none"> <li>Retain, contain or slow the flow of released materials.</li> <li>Assist as needed</li> </ul>
Material Handler	<ul style="list-style-type: none"> <li>Retain, contain or slow the flow of released materials.</li> <li>Shut off electricity</li> </ul>
Administrative Staff	<ul style="list-style-type: none"> <li>Assist as directed by emergency coordinator</li> <li>Make sure visitor log is taken out of facility if evacuated</li> </ul>

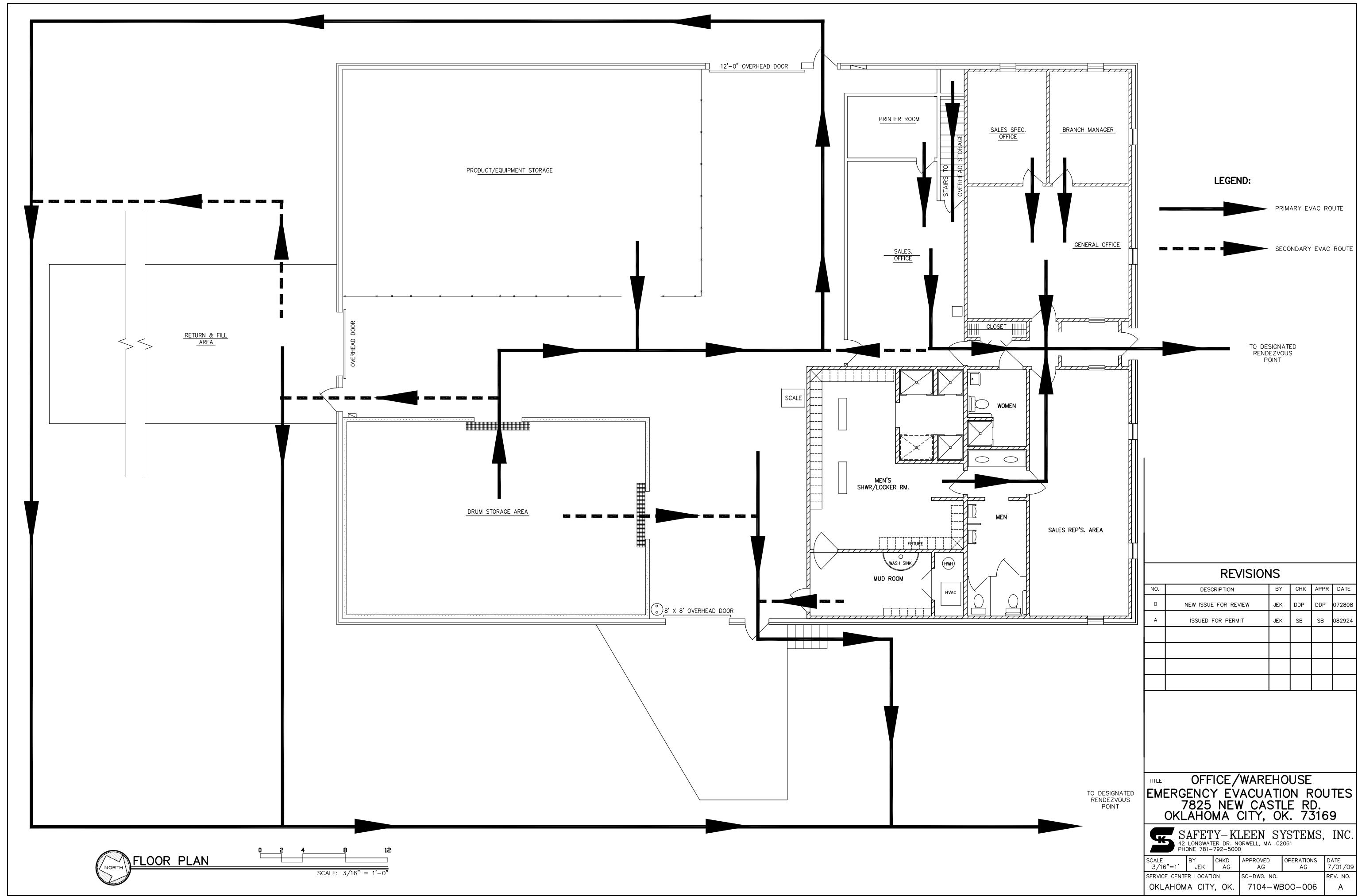


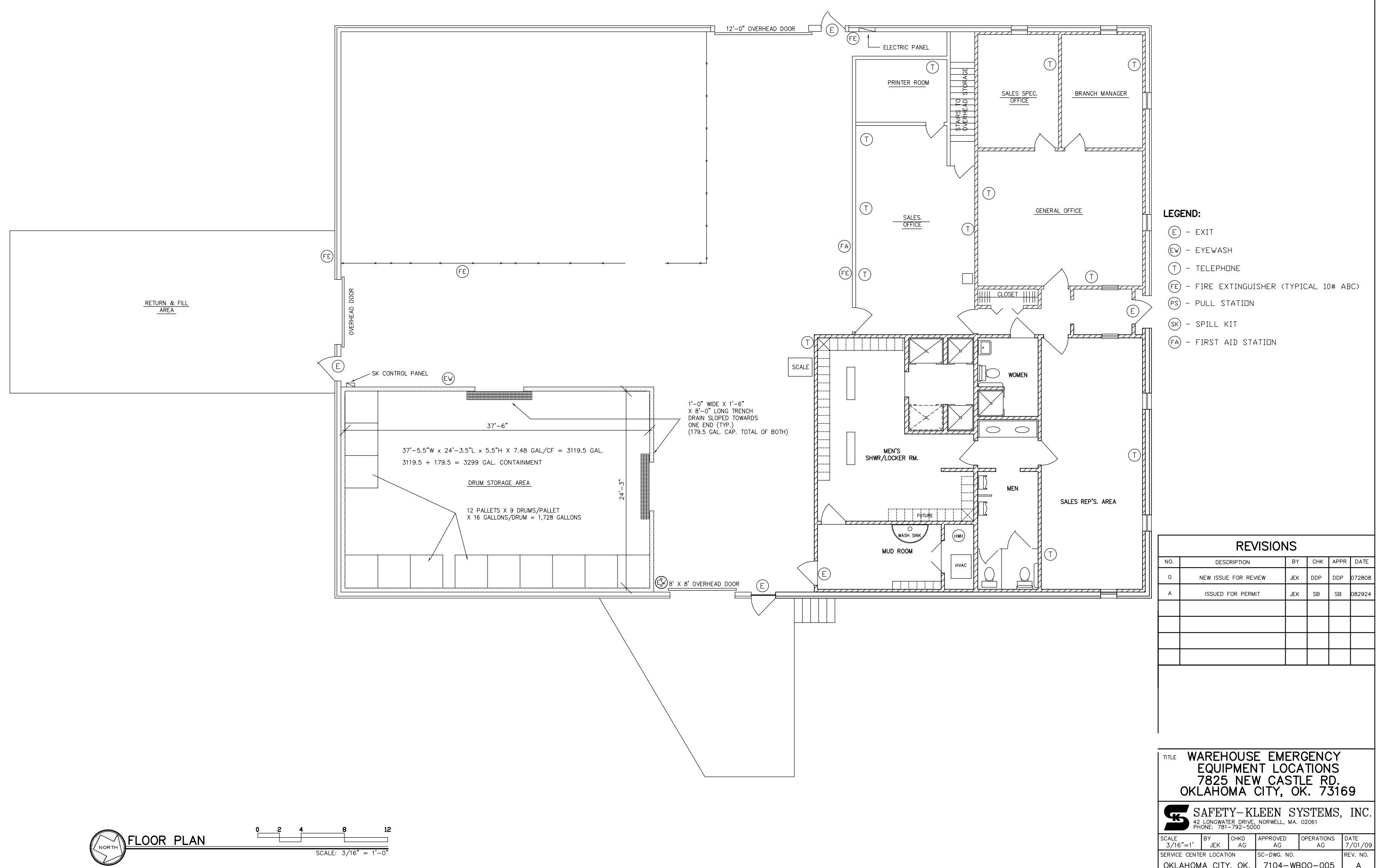
## Incident

Form Code: 7

Incident Header	
Incident Number	
Incident Date	
Description of Incident	
Incident Time	
Incident Location	
Severity	
Incident Categories	
Incident State/Province	
Incident Owner Branch	
Reported By Employee ID	
Incident Owner Employee ID	
Did you verbally notify your supervisor of this incident?	
Incident Footer	
Incident Owners should ensure the following	
1. Has the Incident Owner made the proper internal and/or external notifications of the Incident to applicable levels of management, Health & Safety, Compliance, Trans Compliance.	
2. Has the Incident Owner uploaded all the relevant information and evidence such as pictures, written statements, emails and medical note/visits (Please note to redact employee's information like SSN# and personal address from any document).	
3. Has the Incident Owner determine the applicable incident classification and severity level(s) as per Company's Severity Index.	
4. Has the Incident Owner investigated the incident and perform the casual analysis, completing the Management Team Investigation (MTI) section.	
5. Has the Incident Owner established the effective measures including the assignment of work tickets for corrective action in IMS.	
Document Upload	
Images	

Signature	
-----------	--





LEAK DETECTION AND REPAIR RECORD

EQUIPMENT I.D. # \_\_\_\_\_  
DESCRIPTION \_\_\_\_\_

BRANCH # \_\_\_\_\_

DATE

INSPECTOR'S  
SIGNATURE

HOW WAS POTENTIAL OR ACTUAL  
LEAK DETECTED? \_\_\_\_\_

DESCRIBE THE POTENTIAL OR  
ACTUAL LEAK: \_\_\_\_\_

INSTRUMENT MONITORING WITHIN  
FIVE DAYS \_\_\_\_\_

(1.) RESULTS \_\_\_\_\_

REPAIR ATTEMPT

METHOD \_\_\_\_\_

(2.) RESULTS \_\_\_\_\_

REPAIR ATTEMPT

METHOD \_\_\_\_\_

(3.) RESULTS \_\_\_\_\_

DATE OF SUCCESSFUL REPAIR

(must be completed w/in 15 days) \_\_\_\_\_

METHOD \_\_\_\_\_

(4.) RESULTS \_\_\_\_\_

FOLLOWUP MONTHLY MONITORING FOR VALVES

(5.) RESULTS \_\_\_\_\_

(6.) RESULTS \_\_\_\_\_

MONITORING SUMMARY

(REFERENCE NUMBER - SEE ABOVE)  
(1) (2) (3) (4) (5) (6)

INSTRUMENT #/OPERATOR

CALIBRATION

BACKGROUND READING

READING AT EQUIPMENT

LEAK DETECTED?

\_\_\_\_

\_\_\_\_

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ATTACH ANY DOCUMENTATION PREPARED BY THE CONSULTANT

<b>Equipment</b>	<b>Location</b>	<b>Description</b>	<b>Capabilities</b>
Gloves	Warehouse	Neoprene, Latex & Leather	Provide hand protection from cuts, splashes and exposure to contaminants
Safety Glasses	Warehouse	Glasses, goggles, face masks	Eye and splash protection
Aprons	Warehouse	Front coverage aprons	Prevent splashes to clothing
Eyewash/Shower Combo	Areas with potential contamination to eyes ( warehouse, return and fill, first aid kits)	Hard plumbed unit Portable unit Bottled eye wash	Purges contaminants from eyes and body
Eyewash			
Fire Extinguisher	Office areas, warehouses, return and fill, farm shed, tank farm, FRS shed, all trucks	10 & 20 lb units	ABC rated for wood, paper, electrical and solvent fires.
Absorbent & Spill Dry Material	Warehouse, tank farm, route trucks	Booms, pads, granular absorbent, vermiculite	Capable of absorbing liquid spills of aqueous & petroleum type spills
Respirators	Issued to individual employees	Half face or full face	Protection from exposure to organic solvents, acids gases and ammonia
Telephones	Warehouse and office	Standard office phone & company-supplied cell phones	Allows employees to summon outside assistance in case of emergency
Emergency Alarm	Return and Fill	Red push button alarm on dock	Alarm emits a loud siren, audible to surrounding area and inside office, to notify of a problem in the return and fill.
Brooms, Buckets, Mops, Portable Pump and Wet/Dry Vacuum	Warehouse		Used to contain and pick-up spills.
First Aid Kits	Warehouse All trucks		Provide medical care for minor injuries

OKD980878474

Safety-Kleen Systems, Inc.  
Oklahoma City, OK  
December 2023

## APPENDIX G

Exhibit G-1 Example Job Descriptions

Exhibit G-2 Example Regulatory Training Requirements Matrix

Exhibit G-3 Example Training Records Form

## Safety Kleen Systems Inc.

### Job Description

**Job Title:** Branch Administrator  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVPHR  
**Approved Date:** 03/26/07

**Summary:** The Branch Administrator is an administrative position responsible for maintaining detailed and accurate company, branch, and customer files.

Essential Duties and Responsibilities include but are not limited to the following.

- Assembles packages of documents for Sales Representatives.
- Check Sales or Hazardous Waste documents turned in by Sales Representatives.
- Ensure proper completion of paperwork including manifests, and alert manager of errors.
- Provide customer service functions by responding to customer inquiries and/or complaints, handling or routing service questions, and solving problem accounts.
- Prepare Manual Forms, Manifests and LDR forms, as required.
- Distribute copies of service documents and manifests to customers, various Safety-Kleen locations, and to governmental agencies, as required.
- Contact customers delinquent in payment and coordinates pick-up of payments.
- Log wastes, adjusts service scheduling, prepares reports, completes MMVR reports and checks manifests for assigned territories.
- Provide other clerical support duties as requested.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/orability required.

**Education and/or Experience:** High school **diploma** and six months+ related experience, and/or training.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product **Knowledge**, Sense of Direction, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit at a work station using the computer.

## Safety Kleen Systems Inc.

### Job Description

<b>Job Title:</b>	<b>Branch General Manager</b>
<b>Department:</b>	<b>Branch Sales &amp; Service</b>
<b>Reports To:</b>	District Manager
<b>FLSA Status:</b>	Exempt
<b>Approved By:</b>	SVPHR
<b>Approved Date:</b>	01129/07

**Summary:** The Branch General Manager is responsible for financial and operational management including: financial performance **against** quota or budget (P & L), EH&S compliance through the Environmental Management System (EMS), and operational management of the facilities and of the human resources.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Manage the branch operations including hiring, training, and supervision of the staff.
- Manage sales and service staff in achieving customer retention, on-time service performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical services skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-along with sales and service staff to ensure timely and effective servicing of customers' equipment.
- Profit or loss of the facilities) by focusing on building new business relationships and maintaining existing customer bases and satisfaction.
- Prepare branch **sales/service** forecast and budget.  
Ensure compliance with all applicable environmental, health, and safety (EHS) requirements by working with corporate EHS resources to keep an training and record keeping up to date, and by monitoring day operations to assure performance is within regulatory guidelines.
- Maintenance of branch fleet to company standards, assistance **with branch** incident alert and spill response systems, and control of branch inventory.
- Maximize collection of money at the time of service, connect on overdue accounts, and determine when *to* pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

**Supervisory Responsibility:**

The Branch General Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, corrective action and termination.

**Qualifications:** To perform this job successfully, an individual must be able *to* perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education and/or Experience:** Minimum of High School diploma or (GED). Bachelor's degree preferred. At least 5 years experience in a sales and service organization.

**Certificate&, Licenses, Registrations:** Class B CDL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit for long periods of time, use the computer, ~~as~~ as occasionally lift up to 25 pounds. There will also be some occasional need for bending, kneeling, or reaching.

**Work Environment:** While performing the duties of this job, the employee has some exposure to warehouse as well as outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat

## Safety Kleen Systems Inc.

### Job Description

**Job Title:** Customer Service Manager  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA status:** Exempt  
**Approved By:** SVPHR  
**Approved Date:** 01/29/07

**Summary:** The Customer Service Manager is responsible for ensuring optimum customer service leading to retention and expansion of the branch business. Key responsibilities include supervising customer service staff, ensuring services are completed in a timely manner, and managing customer relationships.

Essential Duties and Responsibilities include but are not limited to the following.

- Manage the branch customer service functions including hiring, training and supervision of the sales and service representatives (SSR).
- Manage sales and service staff in achieving customer retention, on-time **service** performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical service skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-alongs with sales and service staff to ensure timely and effective servicing of customer's equipment.
- Direct branch service scheduling and logistics to ensure on-time performance for all customers by aligning territories, defining routes, and managing **Associated paperwork**.
- Ensure SSR compliance with all applicable environmental, health, and safety (EHS) requirements by working with corporate EHS resources to keep all training and record keeping up to date, and by monitoring daily operations to assure performance is within regulatory guidelines.
- Work with Branch General Manager (BGM) to ensure effective operation of the branch including maintenance and operation of branch fleet to company standards, assistance with branch incident alert and spill response systems, and control of branch inventory.
- Administer branch accounts receivable program to maximize collection of money at the time of service, collect on overdue accounts, and determine when to pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

**Supervisory Responsibility:**

The Customer Service Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, and termination.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** High school diploma or (GED). 3-5 years' experience and/or related training.

**Certificates, Licenses, Registrations:** Class BCOL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently stand, walk, bend, use the computer, reach, squat, stoop and twist. The employee must frequently crouch, lift, pull or push up to 50 pounds. The employee will occasionally drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to warehouse and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat.

## Safety-Kleen Systems, Inc.

### Job Description

**Job Title:** OIL/VAC Sales and Service Rep.

**Department:** Branch Sales & Service

**Reports To:** Branch General Manager

**FLSA Status:** Exempt

**Approved By:** SVPHR

**Approved Date:** 10/2/06

**Summary:** This position combines the Oil & Vac routes and depending on the service will require the employee to remove waste fluid our customers (VSSR Route). This involves using vacuum equipment to pump waste materials and liquid from oil-water separator pits, as well as transporting & delivering the waste material to Safety-Kleen disposal sites. Or it will require the employee to remove, transport and deliver waste oil from customer facilities to Safety-Kleen oil recycling and refining centers (Oil Route). Reports to CSM or BGM.

Essential Duties and Responsibilities include the following. Other duties may be assigned.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform route: (drive to customer location, ensure each service meets the used oil or vac waste qualifications, take sample of each off or vac service & place in retain sample storage area, pump waste oil or waste materials & liquid from oil-water separator pits from customer facilities to Safety-Kleen oil recycling & refining centers or Safety-Kleen disposal site).
- Property label, scan and document waste oil (oil service) or waste materials & liquids (vac service) removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as answer any customer service issues.
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight upload.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

#### **Sales Responsibilities:**

Focus is all customer types within a particular **region or** territory for new **and existing accounts.**

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education and/or Experience:** High school diploma or (GEO). No experience necessary.

**Certificates, Licenses, Registrations:** CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention *to* Detail, Recognize the importance of, and adherence to, Safety regulations and policies, time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently kneel and stoop and constantly bend, climb, reach and twist. The employee must constantly carry, lift and pull up to 50 pounds. The employee must constantly drive a large truck and occasionally move equipment. Job will use right and left hands for repetitive movement such as Simple Grasping and Pushing/Pulling. Job will use right hand for repetitive movement such as Fine Manipulation. Job will use feet for repetitive movement such as foot controls.

**Work Environment** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## **Safety Kleen Systems Inc.**

### **Job Description**

**Job Title:** MSS  
**Department:** Sales  
**Reports To:** District Sales Manager  
**FLSA Status:** Exempt  
**Approved By:** SVPHR  
**Approved Date:** 01/29/07

**Summary:** The MSS will continually manage an account base outside of the ordinary service schedule. This position will also grow business internally and externally. The MSS will act as the primary point of contact for customers with questions / concerns / new business. This should be a motivated person who possesses consultative selling abilities and who is skilled at building long-term business relationships within the assigned sales territory.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Completion of necessary **paperwork** (Waste profiling, quotations etc).
- Communication with service, office, and warehouse staff.
- Build relationships with key buyers in territory.
- **Assess** current/potential **business** in existing accounts and create strategy to grow business.
  - Analyze customer needs and **design sales**, customer service and account management processes to acquire and retain accounts.
  - Prepare and deliver customer quotes and identify new solutions for customers
  - Provide technical and sales assistance to customers.
  - Serve as interface between customers and company by ensuring that customer needs are met and by handling customer complaints.
  - Prepare sales plans and more period forecast's.
  - Monitor and track sales plan to ensure sales quota is met; prepare regular status reports.
  - Keep abreast of products, market conditions and competitive activities.

**Qualifications:** To perform this job successfully, an individual must **be able** to perform each essential duty Safety Kleen Systems Inc. satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** Two years of college or specialized training (business or environmental) is required plus 1--3 years experience. Bachelor's degree plus coursework and certification is preferred. Alternative combinations of education and experience may be accepted in lieu of degree.

**Competencies and Skills:** Analytical, prioritization, organization, computer and leadership skills. Must be proficient working with spreadsheets as well as CRM software tools.

**Physical Demands:** While performing the duties of this job, the employee must frequently drive a car.

## **Safety Kleen Systems Inc.**

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### **Job Description**

**Job Title:** Material Handler  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt  
**Approved By:** SVPHR  
**Approved Date:** 03/26/07

**Summary:** The Material Handler works in the warehouse handling hazardous waste material using a forklift or other equipment.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Loads finished product bulk shipments, and completes Paperwork.
- Samples inbound bulk shipments and completes paperwork.
- Inventory and maintain loading and unloading areas.
- Prepares bulk wastes for shipment to other Safety-Kleen locations.
- Empties bulk into holding vessel.
- Washes "RCRA Empty" drums in drum washer and fills clean drums with solvent.
- Shrink wraps containerized wastes, arranging the waste on the pallet so all labels are showing, end prepares the shipment for transportation to other Safety-Kleen locations.
- Checks all trucks for proper strapping of drums and that cargo doors are closed.
- Disassembles returned parts washing machines and prepares them for shipment to the DC.
- Completes daily/weekly facility inspection required by Part B Permit or by Safety Kleen , as assigned by the Branch Manager.
- Monitors waste quantity and storage limits and notifies the Branch Manager if limits will be exceeded within 24-48 hours so action can be taken.
- Oversees retained sample program.
- Ensure dock, warehouse and return & fill areas are cleaned and organized at all times.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirement & listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** High school diploma and six months+ related experience, and/or training. Familiar with H.S.E. and M.S.O.S. for an product used and stored at the facility. Certified for forklift operator. Certified in hazardous waste operations and emergency response.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, and Organization skills.

**Physical Demands:** Exert up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Stands and/or walks more than 4 hours a day. Hand Tools & Small Power Tools; Hand Truck/Dolly; large Power Tools & Equipment, Forklift, Truck, Wench; Personal Protective Equipment.

## Safety-Kleen Systems, Inc.

### Job Description

**Job Title:** Sales and Service **Representative**  
**Department:** Branch Services  
Reports To: Branch Service Manager  
**FLSA Status:** Exempt  
**Approved By:** SVPHR  
**Approved Date:** 01/29/07

**Summary:** Services SKmachines at customer sites, sells new products to existing customers, removes waste from customer sites and provides on-site customer service.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels, route schedule from office staff.
- Select, pull, and **load needed** inventory (empty drums, pig products, new machines, etc) *per* route schedule.
- Perform daily truck check & complete truck check list form.
- Perform routine route
- Properly label, scan, and document waste picked up from customer site.
- Present receipt to customer as well as address any customer service issues or sales opportunities.
- Complete end of day paperwork.

**Qualifications:** To perform this job successfully, an individual must **be able** to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and hazmat certification.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills. .

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck and/or move heavy equipment.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is *occasionally* exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## Safety Kleen Systems, Inc.

### Job Description

**Job Title:** Oil Sales and Service Representative  
**Department:** Branch Services  
**Reports To:** Branch General Manager  
**FLSA Status:** Exempt/Non-Exempt  
**Approved By:** SVP HR  
**Approved Date:** 01/29/07

**Summary:** The OSSR is responsible for safely and efficiently removing, transporting and delivering waste oil from customer facilities to Safety-Kleen oil recycling and refining centers.

**Essential Duties and Responsibilities** include but are not limited to the following.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform routine route.
- Properly label, scan and document waste oil removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as **address any customer service issues and sales opportunities.**
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight **upload.**
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the **knowledge, skill, and/or ability required.**

**Education and/or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

**Certificates, Licenses, Registrations:** Class C CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl, or drive a truck with reasonable accommodations. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

Safety-Kleen Training Matrix

SK Course Code	Course Description	When	Facility Mgr	Service Rep	Admin Support	Material Handler	Sales Support
HS-101	24-Hour Hazwoper	Initial	✓	✓		✓	✓
HS-104	8-Hour Hazwoper Refresher	Annual	✓	✓		✓	✓
HS-107	Controlled Substance Abuse Training	Initial	✓	✓	✓	✓	✓
HMTS	Hazardous Materials Transportation Skills	Initial Triennial	✓	✓	✓	✓	✓
ET-176	Driver Safety Training	Initial Triennial	✓	✓			✓
ET-237	Drum Inspection and Closure	Initial Triennial	✓	✓		✓	✓
ET-140	RCRA Update	Annual	✓	✓	✓	✓	✓
HS-106	Health & Safety for Admin	Initial Triennial			✓		
ET-144	Completing the Material Profile	Initial					✓
OB_430002	Spill Response Procedure	Initial	✓	✓		✓	✓
OB_210002	Req for Generators: EPA ID # & Manifests	Initial	✓	✓	✓	✓	✓
OB_210008	Completing the Uniform Hazwaste Manifest	Initial	✓	✓	✓	✓	✓

**SAFETY-KLEEN SYSTEMS**  
**TRAINING ATTENDANCE /CERTIFICATION SHEET**

Date :\_\_\_\_\_

Location\_\_\_\_\_

Course Name:\_\_\_\_\_

Event Number:\_\_\_\_\_

Course Code\_\_\_\_\_

Time:\_\_\_\_\_ to \_\_\_\_\_

Duration\_\_\_\_\_

	PRINTED NAME	SIGNATURE	EMPLOYEE#	FACILITY (CITY, STATE)
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25 .				

The above Listed employees have satisfactorily completed the associated tests and, demonstrated satisfactory performance and comprehension of this course.

Trainer: \_\_\_\_\_ Trainer Signature: \_\_\_\_\_ Trainer Location: \_\_\_\_\_

Please print