

Public Announcement

The North Dakota Department of Environmental Quality, Division of Waste Management, is proposing approval of a permit renewal for Safety Kleen Systems, Inc. Fargo Service Center Facility.

Those wishing to comment or request a hearing on the proposed permit renewal, should notify the North Dakota Department of Environmental Quality, in writing, no later than Friday April 26, 2024. Comments should be sent to:

Derek Kannenberg, Manager
Hazardous Waste Program
North Dakota Department of Environmental Quality
Division of Waste Management
4201 Normandy Street
Fargo, ND 58503-1324

The Draft Permit and background documents may be reviewed at the North Dakota Department of Environmental Quality, Division of Waste Management, 4201 Normandy Street, 2nd Floor, Fargo, North Dakota.

For additional information please call 701-328-5166 or email istriebel@nd.gov .

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

**North Dakota Department of Environmental Quality
Public Notice of Opportunity to Comment on Draft Permit
for Safety Kleen Systems, Inc., Fargo Branch
Issued Under the North Dakota Hazardous Waste Management Rules**

The North Dakota Department of Environmental Quality, Division of Waste Management, plans to issue a permit to treat certain hazardous wastes and conduct corrective action at the:

Safety Kleen Systems, Inc., Fargo Branch
1537 First Ave S
Fargo, ND 58103

Background

Safety Kleen Systems, Inc., Fargo Branch is located in Fargo ND, at 1537 First Ave S. This facility has been operating as a storage facility since 1978 in an area zoned for limited industrial use. This facility is an accumulation point for many used materials generated by Safety Kleen Systems, Inc. customers. Waste is transported to out of state facilities for recycling or disposal. No waste is treated or disposed of on this facility's property. The existing permit has an expiration date of Sept. 28, 2023. The permit will remain in effect until a new permit has been issued.

The North Dakota Department of Environmental Quality believes that a permit which meets the requirements of the North Dakota Hazardous Waste Management Rules to protect human health and the environment can be issued to the Safety Kleen Systems, Inc., Fargo Branch and has prepared a Draft Permit with appropriate conditions according to the requirements of Chapters 33.1-24-06 and 33.1-24-07 of the North Dakota Administrative Code (NDAC).

Public Comment and Hearing

As required by NDAC § 33.1-24-07-06, the Draft Permit will be available for public review and comment for at least forty-five (45) days ending **April 26, 2024**. During that period any interested person may submit written comments and request a public hearing by stating the nature of the specific issues to be raised. If a hearing is requested, and the North Dakota Department of Environmental Quality deems a hearing necessary, a hearing will be held **March 27, 2024**, at 7:00 p.m. at the Normandy Building at 4201 Normandy St, Fargo, ND. The North Dakota Department of Environmental Quality will contact all parties who have submitted comments on the Draft Permit of the hearing if necessary.

Those wishing to provide comments, and/or request a hearing stating the nature of the specific issues to be raised, on the proposed permit should notify the North Dakota

Department of Environmental Quality, in writing, no later than **April 26, 2024**. The North Dakota Department of Environmental Quality will consider all comments prior to taking any action on the permit. Comments, questions and written communication should be directed to:

Derek Kannenberg, Manager
Hazardous Waste Program
North Dakota Department of Environmental Quality
Division of Waste Management
4201 Normandy Street
Bismarck, ND 58503-1324

The Draft Permit and background documents may be reviewed at the North Dakota Department of Environmental Quality at the address listed above and the Division of Waste Management's website:

<https://deq.nd.gov/wm/PublicNotices/default.aspx>

For additional information, please contact the North Dakota Department of Environmental Quality Hazardous Waste Program at 701-328-5166 or by email at istriebel@nd.gov.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

Fact Sheet

Safety Kleen Systems, Inc., Fargo Branch Fargo, ND EPA ID Number NDD000716738

Description of the Permit

The North Dakota Department of Environmental Quality, Division of Waste Management, plans to issue a hazardous waste storage permit renewal to:

Safety Kleen Systems, Inc.,
Fargo Branch,
HW-058
NDD000716738
1537 First Ave. South
Fargo, ND, 58103

Facility Description

The Safety Kleen Systems, Inc. Fargo Service Center Facility operates hazardous waste management units, which include a container storage area and a tank storage system to store hazardous waste solvents. All wastes are eventually shipped off-site to approved facilities for final treatment or disposal. The existing permit has an expiration date of Sept. 28, 2023. This permit will remain in effect until a new permit has been issued. The North Dakota Department of Environmental Quality believes that a permit which meets the requirements of the North Dakota Hazardous Waste Management Rules to protect human health and the environment can be issued to the Safety Kleen Systems, Inc. Fargo Service Center Facility and has prepared a Draft Permit with appropriate conditions according to the requirements of Chapters 33.1-24-06 and 33.1-24-07 of the North Dakota Administrative Code (NDAC).

Conditions

All conditions of the Draft Permit are based on rules in the North Dakota Administrative Code (NDAC), Chapters 33-24-01 through 33-24-07. The rules establish the state requirement for obtaining a permit and are based on the Hazardous Waste Management Act, North Dakota Century Code 23-20.3. The permit application, Parts A

and B, serves as a basis for the conditions in the Draft Permit. The facility must be operated as specified in the latest revision of the amended permit application and the conditions contained in the permit.

Public Notice

NDAC § 33.1-24-07-06 requires a forty-five (45) day public comment period for each Draft Permit. The public comment period for Safety Kleen Systems, Inc.'s Draft Permit will begin on March 6, 2024, and will end on April 26, 2024. The Notice will be published in the official county newspaper of the county in which the facility is located and in other major newspapers. A Notice will also be broadcast over local radio and television stations.

Those wishing to provide comments, and/or request a hearing stating the nature of the specific issues to be raised, on the proposed permit should notify the North Dakota Department of Environmental Quality, in writing, no later than April 26, 2024. The North Dakota Department of Environmental Quality will consider all comments prior to taking any action on the permit. Comments, questions and written communication should be directed to:

Derek Kannenberg, Manager
Hazardous Waste Program
North Dakota Department of Environmental Quality
Division of Waste Management
4201 Normandy Street
Bismarck, ND 58103-1324

The Draft Permit and background documents may be reviewed at the North Dakota Department of Environmental Quality at the address listed above and the Division of Waste Management's website:

<https://deq.nd.gov/wm/PublicNotices/default.aspx>

For additional information, please contact the North Dakota Department of Environmental Quality Hazardous Waste Program at 701-328-5166 or by email at **istriebel@nd.gov**.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of

written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

Hazardous Waste Permit HW-058
for
Safety-Kleen Systems, Inc.
Safety Kleen Systems, Inc., Fargo Branch
1537 First Ave South, Fargo ND 58103
EPA ID: NDD000716738

Pursuant to North Dakota Century Code ("NDCC") Chapter 23.1-04 (Hazardous Waste Management Act), and North Dakota Administrative Code ("NDAC") Article 33.1-24 (Hazardous Waste Management Rules), a permit is hereby issued by the North Dakota Department of Environmental Quality ("NDDEQ") to the Safety-Kleen Systems, Inc. (hereafter called the "Permittee") Safety-Kleen Systems, Inc., Fargo Branch (hereafter referred to as the "Facility"), EPA ID: NDD000716738, to operate hazardous waste management units which include a container storage area and a tank storage system at 1537 First Ave South, Fargo, ND, 58103 in Cass County in the state of North Dakota.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained in Modules I through VIII, all attachments, and applicable rules in NDAC Article 33.1-24. This permit is based on the premise of all information submitted in the permit application dated March 31, 2023, is accurate.

Any inaccuracies or misrepresentations found in the application may be grounds for the termination or modification of this permit in accordance with NDAC § 33.1-27-06-12 and 33.1-27-06-13. The Permittee must inform the NDDEQ of any deviations from, or changes in, the information or procedures described in the application which would affect the Permittee's ability to comply with the applicable rules or permit conditions.

This permit is effective as of **MONTH DAY, 202x**, and shall remain in effect until **MONTH DAY, 202X**, unless revoked and reissued in accordance with NDAC § 33.1-24-06-12 – or terminated in accordance with NDAC § 33.1-24-06-13.

Signature: _____
Charles R. Hyatt, Director
Division of Waste Management

Date: _____

Contents

Definitions	7
Module I: Standard Conditions.....	9
I.A. Effect of Permit.....	9
I.B. Permit Actions.....	9
I.B.1. Permit Modification, Revocation, Re-Issuance, & Termination.....	9
I.B.2. Permit Renewal.....	10
I.C. Severability.....	10
I.D. Duties & Requirements	10
I.D.1. Duty to Comply.....	10
I.D.2. Duty to Reapply	10
I.D.3. Need to Halt or Reduce Activity	10
I.D.4. Duty to Mitigate.....	10
I.D.5. Proper Operation & Maintenance	11
I.D.6. Duty to Provide Information.....	11
I.D.7. Inspection & Entry	11
I.D.8. Monitoring & Records	11
I.D.9. Signatory Requirements	12
I.D.10. Reporting Requirements.....	12
I.D.11. Transfer of Permit	12
I.D.12. 24-Hour Reporting.....	13
I.D.13. Compliance Schedules.....	14
I.D.14. Other Noncompliance	14
I.D.15. Manifest Discrepancy Reports.....	14
I.D.16. Unmanifested Waste Report	14
I.D.17. Biennial Report	14
I.D.18. Other Information	14
I.E. Signatory Requirements.....	14
I.F. Reports, Notifications and Submissions To the Department	15
I.G. Documents To Be Maintained at the Facility	15
I.H. Dispute Resolution	16
Module II: General Facility Requirements	17
II.A. Applicability.....	17

II.B.	Design and Operation of the Facility.....	17
II.C.	Off-Site Shipments	17
II.D.	General Waste Analysis.....	17
II.E.	Security	18
II.F.	General Inspection Requirements.....	18
II.G.	Personnel Training.....	19
II.H.	General Requirements for Ignitable, Reactive, or Incompatible Wastes	19
II.I.	Preparedness and Prevention	19
II.I.1.	Required Equipment.....	19
II.I.2.	Testing and Maintenance of Equipment.....	19
II.I.3.	Access to Communications or Alarm System	19
II.I.4.	Arrangements with Local Authorities.....	19
II.I.5.	Required Aisle Space	19
II.J.	Contingency Plan.....	20
II.J.1.	Implementation of Plan.....	20
II.J.2.	Copies of Plan	20
II.J.3.	Amendments to the Plan.....	20
II.J.4.	Emergency Coordinator.....	20
II.K.	Manifest System.....	20
II.L.	Recordkeeping and Reporting.....	20
II.L.1.	Operating Record.....	20
II.L.2.	Biennial Report	20
II.L.3.	Additional Reporting.....	21
II.M.	General Closure Requirements	21
II.M.1.	Performance Standard.....	21
II.M.2.	Amendment to the Closure Plan	21
II.M.3.	Notification of Closure.....	21
II.M.4.	Time Allowed for Closure	21
II.M.5.	Disposal or Decontamination of Equipment	21
II.M.6.	Certification of Closure	21
II.N.	Cost Estimates for Facility Closure	21
II.O.	Financial Assurance.....	22
II.O.1.	Closure.....	22

II.O.2.	Corrective Action	22
II.P.	Liability Requirements	22
II.Q.	Incapacity of Owners or Operators, Guarantors or Financial Institutions	22
Module III:	Storage in Containers	23
III.A.	Description of the Container Storage Area	23
III.B.	Permitted and Prohibited Waste Identification	23
III.C.	Conditions of Containers.....	24
III.D.	Compatibility of Waste Containers	24
III.E.	Management of Containers	24
III.F.	Condition of Containers	24
III.G.	Containment	25
III.H.	Inspection Schedules and Procedures	25
III.I.	Recordkeeping.....	25
III.J.	Closure	25
III.K.	Special Container Provisions for Ignitable or Reactive Waste.....	25
III.L.	Special Container Provisions for Incompatible Waste	25
III.M.	Land Disposal Restrictions.....	26
III.M.1.	General Restrictions	26
III.M.2.	Land Disposal Prohibitions and Treatment Standards.....	26
Module IV:	Storage In tanks.....	27
IV.A	Description of Storage Tank Area.....	27
IV.B	Permitted and Prohibited Waste Identification	27
IV.C.	Existing Tank System Design.....	28
IV.C.1.	Tank Construction and Storage Capacity	28
IV.C.2.	Secondary Containment System Description	28
IV.C.3.	Parts Cleaner Solvent Dumpsters	28
IV.D.	Secondary Containment.....	28
IV.E.	General Operating Requirements	28
IV.E.1.	Permissible Wastes.....	28
IV.E.2.	Spill Controls and Prevention	29
IV.E.3.	Equipment or Power Supply Failure	29
IV.F.	Response to Leaks or Spills	29
IV.G.	Inspection Schedules and Procedures	30

IV.H.	Recordkeeping and Reporting	31
IV.H.1.	Waste Analysis and Test Trials	31
IV.H.2.	Leak and Spill Reporting	31
IV.H.3.	Release Investigation Reporting	31
IV.H.4.	Repair Certification	31
IV.I.	Closure	31
IV.J.	Special Tank Provisions for Ignitable Wastes	32
Module V:	Corrective Action.....	33
V.A.	Applicability.....	33
V.B.	Notification and Assessment Requirements for Newly Identified SWMUs	33
Module VI:	Organic Air Emissions.....	34
VI.A.	Applicability.....	34
VI.B.	Emission Standards for Process Vents.....	34
VI.C.	Air Emission Standards for Equipment Leaks.....	34
VI.C.1.	Leaks from Specific Equipment.....	34
VI.C.2.	Inspection of Equipment for Air Emissions.....	34
VI.C.3.	Air Emission Documentation	34
VI.D.	Air Emission Standards for Tanks, Surface Impoundments and Containers	35
VI.D.1.	Applicability of Air Emission Standards	35
VI.D.2.	Subject Units.....	35
VI.D.3.	Record Keeping.....	35
VI.E.	Emission Control Technology	35
VI.F.	General Standards.....	35
VI.G.	Exemptions from Air Emission Standards.	35
VI.H.	Notification of a New Unit	36
Module VII:	Waste Minimization	37
VII.A.	Annual Waste Minimization Certification	37
VII.B.	Waste Minimization Certification Program.....	37
VII.B.1.	Top Management Support.....	37
VII.B.2.	Characterization of Waste Generation	37
VII.B.3.	Ongoing Waste Minimization Efforts.....	37
VII.B.4.	Cost Allocation System	37
VII.B.5.	Technology Transfer.....	38

VII.B.6.	Program Evaluation	38
VII.B.7.	Pollution Prevention Act of 1990.....	38
Module VIII:	Schedule of Compliance.....	39

DRAFT

DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in NDCC 23.1-04 and NDAC § 33.1-24-01, -02, -05, and -06 unless this permit specifically provides otherwise. Where terms are not defined in the regulation, the permit or EPA guidelines or publications, 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.

"Department" means the North Dakota Department of Environmental Quality or authorized representative.

"Facility," for purposes of this permit, includes any contiguous property and structures, other appurtenances, and improvements on the property. A facility may consist of several treatment, storage or disposal operations units, e.g., one or more landfills, surface impoundments or combinations of them.

"Heavy Liquid Service" means that a piece of equipment is not in a gas or vapor or light liquid service.

"Land Disposal," for purposes of this permit and NDAC § 33.1-24-05, means placement in or on the land, except in a CAMU, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility intended for disposal purposes.

"Light Liquid Service" means the material in contact with the equipment component is in a liquid state in which the sum of the concentration of individual constituents with a vapor pressure above 0.3 kilopascals (kPa) at 20° C is greater than or equal to 20% by weight and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20° C is equal to or greater than 20% by weight.

An "Organic Compound" is any member of a large class of gaseous, liquid, or solid chemical compounds whose molecules contain carbon.

"Parts Per Million by Weight" (PPMW) is a unit of measure of the organic content of a waste stream. A part per million is a weight to weight ratio used to describe concentration. Parts per million (PPMW) is the number of units of mass of a specific contaminant per million units of total mass of the waste stream.

"Point of Waste Origination" for the purposes of this permit means when the facility owner or operator is not the generator of the hazardous, the point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

A "release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching or disposing into the environment of any hazardous waste or hazardous constituents.

“Solid Waste” means garbage, refuse, sludge from a wastewater treatment plant, and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material and domestic sewage, solid or dissolved materials in irrigation return flows, industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

A “Solid Waste Management Unit” (SWMU) means any discernible unit which has been used for the treatment, storage or disposal of solid wastes at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. SWMUs include RCRA-regulated hazardous waste management units. Such units include any area at a facility at which solid wastes have been routinely or systematically released.

“Volatile organic compounds” (VOCs) are a subset of organic chemicals that have a high vapor pressure at ordinary, room-temperature conditions. Their high vapor pressure results from a low boiling point, which causes large numbers of their molecules to evaporate or sublime from the liquid or solid form of the compound and enter the surrounding air.

MODULE I: STANDARD CONDITIONS

I.A. Effect of Permit

The Permittee is allowed to store hazardous waste in accordance with the conditions of this permit. Any storage of hazardous waste not authorized in this permit is prohibited. Compliance with this permit constitutes compliance, for purposes of enforcement, with Chapter 23.1-04 of the North Dakota Century Code (NDCC) and Article 33.1-24 of the North Dakota Administrative Code (NDAC) except for those requirements not included in the permit which become effective by statute or which are promulgated.

Issuance of this permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations.

Compliance with the terms of this permit (NDAC § 33.1-24-06-10) does not constitute a defense to any order issued or any action brought under NDCC 23.1-04, NDAC 33.1-24, Sections 3008(a), 3007, 3013, 3004(v), 3008(c) or Section 7003 of Resource Conservation and Recovery Act (RCRA), Sections 104, 106(a), 106(e), 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.

When the Permittee is not in compliance with the conditions of the expiring or expired permit, the Department may choose to do any or all of the following:

1. Initiate enforcement action based on the permit which has been continued;
2. Issue a notice of intent to deny the new permit;
3. Issue a new permit with appropriate conditions; and/or
4. Take other actions authorized by NDAC 33.1-24.

I.B. Permit Actions

I.B.1. Permit Modification, Revocation, Re-Issuance, & Termination

This permit may be modified, revoked and reissued, or terminated for cause as specified in NDAC §§ 33.1-24-06-12 through 33.1-24-06-14. The filing of a request for permit modification, revocation and re-issuance, 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.

I.B.2. Permit Renewal

This permit may be renewed as specified in NDAC § 33.1-24-06-04(2) and Permit Module I.D.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.

I.C. Severability

The provisions of this permit are severable, as specified in NDAC § 33.1-24-07-12, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

I.D. Duties & Requirements

I.D.1. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the NDCC and is grounds for enforcement action, for permit termination, revocation and re-issuance or modification, or for denial of a permit renewal application. However, the Permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit pursuant to NDAC § 33.1-24-06-04(1).

I.D.2. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a new permit at least one hundred eighty (180) days before this permit expires pursuant to NDAC § 33.1-24-06-04(2).

I.D.3. Need to Halt or Reduce Activity

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 pursuant to NDAC § 33.1-24-06-04(3).

I.D.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 any adverse impacts on human health or the environment pursuant to NDAC § 33.1-24-06-04(4).

I.D.5. Proper Operation & Maintenance

The Permittee shall at all times properly operate and maintain all facilities, systems 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 procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit pursuant to NDAC § 33.1-24-06-04(5).

I.D.6. Duty to Provide Information

The Permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit pursuant to NDAC § 33.1-24-06-04(8).

I.D.7. Inspection & Entry

The Permittee shall allow the Department, 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 activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized, any substances or parameters at any location pursuant to NDAC § 33.1-24-06-04(9).

I.D.8. Monitoring & Records

Samples and measurements taken for the purposes of monitoring must be representative of the monitoring activity.

The Permittee shall retain, at the facility, records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, the certification required by NDAC § 33.1-24-05-40(2)(i), and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report, certification or application. This period may be extended by the request of the Department at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility pursuant to NDAC § 33.1-24-06-04(10).

Records of monitoring information must include:

- a. The date, exact place, and time of sampling or measurements;
- b. The names of individuals who performed the sampling or measurements;
- c. The dates analyses were performed;
- d. The names of individuals who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

I.D.9. Signatory Requirements

All applications, reports or information submitted to the Department must be signed and certified, as described in NDAC § 33.1-24-06-03, pursuant to NDAC § 33.1-24-06-04(11).

I.D.10. Reporting Requirements

- a. *Planned Changes.* The Permittee shall give notice to the Department, as soon as possible, of any planned physical alterations or additions to the permitted facility pursuant to NDAC § 33.1-24-06-04(12)(a).
- b. *Anticipated Noncompliance.* The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements pursuant to NDAC § 33.1-24-06-04(12)(b).

I.D.11. Transfer of Permit

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to NDAC §§ 33.1-24-06-11(2) or 33.1-24-06-12(2)(b). 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 NDAC Chapters 33.1-24-05 and 33.1-24-06 and this permit.

I.D.12. 24-Hour Reporting

- a. *Noncompliance With Permit.* The Permittee shall report to the Department any noncompliance with this permit which may endanger human health or the environment.
- b. *Oral Reporting.* Any information shall be reported orally within twenty-four hours from the time the Permittee becomes aware of the circumstances. The following shall be included as information which must be reported orally:
 1. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies; and
 2. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management units, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause 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;
 - d. Name and quantity of materials involved;
 - e. The extent of injuries, if any;
 - f. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - g. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission must also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is

expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- d. The Department may waive the five-day written notice in favor of a written report within fifteen (15) days.

I.D.13. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen days following each schedule date.

I.D.14. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under I.D.10 and I.D.12., when monitoring reports are submitted. The report must contain the information listed in subdivision f.

I.D.15. Manifest Discrepancy Reports

If a significant discrepancy in a manifest is discovered, the permittee shall attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee shall submit a letter report, including a copy of the manifest to the department.

I.D.16. Unmanifested Waste Report

An unmanifested waste report must be submitted to the department within fifteen days of receipt of unmanifested waste.

I.D.17. Biennial Report

A biennial report must be submitted covering facility activities during odd-numbered calendar years.

I.D.18. Other Information

Where the Permittee becomes aware that the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the department, the permittee shall promptly submit such facts or information.

I.E. Signatory Requirements

All applications, reports or information submitted to or requested by the Department shall be signed and certified as required by NDAC § 33.1-24-06-03.

I.F. Reports, Notifications and Submissions To the Department

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

North Dakota Department of Environmental Quality
Division of Waste Management
4201 Normandy Street
Fargo, ND 58103
Telephone Number: 701-328-5166

I.G. Documents To Be Maintained at the Facility

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

- a. Waste Analysis Plan as required by NDAC § 33.1-24-05-04(2) and this permit.
- b. Personnel training documents and records as required by NDAC § 33.1-24-05-07(4) and this permit.
- c. Contingency plan as required by NDAC § 33.1-24-05-26(1) and this permit.
- d. Closure plan as required by NDAC § 33.1-24-05-61(1) and this permit.
- e. Operating record as required by NDAC § 33.1-24-05-40(1) and this permit.
- f. Inspection schedules as required by NDAC § 33.1-24-05-06(4) and this permit.
- g. Copies of manifests for hazardous waste shipments transported off site for at least three (3) years as required by NDAC § 33.1-24-03-13(1), NDAC § 33.1-24-03-07 and this permit.
- h. Copies of manifests or shipping papers for hazardous waste shipments received from off-site generators for at least three (3) years as required by NDAC § 33.1-24-03-13(1), NDAC § 33.1-24-03-07 and this permit.
- i. Cost Estimate for closure as required by NDAC § 33.1-24-05-76(1)(d) and this permit
- j. For each shipment of restricted waste to an off-site facility, the information required by NDAC § 33.1-24-05-256(1) pursuant to NDAC § 33.1-24-06-05(2)(b).

k. A copy of the latest revision of the amended Part B application for Safety Kleen Systems, Inc., State/EPA ID Number NDD000716738 NDAC § 33.1-24-03-13(1), NDAC § 33.1-24-03-07, and the most current permit with attachments.

l. All other documents required by this permit.

I.H. Dispute Resolution

Except as otherwise provided in this permit, in the event the Permittee disagrees, in whole or part, with Department disapproval or modification of any submission, the Permittee shall notify the Department of its objections by providing the Department with a written statement of position within fourteen (14) calendar days of receipt of the Department's disapproval or modification. The Permittee's statement of position shall set forth the specific matters in dispute, the position that the Permittee asserts should be adopted as consistent with the requirements of this permit, the basis for the Permittee's position, and shall include any supporting documentation.

The Division of Waste Management and the Permittee shall have an additional fourteen (14) calendar days from the Department's receipt of the Permittee's statement of position to meet or confer to attempt to resolve the dispute. If agreement is reached, the Permittee shall submit a revised submission and shall implement the same in accordance with such agreement.

If the Division of Waste Management and the Permittee are not able to reach agreement within the 14-day period, the Permittee may meet or confer with the Director of the Department of Environmental Quality to attempt to resolve the dispute. If agreement is reached, the Permittee shall submit a revised submission and shall implement the same in accordance with the terms and conditions of the decision on the dispute.

If the Director of the Department of Environmental Quality and the Permittee are not able to reach agreement within a 14-day period, the Director of the Department of Environmental Quality will thereafter notify the Permittee, in writing, of his decision on the dispute and the Permittee shall comply with the terms and conditions of the decision on the dispute.

Notwithstanding the invocation of this dispute resolution procedure, the Permittee shall proceed, at the direction of the Department, to take any action required by those portions of the submission and of the permit that the Department determines are not substantially affected by the dispute.

[End of Module I]

MODULE II: GENERAL FACILITY REQUIREMENTS

II.A. Applicability

The requirements of this Permit Module apply as they pertain to the hazardous waste management units identified within Modules III and IV of this permit.

II.B. Design and Operation of the Facility

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil or surface water which could threaten human health or the environment, as required by NDAC § 33.1-24-05-15.

II.C. Off-Site Shipments

The Permittee shall notify the Department and the U.S. Environmental Protection Agency, in writing, at least four (4) weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source, as required by NDAC § 33.1-24-05-03(1).

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), the Permittee shall inform the generator, in writing, that the Permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee shall keep a copy of this written notice as part of the operating record as required by NDAC § 33.1-24-05-03(2).

II.D. General Waste Analysis

The Permittee shall follow the waste analysis procedures required by NDAC § 33.1-24-05-04, as described in the Waste Analysis Plan (Section C-2, Exhibit C-3 and Exhibit C-4 of the approved permit application). The Permittee may not submit waste analysis data gathered from other Safety Kleen Systems, Inc., facilities in lieu of waste analysis data for this facility.

The Permittee shall verify the analysis of each waste stream annually as part of its Quality Assurance Program, in accordance with, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, (latest revision) and Standard Methods Wastewater Analysis or equivalent methods approved by the Department.

At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform the analysis, then the Permittee shall inform the laboratory, in writing, that it must operate under the waste analysis conditions set forth in the permit.

The Permittee must submit to the Department waste analysis data as specified below within twenty-one (21) days of the analysis report date of October 31st of each year. The report shall contain, at a minimum, the information listed in I.D.8. and must contain a report date. The analysis must be conducted by a Department certified laboratory.

The wastes to be analyzed and minimum parameters to be analyzed are:

Table 1. Minimum parameters for annual recharacterization.

Waste Description	Parameters
All spent parts washer solvent	Flashpoint, TCLP, Excluding pesticides and herbicides Total organic halogens
Spent parts cleaning solvent storage tank bottom sediment	Flashpoint, TCLP, Excluding pesticides and herbicides Total organic halogens
Spent Parts cleaning solvent dumpster sediment	Flashpoint, TCLP, Excluding pesticides and herbicides Total organic halogens

For the purposes of compliance with this permit condition, the Permittee shall obtain waste sample(s) and receive analytical results prior to commingling for transporting those wastes with any waste not collected by or generated by either the Safety Kleen Systems, Inc., Bismarck or Safety Kleen Systems, Inc., Fargo facility.

II.E. Security

The Permittee shall comply with the security provisions as specified in Section F of the approved permit application and NDAC § 33.1-24-05-05(2) and (3).

II.F. General Inspection Requirements

The Permittee shall follow the self-inspection requirements set out in NDAC § 33.1-24-05-06 and Section F-2 of the approved permit application.

The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by NDAC § 33.1-24-05-06(3) and the permit application.

Records of inspection shall be kept as required by NDAC § 33.1-24-05-06(4).

II.G. Personnel Training

The Permittee shall conduct personnel training as required by NDAC § 33.1-24-05-07. This training program shall follow the program as detailed in Section H and Exhibits H-1, H-2, H-3 of the approved permit application. The Permittee shall maintain training documents and records as required by NDAC § 33.1-24-05-07(4) and (5).

II.H. General Requirements for Ignitable, Reactive, or Incompatible Wastes

The Permittee shall comply with the requirements of NDAC § 33.1-24-05-08.

II.I. Preparedness and Prevention

II.I.1. Required Equipment

At a minimum, the Permittee shall equip the facility and hazardous waste management units with the equipment set forth in the approved Contingency Plan found in Section G of the approved permit application and as required by NDAC § 33.1-24-05-16.

II.I.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.I.1., as necessary to ensure its proper operation in time of emergency as required by NDAC § 33.1-24-05-17.

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

The Permittee shall maintain access to the communications or alarm system as required by NDAC § 33.1-24-05-18.

II.I.4. Arrangements with Local Authorities.

The Permittee shall maintain arrangements with state and local authorities as required by NDAC § 33.1-24-05-20. 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.

III.I.5. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space as required by NDAC § 33.1-24-05-19 and Section D-1a(2) and Section F-3b of the approved permit application.

II.J. Contingency Plan

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan (Section G of the approved permit application) whenever there is a fire, explosion or release of hazardous waste, or constituents which could threaten human health or the environment. As applicable, the plan must cover the requirements of NDAC § 33.1-24-05-26 through 32.

II.J.2. Copies of Plan

The Permittee shall comply with the requirements of NDAC § 33.1-24-05-28. The most recent copy of the plan will be maintained on-site.

II.J.3. Amendments to the Plan

The Permittee shall review and immediately amend, if necessary, the plan as required by NDAC § 33.1-24-05-29.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency as required by NDAC § 33.1-24-05-30.

II.K. Manifest System

The Permittee shall comply with the manifest requirements of NDAC §§ 33.1-24-05-38, -39, and -43. In addition, the Permittee shall comply with the additional reporting requirements of NDAC § 33.1-24-03-16.

II.L. Recordkeeping and Reporting

In addition to the recordkeeping and reporting requirements specified elsewhere in this permit, the Permittee must also maintain the following records:

II.L.1. Operating Record

The Permittee shall maintain a written Operating Record at the facility in accordance with NDAC § 33.1-24-05-40.

II.L.2. Biennial Report

The Permittee shall comply with the biennial report requirements of NDAC § 33.1-24-05-42.

II.L.3. Additional Reporting

The Permittee shall comply with the additional reporting requirements of NDAC § 33.1-24-03-16.

II.M. General Closure Requirements

II.M.1. Performance Standard

The Permittee shall close the hazardous waste management units as required by NDAC § 33.1-24-05-60 and in accordance with the Closure Plans included in Section I of the approved permit application.

II.M.2. Amendment to the Closure Plan

The Permittee shall amend the Closure Plans in accordance with NDAC § 33.1-24-05-61(3) whenever necessary or required by the Department.

II.M.3. Notification of Closure

The Permittee shall notify the Department, in writing, at least sixty (60) calendar days prior to the date on which the Permittee expects to begin closure of the hazardous waste treatment surface impoundments or final closure of the facility, as required by NDAC § 33.1-24-05-61(4).

II.M.4. Time Allowed for Closure

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 NDAC § 33.1-24-05-62 and the schedules specified in the approved Closure Plans (Section I of the approved permit application).

II.M.5. Disposal or Decontamination of Equipment

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils as required by NDAC § 33.1-24-05-63 and the approved Closure Plan (Section I of the approved permit application).

II.M.6. Certification of Closure

The Permittee shall certify that the hazardous waste management unit has been closed in accordance with the specifications in the approved Closure Plan as required by NDAC § 33.1-24-05-64.

II.N. Cost Estimates for Facility Closure

The Permittee's most recent Closure Cost Estimate, prepared in accordance with NDAC § 33.1-24-05-76, is specified in Exhibit I-1 of the approved permit application. The

Permittee must adjust the Closure Cost Estimate for inflation in accordance with NDAC § 33.1-24-05-76.

II.O. Financial Assurance

II.O.1. Closure

The Permittee shall demonstrate continuous compliance with NDAC § 33.1-24-05-77 by providing documentation of financial assurance, as required by NDAC § 33.1-24-05-81, in at least the amount of the cost estimates required by Permit Condition II.N. Changes in financial assurance mechanisms must be approved by the Department pursuant to NDAC § 33.1-24-05-77.

II.O.2. Corrective Action

The Permittee shall demonstrate financial assurance for continual implementation of the approved remedy. The mechanism for financial assurance shall be one that is allowable under NDAC § 33.1-24-05-77.

II.P. Liability Requirements

The Permittee shall demonstrate continuous compliance with the requirements of NDAC § 33.1-24-05-79 and the documentation required by NDAC § 33.1-24-05-81, including the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1,000,000 per occurrence with an annual aggregate of at least \$2,000,000, exclusive of legal defense costs.

The Permittee shall demonstrate continuous compliance with the requirements of NDAC § 33.1-24-05-79 and the documentation required by NDAC § 33.1-24-05-81, including the requirements to have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least \$3,000,000 per occurrence with an annual aggregate of at least \$6,000,000, exclusive of legal defense costs.

II.Q. Incapacity of Owners or Operators, Guarantors or Financial Institutions

The Permittee shall comply with NDAC § 33.1-24-05-80 whenever necessary.

[End of Module II]

MODULE III: STORAGE IN CONTAINERS

III.A. Description of the Container Storage Area

Hazardous waste will be stored and managed in containers at the existing hazardous waste storage facility. The dimensions of the container storage area are as described in Section D-1, Exhibit D1-1, and Exhibit D1-4 of the approved permit application.

The maximum volume of hazardous waste allowed for storage is equivalent to 2,400 gallons as stated in Section D-1 of the approved permit application. The containment calculations are included in Exhibit D1-4 of the approved permit application.

III.B. Permitted and Prohibited Waste Identification

The Permittee may store the following wastes in containers at the facility subject to the terms of this permit:

Table 2. Wastes permitted for storage in containers.

Hazardous Waste	EPA Hazardous Waste Number
Dry-Cleaning Waste	F002, D004, D005, D006, D007, D008, 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.
Aqueous Parts Cleaner Waste	D004, D005, D006, D007, D008, 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.
Immersion Cleaner Waste	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.
Dumpster Sediment from Drum Washer/Dumpster	D001, D004, D005, D006, D007, D008, 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.
Bottom Sediment From Spent Parts Washer Solvent Tank	D001, D004, D005, D006, D007, D008, 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.
Photographic Imaging Waste	D011

Table 2. Wastes permitted for storage in containers. (Continued)

Hazardous Waste	EPA Hazardous Waste Number
Contaminated Debris	F001, F002, F003, F005, 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.

The permittee is prohibited from storing hazardous waste not identified in Permit Module III.B.

Containers that exhibit the characteristic of ignitability (D001) may remain on-site no longer than ten (10) days. Containers that exhibit the characteristic of ignitability shall be labeled with the accumulation start date when first placed in the container storage area.

III.C. Conditions 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 as required by NDAC § 33.1-24-05-90. The Permittee shall perform the above actions no later than twenty-four (24) hours after discovery.

III.D. Compatibility of Waste Containers

The Permittee shall assure that the ability of the container to contain the waste is not impaired, as required by NDAC § 33.1-24-05-91.

III.E. Management of Containers

The Permittee shall manage containers as required by NDAC § 33.1-24-05-92 and Section D-1a(2) of the approved permit application.

III.F. Condition of Containers

The Permittee shall assure that the ability of the container to contain the waste is not impaired as required by NDAC § 33.1-24-05-91, Section C-1a and Section D-1 of the approved permit application.

III.G. Containment

The Permittee shall maintain the containment system in accordance with the requirements of NDAC § 33.1-24-05-94 and the applicable parts of Section D-1 of the approved permit application.

III.H. Inspection Schedules and Procedures

The Permittee shall inspect the container storage area a minimum of weekly in accordance with the inspection schedule as required by NDAC § 33.1-24-05-93, D-1a(3)(a), Exhibit F-5 and Exhibit F-9 of the approved permit application to detect leaking containers, deterioration of containers or the containment system caused by corrosion and other factors.

III.I. Recordkeeping

The Permittee shall place the results of all waste analysis and trial tests in the Facility operating record as required by NDAC § 33.1-24-05-40.

III.J. Closure

At closure of the container storage area, the Permittee shall remove all hazardous waste and hazardous waste residue from the containment system, in accordance with the procedures in the Closure Plan, Section I of the approved permit application and NDAC § 33.1-24-05-97.

III.K. Special Container 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 as required by NDAC § 33.1-24-05-95.

The permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures specified in Section C-2f of the approved permit application and as required by NDAC § 33.1-24-05-08 and NDAC § 33.1-24-05-96.

III.L. Special Container Provisions for Incompatible Waste

The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container. Hazardous waste shall not be placed into an unwashed container that previously held an incompatible waste or material. The Permittee shall separate containers of incompatible waste as required by NDAC § 33.1-24-05-96(3).

The Permittee must document compliance with this module as required by NDAC § 33.1-24-05-08(3), and place this documentation in the operating record.

III.M. Land Disposal Restrictions

The permittee shall comply with all federal regulatory requirements which are promulgated in 40 CFR Part 268 and effective prior to adoption and amending the North Dakota Hazardous Waste Rules, as required by NDAC § 33.1-24-06-09.

III.M.1. General Restrictions

NDAC § 33.1-24-05-250 through NDAC § 33.1-24-05-290 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in the land treatment, storage or disposal unit. The Permittee shall maintain compliance with all of the requirements of NDAC § 33.1-24-05-250 through NDAC § 33.1-24-05-290.

III.M.2. Land Disposal Prohibitions and Treatment Standards

A restricted waste identified in NDAC § 33.1-24-05-266 through NDAC § 33.1-24-05-279 may not be placed in a land disposal unit unless the requirements of NDAC § 33.1-24-05-270 through NDAC § 33.1-24-05-289 are met.

The storage of hazardous wastes restricted from land disposal under NDAC § 33.1-24-05-250 through NDAC § 33.1-24-05-290 is prohibited unless the requirements of NDAC § 33.1-24-05-290 are met.

[End of Module III]

MODULE IV: STORAGE IN TANKS

IV.A Description of Storage Tank Area

The conditions of this module pertain to the storage of hazardous waste in the tank system specified in Section D-2 of the approved permit application. As used in the permit, a "tank system" includes a hazardous waste storage or treatment tank, its ancillary equipment, and secondary containment system. "Ancillary equipment" means any device including, but not limited to, piping fittings, flanges, valves and pumps used to distribute, meter or control the flow of hazardous waste from the point of generation to the point of shipment off-site. Tanks and ancillary equipment are all "components" of a tank system.

IV.B Permitted and Prohibited Waste Identification

The Permittee shall mark the tank designated for hazardous waste storage with the words "HAZARDOUS WASTE" in letters at least four (4) inches in height, and in a color to contrast with the tank. Hazardous waste placed in any other tank, without first receiving a modification to this permit, shall be considered a violation of this permit.

The Permittee may store the following hazardous wastes in the tank, subject to the terms of this permit:

Table 3. Wastes permitted for storage in tanks.

Hazardous Waste	EPA Hazardous Waste Number
Spent Parts Cleaning Solvent	D001, D004, D005, D006, D007, D008, 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.
Aqueous Parts Cleaner Waste	D004, D005, D006, D007, D008, 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.

Hazardous wastes not identified in Permit Condition IV.B. may not be stored in the hazardous waste tank.

IV.C. Existing Tank System Design

The spent parts cleaner solvent storage tank system consists of the 12,000-gallon tank and tank's secondary containment system, the dumpster/drum washer and secondary containment system, and all ancillary equipment as diagrammed in Exhibits D2-1, D2-2, D2-3, D2-4, D2-5, D2-6, D2-7, D2-8, D2-9, and D2-10 of the approved permit application. The spent parts cleaner solvent storage tank is located outside and adjacent to the hazardous waste container storage area.

IV.C.1. Tank Construction and Storage Capacity

The spent parts cleaner solvent storage tank is an existing 12,000-gallon, horizontal aboveground tank. The upper two thirds is constructed of 3/16-inch carbon steel and the lower third constructed of 1/4 -inch carbon steel. This tank stores spent parts cleaner solvent prior to transfer to a tanker truck for transportation to an appropriately permitted Facility.

IV.C.2. Secondary Containment System Description

The spent parts cleaner solvent storage tank has secondary containment which consists of a steel-reinforced concrete slab and dike wall. The dike wall is 0.75 ft thick, while the floor of the slab is 0.5 ft thick. The concrete has a protective coating to prevent seepage through pores and cracks. The spent mineral spirits dumpster is part of the return and fill station.

IV.C.3. Parts Cleaner Solvent Dumpsters

Containers of spent parts cleaner solvent are poured into the dumpster where the spent parts cleaner solvent is pumped, without storage, by aboveground piping to the spent mineral spirits storage tank. The dumpster is constructed of carbon steel and has secondary containment in the form of two metal pans which are as diagrammed in Exhibits D2-1 and D2-2 of the approved permit application. The containment capacity of these pans is 201-gallons.

IV.D. Secondary Containment

The Permittee shall operate the secondary containment system, in accordance with the detailed design plans and descriptions contained in Sections D-2 and associated Exhibits of the approved permit application to meet the requirements of NDAC § 33.1-24-05-106(2) through NDAC § 33.1-24-05-106(6).

IV.E. General Operating Requirements

IV.E.1. Permissible Wastes

The Permittee shall only store hazardous waste as specified in Permit Condition IV.B.

IV.E.2. Spill Controls and Prevention

The Permittee shall, at a minimum, use the controls and practices to prevent spills and overflows from the tank or containment system, as specified in Section D-2 and Section F of the approved permit application.

IV.E.3. Equipment or Power Supply Failure

The Permittee shall cease operating the affected tank system in the event of an equipment or power supply failure.

IV.F. Response to Leaks or Spills

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately or complete the following actions as required by NDAC § 33.1-24-05-109(1) through NDAC § 33.1-24-05-109(6).

- a. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.
- b. Remove waste and any accumulated liquids from the system within twenty-four (24) hours of the detection of the leak to prevent further release and allow inspection and repair of the system.
- c. Contain any 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 soils or surface water; and
 2. Remove and properly dispose of any visible contamination in the soil or surface water.
- d. Close the system in accordance with the closure plan specified in Section I of the approved permit application unless the following actions are taken:
 1. 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;
 2. 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;

3. For a release to the environment caused by a leak from the aboveground portion of the tank system that does not have secondary containment, and can be visually inspected, the Permittee shall repair the tank system before returning it to service;
 4. If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in NDAC § 33.1-24-05-105.
- e. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are installation of an internal liner, repair of ruptured tank or repair or replacement of secondary containment vessel.

IV.G. Inspection Schedules and Procedures

The Permittee shall inspect the tank system in accordance with the inspection schedule specified in Section D-2d of the approved permit application. The Permittee shall complete the following condition as part of these inspections:

- a. The Permittee shall inspect the overfill controls in accordance with the inspection schedule as required by NDAC § 33.1-24-05-108(1);
- b. The Permittee shall inspect, at least once each operating day, data gathered from monitoring and leak detection equipment to ensure the tank system is being operated according to its design as required by NDAC § 33.1-24-05-108(2);
- c. The Permittee shall inspect the following components of the tank system once each operating day, as required by NDAC § 33.1-24-05-108(3):
 1. Aboveground portions of the tank system to detect corrosion or releases of wastes; and
 2. The construction materials and the area immediately surround the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste.
- d. The Permittee shall document compliance with Conditions IV.G.1. through IV.G.3. and place this documentation in the operating record for the Facility, as required by NDAC § 33.1-24-05-108(7).

IV.H. Recordkeeping and Reporting

IV.H.1. Waste Analysis and Test Trials

The Permittee shall place the results of all waste analysis and trial tests in the Facility Operating record as required by NDAC § 33.1-24-05-40. The facility is assumed to be in heavy liquid service and the Permittee shall maintain the necessary documentation at the facility to support this assumption.

IV.H.2. Leak and Spill Reporting

The Permittee shall report to the Department within twenty-four (24) hours of detection when a leak or spill occurs from the tank system or secondary containment system to the environment as specified in Section G-4j(4) of the approved permit application.

IV.H.3. Release Investigation Reporting

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 the Department:

- a. Likely route of migration of the release;
- b. Characteristic 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 shall provide the Department 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 area; and
- e. Description of response actions taken or planned.

IV.H.4. Repair Certification

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

IV.I. Closure

The Permittee shall close the tank system in accordance with the closure plan in Section I of the approved permit application.

If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated in accordance with the closure plan, the Permittee shall close the tank system and perform postclosure care as required by NDAC § 33.1-24-05-110(2).

IV.J. Special Tank Provisions for Ignitable Wastes

The Permittee shall not place ignitable waste in the tank system or in the secondary containment system, unless as required by NDAC § 33.1-24-05-111.

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 adjoining property line that can be built upon, as required by in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981).

DRAFT

[End of Module IV]

MODULE V: CORRECTIVE ACTION

V.A. Applicability

The conditions of this module apply to any Solid Waste Management Units(s) (SWMUs) located at the Facility where hazardous wastes or hazardous constituents have been released and discovered during the course of groundwater monitoring, field investigations, and environmental audits or other means.

V.B. Notification and Assessment Requirements for Newly Identified SWMUs

The permittee shall notify the Department, in writing, within fifteen (15) days of discovery of any SWMUs as discovered under Permit Condition V.A. The notification shall include, at a minimum, the location of the SWMU and all available information pertaining to the nature of the release (e.g. media affected, hazardous wastes or hazardous constituents released, magnitude of release, etc.). If the Department determines that further investigation of the SWMU is required, the permit shall be modified in accordance with NDAC § 33.1-24-06-12.

For any discovered SWMUs, the Permittee, as required by NDAC § 33.1-24-05-58(2) and NDCC Chapter 61-28, shall implement corrective actions beyond the Facility property boundary, where necessary, to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Department 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 off-site access is denied. Onsite measures to address such releases will be determined on a case-by-case basis.

[End of Module V]

MODULE VI: ORGANIC AIR EMISSIONS

VI.A. Applicability

Organic Air Emission Standards NDAC § 33.1-24-05-400 through NDAC § 33.1-24-05-474 applies to hazardous waste treatment, storage, and disposal facilities, recycling units and miscellaneous units and their associated auxiliary equipment and systems.

VI.B. Emission Standards for Process Vents

NDAC § 33.1-24-05-400 through NDAC § 33.1-24-05-419 contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight.

This facility has no permitted units subject to Sections NDAC § 33.1-24-05-400 through NDAC § 33.1-24-05-419.

VI.C. Air Emission Standards for Equipment Leaks

VI.C.1. Leaks from Specific Equipment

NDAC § 33.1-24-05-420 through NDAC § 33.1-24-05-449 contains emissions standards for leaks from specific equipment (for example pumps, valves, and/or compressors) that contain or contact hazardous waste that have an organic concentration of at least ten (1) percent by weight.

VI.C.2. Inspection of Equipment for Air Emissions

Permit Module VI.C.1. applies to various units, equipment and components associated with waste management units at the Permittee's facility as listed in Exhibit D2-8a of the approved permit application. The Permittee shall identify, inspect and monitor all units, equipment and components associated with waste management units as required by NDAC § 33.1-24-05-420 through NDAC § 33.1-24-05-449.

VI.C.3. Air Emission Documentation

The Permittee shall maintain, accessible at the facility, for a period of not less than three (3) years; all records necessary for demonstrating compliance for equipment subject to NDAC § 33.1-24-05-420 through NDAC § 33.1-24-05-449 in accordance with the record keeping requirements of the NDAC § 33.1-24-05-434.

VI.D. Air Emission Standards for Tanks, Surface Impoundments and Containers

VI.D.1. Applicability of Air Emission Standards

NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474 applies to hazardous waste treatment, storage, and disposal facilities, including certain hazardous waste generators accumulating waste on-site in tanks and containers. NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474 require controls to be used for tanks, surface impoundments, containers and miscellaneous units which contact hazardous waste containing an average volatile organic concentration greater than 500 PPMW at the point of origination determined by the procedures outlined in NDAC § 33.1-24-05-450, except as specifically exempted under NDAC § 33.1-24-05-450 and NDAC § 33.1-24-05-453.

VI.D.2. Subject Units

NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474 applies to the permitted hazardous waste storage tank identified in Permit Module IV.A. and identified in Exhibit D2-4 and D2-8 of the approved permit application. The required control equipment has been installed and is operational.

VI.D.3. Record Keeping

The Permittee shall maintain, accessible at the facility, for a period of not less than three (3) years, all records necessary for demonstrating compliance for hazardous waste management units subject to NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474 in accordance with the record keeping requirements of NDAC § 33.1-24-05-459.

VI.E. Emission Control Technology

The Permittee shall install and maintain all regulated units and associated emission technology in accordance with the detailed plans, schedules, information, and reports as contained in the Safety Kleen Systems Inc., Part B Permit Application, submitted March 31, 2023.

VI.F. General Standards

The Permittee shall comply with the applicable requirements of NDAC § 33.1-24-05-400 through NDAC § 33.1-24-05-474.

VI.G. Exemptions from Air Emission Standards.

This facility claims no exemption(s) under NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474.

VI.H. Notification of a New Unit

The Permittee shall submit a request for a permit modification as required by NDAC § 33.1-24-06-14 and provide information prior to:

- a. Installing a unit subject to NDAC § 33.1-24-05-400 through NDAC § 33.1-24-05-419;
- b. Introducing volatile organic waste streams into existing piping and/or equipment that subjects existing equipment to NDAC § 33.1-24-05-420 through NDAC § 33.1-24-05-449;
- c. Installing additional equipment subject to NDAC § 33.1-24-05-420 through NDAC § 33.1-24-05-449;
- d. Installing tanks(s) subject to NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474;
- e. Modifying an existing process, waste handling or tanks or containers such that the unit(s) will become subject to NDAC § 33.1-24-05-450 through NDAC § 33.1-24-05-474.

[End of Module VI]

MODULE VII: WASTE MINIMIZATION

VII.A. Annual Waste Minimization Certification

Pursuant to Section NDAC § 33.1-24-05-40(2)(i) and Section 3005(h) of RCRA, 42 U.S.C. 6925(h), the Permittee must certify, in writing, no less than annually, that:

- a. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste to the degree determined to be economically practicable; and
- b. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment;
- c. The Permittee shall maintain copies of this certification in the Facility operating record as required by NDAC § 33.1-24-05-40;

VII.B. Waste Minimization Certification Program

The Waste Minimization Program shall include the following elements:

VII.B.1. Top Management Support

A dated and signed policy describing management support for waste minimization and for implementation of a waste minimization plan. The policy must also include a description of how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, fiscal planning, production operations and maintenance.

VII.B.2. Characterization of Waste Generation

Identification of types and amounts of hazardous waste generated annually with sources of hazardous waste identified. The hazardous waste codes shall be indicated for those wastes which are hazardous.

VII.B.3. Ongoing Waste Minimization Efforts

A copy of the Facility's ongoing waste minimization program will be submitted annually.

VII.B.4. Cost Allocation System

Identification of waste management costs for the specific wastes listed in the waste minimization plan which includes recycling, treatment, disposal, and transportation costs. The costs associated with the waste management administration will be estimated and included to the extent feasible.

VII.B.5. Technology Transfer

Description of efforts to seek and exchange technical information on waste minimization from other parts of the Facility, other government facilities, technical assistance program, and professional consultants.

VII.B.6. Program Evaluation

Analysis and quantification of the results of the source reduction and recycling techniques which are implemented. A comparison shall be made to the waste minimization plan;

The waste minimization plan will be modified annually, if necessary, to account for process changes affecting waste generation (deletions, additions, new types of waste, etc.);

List impediments to waste minimization at the Facility (e.g. cost prohibitive, technical limitations, etc.).

VII.B.7. Pollution Prevention Act of 1990

The Permittee shall make all reasonable efforts to meet the goals of this Act.

[End of Module VII]

MODULE VIII: SCHEDULE OF COMPLIANCE

Permit Section	Schedule of Compliance	Due Date
I.D.2.	Duty to Reapply	180 days prior to expiration date of existing permit
I.D.10.a.	Planned Changes	As soon as possible prior to action
I.D.10.b.	Anticipated Noncompliance	Advanced notice of any planned change
I.D.13	Compliance Schedules	No later than fourteen (14) days following each schedule date
I.D.14	Twenty-four Hour Reporting	Orally-within 24 hours Written Submission-within 5 days
I.D.15.	Notice of Other Noncompliance	Orally-within 24 hours Written Submission-within 5 days
I.D.16	Manifest Discrepancy Reports	If unresolved, written notification within fifteen (15) days
I.D.17.	Unmanifested Waste Report	Within fifteen (15) days of receipt of unmanifested waste
I.D.18.	Biennial Report	Due March first (1) of every even-numbered year for previous calendar year's activity
I.D.19.	Other Information	Submit promptly to the NDDEQ
II.D.	Waste Analysis-Verification of each waste stream annually	Due October 31, annually for all waste streams
II.J.3.	Amendments to the Contingency Plan	Written amendments sent to the Department for review and approval, before amendments are implemented
II.M.3.	Notification of Closure	At least forty-five (45) calendar days prior to expected closure date
II.N.	Cost Estimate for Facility Closure	Sixty (60) days prior to the anniversary date of permit
II.O.	Financial Assurance/Annual Inflation Increase	Within fifteen (15) days of July 31 st
IV.H.2.	Releases to the Environment from storage tank	Within twenty-four (24) hours of detection
V.B.1.	Notification of Newly Identified SWMUs	Within fifteen (15) days of discovery
VII.A.	Annual Waste Minimization Certification	By March 31 st for the previous year



Part B Permit Application

Safety-Kleen Systems, Inc.
1537 First Ave South
Fargo, North Dakota 58103

NDD000716738

Prepared by Safety-Kleen Systems, Inc.

Table of Contents

Section	Page
A Part A General Information Requirements	1
B Facility Information	3
C Waste Characteristics	10
D-1 Process Information – Containers	24
D-2 Process Information – Tanks	28
E Groundwater Monitoring	35
F Procedures to Prevent Hazards	36
G Contingency Plan	50
H Personnel Training	55
I Closure Plan and Financial Requirements	56
J Solid Waste Management Units	67
K Other Federal Laws	68
L Part B Certification	69
M Subpart AA Process Vents	70
N Subpart BB Equipment Leaks	71
O Subpart CC Air Emission Standards	74
P Manifest, Recordkeeping and Reporting Requirements	81

EXHIBITS

Exhibit A-1	Part A Application
Exhibit A-2	Facility Site Plan
Exhibit B-1	Topographic Map Showing 1,000 Ft. Radius
Exhibit B-2	Topographic Map Showing 1 Mile Radius
Exhibit B-3	Flood Plain Map (FEMA/FIRM)
Exhibit B-4	U.S. Fish & Wildlife – Wetlands Map
Exhibit B-5	U.S. Fish & Wildlife – Critical Habitats Map
Exhibit B-6	City of Fargo Zoning Map
Exhibit B-7	Wind Rose Plot
Exhibit B-8	Site Traffic Patterns
Exhibit C-1	Statistical Model (Gibbons)
Exhibit C-2	California Annual Recharacterization Sampling Analysis
Exhibit C-3	Sample Testing Protocol
Exhibit C-4	Sampling Procedures
Exhibit C-5	Final Waste Code Assignments (2023)
Exhibit D1-1	Warehouse Container Storage Area Plan Details
Exhibit D1-2	Reserved
Exhibit D1-3	Example Pallet Layout for Container Storage Area
Exhibit D1-4	Container Storage Area Containment Calculations
Exhibit D1-5	Example Container Process Flow at Facility
Exhibit D1-6	Example Solvent Use & Regeneration Loop
Exhibit D2-1	Return & Fill Containment Calculations
Exhibit D2-2	Return & Fill Plan and Details
Exhibit D2-3	Drum Washer Isometric
Exhibit D2-4	12,000 Gallon Storage Tank Diagram
Exhibit D2-5	Moorman Bros. Tank Gauge Detail

Exhibit D2-6	Used Solvent Tank High Level Alarm System Diagram
Exhibit D2-7	Tank Farm and Return & Fill Piping Plan
Exhibit D2-8	Used Solvent Piping Schematic
Exhibit D2-9	Tank Farm Plan and Sections
Exhibit D2-10	Tank Farm Secondary Containment Calculations
Exhibit F-1	Example Weekly Safety Equipment Inspection
Exhibit F-2	Reserved
Exhibit F-3	Example Tank System Inspection
Exhibit F-4	Reserved
Exhibit F-5	Example Container Storage Area Inspection
Exhibit F-6	Reserved
Exhibit F-7	List of Emergency Equipment
Exhibit F-8	Location Map of Emergency Equipment
Exhibit F-9	Inspection Schedule
Exhibit G-1	Contingency Plan
Exhibit G-2	Emergency Information Sheet
Exhibit G-3	Safety-Kleen Product Safety Data Sheets
Exhibit G-4	Example Employee Functions During an Emergency
Exhibit G-5	Site Evacuation Plan
Exhibit G-6	Quick Reference Guide
Exhibit H-1	Training Plan
Exhibit H-2	Example Job Descriptions
Exhibit H-3	Training Plan Outline
Exhibit I-1	Closure Cost Estimate
Exhibit I-2	Closure Schedule
Exhibit I-3	Closure Insurance Certificate
Exhibit I-4	Hazardous Waste Facility Certificate of Liability Insurance
Exhibit N-1	Heavy Liquid Determination

Terminology Reference List

The following terms are used interchangeably in this document

- Safety-Kleen / Safety-Kleen Systems, Inc. SK / S-K / SKS
- Branch / Service Center / Facility
- Branch General Manager / Service Center Manager / Facility Manager / Branch Manager
- Return and Fill / Return & Fill / R & F / Drum Washer / Wet Dumpster / Vat
- AR / Annual Waste Recharacterization Program

List of Acronyms

ACGIH	American Conference of Governmental and Industrial Hygienists
AR	Safety-Kleen's Annual Waste Recharacterization Program
AST	Aboveground Storage Tank
BGM	Safety-Kleen Branch General Manager/Service Center Manager/Facility Manager
BS&W	Bottom Sediment and Water
CSA	Container Storage Area
CFR	Code of Federal Regulations
COC	Chain of Custody
COLIWASA	Composite Liquid Waste Sampler
COM	Customer Owned Machine
DC	Dry Cleaner
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Federal Flood Insurance Rate Map
Gal./G1.	Gallon
GPM	Gallons per Minute (pump rate of fire suppression system)
GVW	Gross Vehicle Weight
HOC	Halogenated Organic Compound
HWMU	Hazardous Waste Management Unit
IC	Safety-Kleen Immersion Cleaner Solvent
LDR	Land Disposal Restriction
MSS	Market Sales Specialist (Safety-Kleen branch employee)
NAICS	North American Industry Classification System
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PERC/perc	Perchloroethylene/Tetrachloroethylene
PPE	Personal Protective Equipment
PSI	Pounds per Square Inch
R & F/RF	Safety-Kleen's Return and Fill Dock
RCRA	Resource Conservation and Recovery Act
SDS	Safety Data Sheet (formerly Material Safety Data Sheet)
S-K/ SK/SKS	Safety-Kleen Systems, Inc.
SSR	Sales/Service Representative (Safety-Kleen branch employee)
SVOC	Semi-Volatile Organic Compounds
TCLP	Toxic Characteristic Leaching Procedure
TSDF	Treatment Storage and Disposal Facility
UHCs	Underlying Hazardous Constituents
U.S. DOT/DOT	United States Department of Transportation
VOC	Volatile Organic Compound
VSQG	Very Small Quantity Generator
WAP	Waste Analysis Plan / Waste Characteristics

Section A

Part A General Information Requirements

A-1 270.13(a)-(m) *Description of activities conducted which require facility to obtain a permit under RCRA, and brief description of the nature of the business*

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 customers. Safety-Kleen is also a leading provider of parts washer solvents, used oil collection, 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 Fargo Service Center typically operates Monday through Friday from 7:00 AM to approximately 5:00 PM. The Service Center Manager (Branch Manager) has the ultimate responsibility of the facility's operations. In the event of his/her absence, a qualified designate will assume the responsibility.

This facility is an accumulation point for many used materials generated by Safety-Kleen customers. Wastes are ultimately transported to a Safety-Kleen recycling facility, an authorized disposal site, or a contract reclaimer for processing. The facility is a small and simple warehouse facility regarding its physical and operational needs. The facility is sited on 0.7 acres, and has the following structures:

- a. One building (approximately 5,600 square foot) containing offices, product/inventory storage areas, the permitted Container Storage Area (CSA), and the solvent Return & Fill (R & F) area.
- b. A tank farm with three 12,000 gallon aboveground storage tanks (one of which is used for hazardous waste) for the storage of used parts washer solvent and product parts washer solvent. A tank may also be used for storage of other product or used oil storage.
- c. The facility also leases a portion of a building that is contiguous to the facility parking lot / drive way. This property may be used for product storage, transfer wastes, or vehicle parking.
- d. Two metal storage shelters used mainly for the storage of 10-day transfer wastes, but may also store various products.

A-2, A-3, A-4, A-5 **270.13(b)-(g)** **Name, Mailing Address, Location of Facility**

Facility Address: 1537 First Avenue South
Fargo, ND 58103

Facility Telephone Number: 701/237-9070

US EPA Identification Number: NDD 000 716 738

Geographic Location: 46° 52' 28" N
96° 48' 20" W

Facility Owner/Operator:	<u>Operator:</u>	<u>Owner:</u>
	Safety-Kleen Systems, Inc. 42 Longwater Dr Norwell, MA 02061 781/792-5000	Albrecht Properties 757 42 nd Avenue West West Fargo, ND 58078 218/790-222

Date Operations Began: July 15, 1978

NAICS Codes: 562112 (Primary), 484220, 484230, 532490

The facility is not located on Indian lands.

This facility is not a new facility. This is a renewal application.

The Part A Application is included as Exhibit A-1.

A-6 **270.13(h)** **Requirements for Existing Facilities**

Photographs of the facility are included in Exhibit A-1. A scale drawing is included as Exhibit A-2. There are no planned future treatment, storage, and disposal areas.

A-6, A-7 **270.13(i)(j)** **Description of Processes to be Used for Treating, Storing, and Disposing of Hazardous Waste; Estimate on Quantity to be Stored**

The facility has 2 storage areas: One S02 (Used Solvent Tank) and one S01 (Container Storage Area – CSA), as described in the table following.

Section B

Facility Description

B-1 270.14(b)(1) General Description

This facility is an accumulation point for many used materials generated by Safety-Kleen customers. Wastes are ultimately transported to a Safety-Kleen recycling facility or a contract reclaimer for processing. There is no onsite hazardous waste processing or disposal. There are no land disposal units, injection or withdrawal wells, surface impoundments, or waste piles at the facility.

The Fargo Service Center began operations as a storage facility in 1978. The Service Center is located in the City of Fargo in Cass County. This area is zoned for limited industrial use. To the best of Safety-Kleen's knowledge, there are no easements or title, deed, or usage restrictions that may be in conflict with the operations at this site.

Cass County covers approximately 1,768 square miles and includes the Fargo metropolitan area. The County has a population of approximately 186,500 (2021). Fargo covers 49 square miles and is the County seat. The City of Fargo has a population of approximately 126,700(2021).

Because of its location in the Great Plains and its distance from both mountains and oceans, Fargo has a humid continental climate. The city features winters among the coldest in the continental United States, with lows falling to or below 0 °F (-17.8 °C) 43 nights per year, and sometimes falling to -20 °F (-28.9 °C). Snowfall averages 52 inches (132 cm) per season. Spring and autumn are short and highly variable seasons. Summers have frequent thunderstorms, and highs reach 90 °F (32 °C) on an average of 12.7 days each year. Annual precipitation of 22.7 inches (577 mm) is concentrated in the warmer months. Extreme temperatures have ranged from -48 °F (-44 °C) on January 8, 1887 to 114 °F (46 °C) on July 6, 1936.

Cass County is situated in the Central Lowland Province, with the eastern three-fourths in the Red River Valley and the western one-fourth in the Daft Prairie Province.

The Red River Valley is quite flat with greater relief occurring on the escarpment of the Sheyenne River delta, the beaches of glacial Lake Agassiz, and the Maple River delta. Relief on the Sheyenne River delta generally is less than 5 feet per mile, whereas the on the Maple River delta it ranges from 5 to 20 feet. The land surface in the Drift Prairie region ranges from nearly flat to strongly rolling. Relief is generally 10 to 20 feet per mile, but some areas can be as much as 40 feet.

The major waterway draining Cass County is the Red River to the north, which flows northward along the eastern boarder of the county. Both the Sheyenne and Wild Rice Rivers enter the county at its southern border where they flow northeastward and empty into the Red River to the north and south of Fargo, respectively. Drainage in the western and northern portions of the county occurs via the Maple, Rush, and Elm Rivers and their tributaries.

Surficial material in the Fargo area is primarily clay and silt, with thin and flat undulating bedding. The water table is in this primarily uniform material, which is as much as 100 feet thick and can be found within a few feet of the surface. Also found in this area are strips of clay and silt over sand. The sand strips, commonly a little over ¼ mile wide, are buried river beds overlain by 5 to 20 feet of silt and clay characteristic of the area.

The soils at the Service Center are classified as Fargo silty clay. The Fargo series is described as level, deep, poorly drained soils, formed in lacustrine sediment and found adjacent to streams on glacial lake plains. These slowly permeable solids have a high water capacity, runoff is very slow and the soil is occasionally flooded. A seasonal high water table fluctuates between depths of 0 and 3 feet.

Beneath the surficial material is glacial till, primarily sand and gravel of the Quaternary Period. The Fargo aquifer, composed of sand and gravel, is found at about 130 feet below the surface. It is between 0 and 160 feet in thickness. The water from this aquifer is hard and contains high levels of sodium bicarbonate. Dissolved solids can be as high as 1,130 ppm; iron concentration is about 0.4 ppm. Although this aquifer is not currently a major source, it is believed that yields of 1,000 gallons per minute are achievable. However, considerable drawdown would occur.

Groundwater is also available from the Dakota Sandstone. Depth to the Dakota Aquifer in this region is about 300 feet. The available quantities can be adequate for municipal and industrial uses. The water, however, can be very hard and high dissolved solids and mineral contents make it unsuitable for most uses without desalination or other forms of treatment.

The Fargo Service Center is served by the City of Fargo public utilities; a 12 inch sanitary sewer running eastward, a 36 inch sanitary sewer running westward and a 6 inch water main running westward, all under First Avenue South. The City of Fargo waterworks is located approximately 7,000 feet southeast of the facility on the Red River (the City's water source). The sewage facility is also on the Red River and is approximately 3.5 miles north-northeast of Safety-Kleen's Service Center.

270.14(b)(8)(i) Description of Procedures, Structures or Equipment Used to Prevent Hazards in Unloading Operations.

The Fargo Service Center was designed to facilitate the handling and storage of the wastes resulting from the services offered by Safety-Kleen. Proper handling of hazardous waste is ensured through proper training and use of proper equipment. Employees are trained on hazardous waste procedures during their initial training and then annually. When practicable, containers will be moved with a forklift, pallet jack, or drum dolly.

It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Safety-Kleen will store and transport any incompatible wastes in accordance with 49 CFR 177.848 (segregation of hazardous materials).

270.14(b)(8)(ii) Description of Procedures, Structures, or Equipment Used to Prevent Runoff From Hazardous Waste Handling Areas or to Prevent Flooding

Containers of waste are off-loaded from route trucks into storage areas. The containers are stored in an enclosed warehouse and are not subject to run-on or runoff. Tank storage is in a diked tank farm. The diking prevents run-on and runoff. The containment system is constructed to contain the anticipated collection from a 24-Hour, 25 year storm. The containment is designed and operated to remove accumulated liquids through a sump located in the containment dike. An automatic pump is not present in the tank farm. Accumulated liquids will be removed by use of an intrinsically-safe pump, which must be placed into the sump, or via a vacuum truck.

Drums of used mineral spirits solvent are emptied in the Return and Fill which is contained so that any material splashed, dripped, or spilled will not runoff.

270.14(b)(8)(iii) Description of Procedures, Structures, or Equipment Used to Prevent Contamination of Water Supplies

The Fargo Service Center is operated in a manner that is protective of water supplies. Containers of waste are stored in enclosed storage areas, and the transfer of parts washer solvent to the bulk tank is conducted over secondary containment. Bulk storage tanks are located within a diked tank farm that has adequate containment capacity. The facility is maintained to prevent waste materials from migrating to the environment.

270.14(b)(8)(iv) Description of Procedures, Structures, or Equipment Used to Mitigate Effects of Equipment Failure of Power Outages.

A power failure would not result in a spill. Should a power failure occur, all activities requiring electricity will necessarily cease. The transfer pump used to pump the used solvent into the storage tank is electric and will not operate during a power outage. Since the tank is not pressurized, the lines will be in a stable state until the power is restored and the pump is restarted. The high level alarm on the tank requires electricity to operate. However, the only way used solvent can be transferred into the storage tank is via the transfer pump that will not be operable during a power outage. The transfer pumps used to pump clean solvent into the storage tank, or remove used solvent from the tank are located on the transport vehicles so a power failure will not have any effect on removal of material from the tank.

270.14(b)(8)(v) Description of Procedures, Structures, or Equipment Used to Prevent Undue Exposure of Personnel.

All Safety-Kleen employees receive extensive training on recognizing hazards in the workplace and how to avoid or best manage them. Safety-Kleen's Health and Safety Department completes hazard assessments for all branch activities and issues a Personal Protective Equipment (PPE) Matrix that all employees are required to follow. An example PPE Matrix is included in Exhibit C-4. This matrix is periodically updated by the corporate health and safety department. There is an emergency eyewash/shower located in the warehouse. There are standard showers located in the office area that can be used to decontaminate in the event of accidental contact with contaminants and end-of-day decontamination.

270.14(b)(8)(vi) Description of Procedures, Structures, or Equipment Used to Prevent Releases to the Atmosphere.

In order to prevent releases from the hazardous waste storage tank, the tank is equipped with a high level alarm that is activated by a float. If the level in the tank is 95% of capacity, the float activates a switch which activates both visual and audible alarms. The transfer pump is also disabled so that the tank will not overflow. Reference Sections N and O for additional information.

Tanks and piping are visually inspected each operating day for signs of deterioration. With the exception of the parts washer solvent drums that are emptied into bulk storage, containers of waste are not opened while onsite. The containers are inspected each operating day (when the facility is in operation) for signs of deterioration. The drum washer is inspected each operating day for signs of deterioration.

B-2 270.14(b)(19)(i) Topographic Map

A topographic map indicating 1,000' radius around the facility is included as Exhibit B-1. A topographic map indicating 1 mile radius around the facility is included as Exhibit B-2. The maps show scale and date.

270.14(b)(19)(ii) The 100-Year Flood Plain Area

According to the Fargo Flood Insurance Rate Map, revised January 2015, the Safety-Kleen facility is within a flood plain area of Zone X. Zone X is the flood insurance rate zone that corresponds to areas outside of the 500-year floodplain, areas within the 500-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees.

The waste storage areas at the Service Center are protected from flood waters. The dike surrounding the 12,000 gallon storage tanks is 4'4" high and 8" wide. It is designed and constructed to withstand possible resultant forces from flood waters. Finally, should the threat of high water arise, containers storing wastes can be safely moved to higher ground to prevent contact with flood waters.

A Federal Flood Insurance Program Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA) is provided as Exhibit B-3.

B-2a 270.14(b)(19)(iii) Surface Waters

There are no surface waters or intermittent streams located within the facility. Refer to topographic maps, Exhibits B-1 and B-2.

B-2a 270.14(b)(19)(iv) Surrounding Land Use

The Fargo Service Center is located within a limited industrial zoning district. This area is zoned for industrial use and to the best of Safety-Kleen's knowledge, no easements or title, deed or usage restrictions exist that may be in conflict with operations at this site. There are no wetlands (Exhibit B-4) or critical habitats (Exhibit B-5) in the area as indicated by the U.S. Fish and Wildlife Service. The City of Fargo Land Use/Zoning map is included as Exhibit B-6.

B-2a 270.14(b)(19)(v),(vi) Wind Rose

Exhibit B-7 is a wind rose plot for the Fargo Airport located approximately 4 miles north of the site.

B-2a 270.14(b)(19)(vii) Legal Boundaries

Legal boundaries of the facility are shown on the topographic map, Exhibit B-1.

B-2a 270.14(b)(19)(viii) Access Control

The operational areas of the facility are secured by a passive chain link fence topped with barbed wire. There is 1 gate to facilitate vehicle traffic into and out of the facility. The gate is locked during non-operational times. Access control (fence and gate) is shown on Exhibit A-2 (Facility Drawing).

B-2a 270.14(b)(19)(ix) Injection and Withdrawal Wells (On Site and Off Site)

There are no injection or withdrawal wells on- or off-site.

B-2a 270.14(b)(19)(x) Buildings and Other Structures

The facility consists of the following structures:

- a. One building (approximately 5,600 square foot) containing offices, product/inventory storage areas, the permitted Container Storage Area (CSA), and the solvent Return & Fill (R & F) area.
- b. A tank farm with three 12,000 gallon aboveground storage tanks (one of which is used for hazardous waste) for the storage of used parts washer solvent and product parts washer solvent. A tank may also be used for storage of other product or used oil storage.
- c. The facility also leases a portion of a building that is contiguous to the facility parking lot / drive way. This property may be used for product storage, transfer wastes, or vehicle parking.
- d. Two metal storage shelters used mainly for the storage of 10-day transfer wastes, but may also store various products.

B-2a 270.14(b)(19)(xi) Drainage and Flood Control Barriers

The facility is located in a 100-year flood plain and there are no barriers for drainage or flood control. Reference Section B-2 (above) for information.

B-2a 270.14(b)(19)(xii) Location of Treatment, Disposal Units and Decontamination Areas

The facility has no treatment, disposal units and decontamination areas.

B-2b **270.14(c)(2)-(4)** **Additional information on the Topographical Map for Land Disposal Facilities**

The facility does not land dispose of any wastes. Therefore, these sections do not apply.

B-3 **270.14(b)(11)** **Facility Location Information**

This section applies to proposed or new facility construction. Therefore, these sections do not apply.

B-3a **270.14(b)(11)(i)(ii)** **Seismic Requirements**
264.18(a)

This section applies to proposed or new facility construction; nor is the facility in an area of seismic activity. Therefore, these sections do not apply.

B-3b **270.14(b)(11)(iii)(iv)(v)** **Flood Plain Requirements**
B-3b(1)- **264.18(b)(ii)**
(a)

Refer to Section B-2.

B-4 **270.14(b)(10)** **Traffic Patterns**

The entrance to the facility is on First Avenue, which is the major access road to the facility. The trucks that travel the daily routes between the facility and Safety-Kleen customers use the two-lane approach driveway.

The Service Center currently has 3 box trucks and 1 bulk tank truck based at the facility. The number of route vehicles may vary due to business needs. Traffic generated by Safety-Kleen's operations does not have a major impact on the traffic volume of adjacent and nearby roadways, or the routes the trucks travel.

The facility's hazardous waste collection vehicles that deliver wastes daily to the Service Center are completely enclosed cargo trucks. The bulk trucks are used to collect used oils and non-hazardous industrial and commercial wastes.

Waste containers will be transported from the Service Center in completely enclosed box trailers. The facility is serviced by 18-wheel, 5-axle tractor-trailers with a maximum load of 80,000 pounds, with 13,000 pounds per axle attributed to the steering axle (axle 1); approximately 34,000 pounds maximum gross weight between axles 2 and 3; and 34,000 pounds maximum gross weight between axles 3 and 4. The tractor/trailer is generally dispatched to the Service Center one time per week.

Bulk tractor/tankers are dispatched from a Recycle Center approximately every 30 working days to deliver the clean solvent and pick up used bulked solvent. These transfer activities are conducted at the aboveground tank area. These trucks have a maximum GVW of 80,000 pounds. The size of the vehicles used to transport waste to and from the facility may vary from what is described; however, the cargo-carrying portion of the vehicle will always be a completely enclosed box-type cargo truck or bulk tanker.

Due to the low-volume of vehicles entering and leaving the facility, there are no onsite traffic control signs or signals; nor are stacking lanes necessary on the access streets. Site traffic patterns are included as Exhibit B-8. All vehicle traffic areas of the facility are paved with asphalt or concrete.

Section C

Waste Characteristics

Waste analysis requirements mandate that before an owner or operator transfers, treats, stores, or disposes of any hazardous waste, detailed chemical analysis of a representative sample of waste must be obtained. This analysis, at a minimum, must contain all of the information that must be known to transfer, treat, store, or dispose of the waste. The analysis may include data developed under 40 CFR 261 of the regulations and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes. The Waste Analysis Plan for Safety-Kleen’s Fargo Service Center has been developed to meet the requirements described above and as found in 40 CFR 270.14(b) and 264.13.

FACILITY TYPE: Storage in an aboveground tank (S02) and in containers (S01)

Table C

Permitted Waste Streams and Applicable Waste Code Table

WASTE DESCRIPTION	EPA WASTE CODES ⁴	DESIGN CAPACITY	ESTIMATED ANNUAL AMOUNT ²	STORAGE AREA
Used Parts Washer Solvent 150 Bulked	D039	12,000 ¹	46,000	Bulk Storage Tank (S02)
Used Parts Washer Solvent Tank Bottom Sediment	D001, D018, D039, D040	Included with above or below totals	1,000	Bulk Storage Tank (S02) Container Storage Area (S01)
Drum Washer / Dumpster Sediment	D001, D018, D039, D040	2,400 ³	1,500	Container Storage Area (S01)
Used Immersion Cleaner	D039, D040	Included Above	250	Container Storage Area (S01)
Dry Cleaning Waste (Perchloroethylene, Trichlorotrifluoroethane, or Petroleum Based) May be filter cartridges, still bottom residue, and separator water	D017, D039, D040, F002	Included Above	1,000	Container Storage Area (S01)
Aqueous Parts Cleaner Solvent	D039	Included Above	12,000	Bulk Storage Tank (S02) Container Storage Area (S01)

¹ The design capacity in gallons (Note: The facility restricts the amount stored in the tank to 95% capacity; approximately 11,400 gallons).

² The estimated annual amount in gallons

³ The total amount of containerized waste stored in the CSA will not exceed 2,400 gallons

⁴ In addition to the code(s) listed above, these codes may be applicable: 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

C-1 **270.14(b)(2)** **Chemical and Physical Analysis**
264.13(a)

Used materials generated by Safety-Kleen customers are the primary feedstock for the generation of Safety-Kleen recycled solvent products. As a result, quality control of the used materials is necessary to monitor product quality and regulatory consistency. The Fargo facility collects used materials from numerous customers, many of whom are Very Small and Small Quantity Generators (VSQGs and SQGs).

Most of the materials collected at the Service Center are managed in a closed-loop system and are collected from companies with a single process (i.e., washing oily parts, dry cleaning, or painting).

C-1.1 **Descriptions of Permitted Waste Streams**
C-1.1(a) **Wastes Resulting from Solvent-Based Parts Washer Service**

Used mineral spirits and aqueous solvent from parts washer services at Safety-Kleen customers is accumulated in a 12,000 gallon aboveground storage tank via the Return and Fill station (R & F). Containers of used solvent are poured into a drum washer unit at the R & F which in turn empties into the tank. The appropriate waste codes will be based on Safety-Kleen's Annual Recharacterization (AR or Recharacterization) study. This waste handling method results in three types of parts washer solvent-based waste:

1. Used Parts Washer Solvent which may include any of Safety-Kleen's mineral spirits products, is removed from the tank by a tanker approximately every 30 working days. For appropriate waste codes, see Table C above. The Fargo facility will ship used solvent to a Safety-Kleen Recycle Center or other facility appropriately permitted to accept the waste for reclamation. The used solvent removed from the bulk tank is a homogeneous material as no other waste streams are placed in the bulk tank.
2. Solvent Tank Bottoms includes sediment and other heavy material that has accumulated at bottom of the tank. Periodically it is necessary to remove this material when the accumulation impacts or may impact the ability to pump liquid solvent from the bottom outlet of the tank. The frequency of removal of the tank bottoms varies, dependent on the amount of suspended solids in the used solvent that settle during tank storage. Bottoms are typically removed by suction/vacuum truck and transported for offsite disposal. For appropriate waste codes, see Table C above.
3. Drum Washer (Dumpster) Sediment accumulates in the bottom of the drum washer/dumpster unit in the R & F station. This sediment is manually removed with a scoop and placed into a waste container and managed as hazardous waste. This sediment is typically removed each operating day to ensure operations are not impaired by excessive accumulation. The chemical composition of this waste is analogous to that of the solvent tank bottoms. The facility ultimately ships this material to a Safety-Kleen Recycle Center or other properly permitted facility for disposal. For appropriate waste codes, see Table C above.

4. Immersion Cleaner (IC) is another type of parts washer solvent (monoethanolamine is a primary constituent). Containers of used IC are placed in a container storage area of the warehouse. The Immersion Cleaner remains in the container in which it was originally used until it is received the Recycle Center for disposal. For appropriate waste codes, see Table C above.

C-1.1(b)

Wastes Resulting from the Dry Cleaner Service

Safety-Kleen manages perchloroethylene-type of hazardous dry cleaner waste in the permitted areas. This waste can have three forms: bottoms, filters, and separator waters. These wastes are packaged on the customers' premises in containers meeting U.S. DOT specifications. When received at the facility, the containers are placed in Container Storage Area. Dry cleaning wastes remain in the containers received from the customer until it is received at the Recycle Center or other appropriately permitted facility.

The dry cleaning process may produce three waste streams.

1. Filter Cartridges are generated as waste when they can no longer effectively filter the solvent in the chamber. In addition to the filter materials of construction consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, lint, hair, and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight. Dry cleaner filters are given the same waste codes as the associated dry cleaner bottoms because both streams are derived from the same source. Designating the same codes for the filters as were used for the bottoms is a conservative approach. A representative filter sample is difficult to obtain because of the make-up of the filter (metal core) and obtaining the sample would involve dismantling of the filter and undue exposure to the dismantler
2. & 3. Still Bottom Residue and Separator Water are generated after filtration and distillation at the generator to remove the dissolved materials from the used solvent. The dissolved materials (still bottom residues) are in liquid form and consist primarily of solvent, oil, grease, hair, dirt, and water. In some cases, the dry cleaner will separate the water condensate from the still residue. Water condensate, generated during the distillation process, may contain dry cleaning solvent, oil, grease, and dirt as well. The dry cleaning separator water will be given the same waste codes as the associated bottoms with the omission of D007 because chromium is not expected to carry over into the separator water during the distillation process (i.e., the boiling point of chromium is much greater than the operating temperature of the distillation unit).

For appropriate waste codes see Table C above.

C-1.1(c) Wastes Resulting from Paint and Thinner Service

Paint wastes consist Safety-Kleen lacquer thinner and paint residues resulting from cleaning of paint guns by the generator. There are primarily three waste streams from this service: Paint Gun Cleaner, Clear Choice® Paint Gun Cleaner, and paint waste-other. Safety-Kleen thinners are used during the generation of the first two waste streams. The following is informational only as the wastes are managed as transfer waste through the facility.

1. Paint Gun Cleaner is a paint gun cleaning lacquer thinner containing a blend of solvents such as acetone, alcohols, ketones, toluene, xylene, and acetate compounds. These have primary waste codes of D001, F003 and F005. These are contaminated with lower levels of waste paint that the gun cleaning machine is removing from the paint sprayer during the cleaning operation. Safety-Kleen's core paint waste is typically recycled and fuel blended. This waste will be managed as transfer waste through the facility.
2. Clear Choice Paint Gun Cleaner: is acetone, so the F005 waste code does not apply to this waste stream. However, applicable waste codes are D001 and F003. The two Paint Gun Cleaner streams share the same AR data because the waste streams are similar due to the identical process generating the wastes. This waste will be managed as transfer waste through the facility.
3. Paint Waste Other consists of the same material as the Paint Gun Cleaner but has a higher level of paint solids as this comes from the dumping of left over paint from paint cups and guns when all the paint in a paint gun is not used. During the process creating this waste, typically smaller volumes of thinner are in the waste so these drums are fuel blended or incinerated rather than recycled for their solvent value. The primary waste codes are D001, F003 and F005. This waste will be managed as transfer waste through the facility.

The paint wastes described above are collected in containers meeting U.S. DOT specifications. The wastes are containerized by the generator at their place of business. The waste remains in the container until it is received the Recycle Center or other properly permitted facility for disposal. These containers are managed at the Service Center on a transfer basis in accordance with 40 CFR 263.12.

C-1a 270.15(b)(1) 264.172 Waste Compatibility With Containers

It is Safety-Kleen's standard operating procedure to use containers made of, or lined with, materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired.

Safety-Kleen manages a limited number of waste streams, most are liquid, and most originate from new products that are supplied to its customers in the original DOT approved drums. Safety-Kleen has evaluated the chemical composition of these products and wastes and has determined that the wastes are compatible with the containers in which they are stored.

Note: None of the permitted streams carry the D002 waste code for corrosivity. In most cases where a container is not available from a Safety-Kleen-supplied product, Safety-Kleen supplies the customer with a DOT approved drum for that waste type (i.e., when Safety-Kleen collects Dry Cleaning filters).

**C-1b 270.16(a), 264.190(a), Waste Compatibility With Tank System
264.191(b)(2), 264.192(a)(2)**

The only waste stored in the aboveground storage tank is used parts washer solvent (mineral spirits or aqueous). The amount of aqueous solvent that may be placed into the tank system is minimal (typically less than 100 gallons/year) and this would be added to the tank for minimizing offsite transportation costs. This material has been analyzed and found to be compatible with the steel tank in which it is stored.

C-1c Through C-1i Waste in Piles Wastes on Drip Pads

Safety-Kleen's Fargo facility does not have any of these processes on site. Therefore, these sections do not apply.

**C-2 270.14(b)(3) Waste Analysis Plan
264.13(b)-(c)**

Waste analysis at the Safety-Kleen Fargo Service Center is a three-step process that includes:

- Prescreening of customers
- Qualitative/visual analysis and
- Quantitative analysis (lab analysis)

Prescreening of Customers

Safety-Kleen performs a customer prescreening for all parts washer and immersion cleaner service customers. The other permitted waste streams (dry cleaning wastes and paint wastes) are generated from facilities where there is typically one process generating hazardous waste and the possibility of cross-contamination from other chemicals or wastes is minimal. These wastes remain in the container they were originally packaged until received at a Safety-Kleen Recycle Center or other properly permitted disposal facility. These waste containers remain closed from customer to final disposition.

Prior to leasing a parts cleaning machine or placing a Customer Owned Machine (COM) 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), operations are reviewed to ensure that the solvent is protected from the sources of contamination. In reviewing a customer's business, the Safety-Kleen Representative provides customers with written and verbal information on use of the equipment. 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

Qualitative/Visual Analysis

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 used solvent (parts washer and immersion cleaner) when the machines are serviced, noting the quantity, odor, and appearance of the material recovered as follows:

1. The quantity of used solvent in the drum – When the amount of parts cleaner solvent or immersion cleaner fluid is more than 10% greater than originally supplied, the waste generation process will be further evaluated to determine its acceptability.
2. 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 fluid in the container is noticed to be different from that of parts cleaner solvent or immersion cleaner, the waste generation process will be further evaluated to determine its acceptability.
3. The appearance of the liquid in the drum – The used parts cleaner solvents have a normally brown or black appearance. Certain contaminants containing dyes and color pigments (such as transmission fluid, soy-based printers’ ink, and water-based paints) may change the color of the used parts cleaner solvent to other colors. Used immersion cleaner should have a dark brown to almost black appearance. The immersion cleaner is a single-phase liquid. 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 be further evaluated to to determine its acceptability.

If the material passes the three qualitative/visual analyses shown above, the material is noted as having passed the qualitative analysis in our service document (typically a handheld computer printout).

At the Service Center, the Safety-Kleen Representative or Material Handler again observes the quantity, odor, and appearance prior to emptying the parts washer solvent into the drum washer unit. Drums with questionable contents are managed as described above.

In addition, receipt analysis is performed by the Safety-Kleen Recycle Centers on all inbound bulk solvent deliveries. Receipt analysis typically includes a screen for atypical flash point, polychlorinated biphenyls (PCBs), and halogenated organics.

Quantitative Analysis (Lab Analysis)

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 is evaluated annually through the Safety-Kleen Annual Recharacterization process (Quantitative Analysis).

Analytical data from the Recharacterization sampling is subjected to an EPA SW846 approved statistical model (see Exhibit C-1). The waste samples analyzed come from a variety of Safety-Kleen facilities across the country and is representative of the Fargo facility.

Samples included in the AR process are selected from random customers serviced by Safety-Kleen facilities. Randomness is overseen by the Safety-Kleen Technical Center, which manages the AR program, selecting the month that the samples will be taken. Generator services are typically scheduled months in advance and those clients whose waste happens to be on hand on the month selected by the Technical Center will be the wastes that will be sampled.

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 AR statistical evaluation each year via the Non-parametric Upper Confidence Interval Approach.

When subjecting AR sample data to the Non-parametric Upper Confidence Interval Approach, the last 3 years of analytical data for a given waste stream is used from samples pulled from across the country (in most cases). For example, statistically based waste codes assigned to a particular core waste stream in 2023 are based on samples analyzed in 2020, 2021, and 2022. Ideally 50 data points are used but at least 30 data points are required. Example, if 30 data points are not available from samples pulled in 2020/2021/2022, samples from 2019 will also be incorporated into the population.

In reviewing with Dr. Gibbons how the number of data points was derived he wrote in an email ...“This is a nonparametric upper confidence limit (see Gibbons, Bhaumik and Aryal, 2010 section 18.7) which is defined by an order statistic (i.e. a rank) of the data. There is nothing magical about 30 or 50, but 50 is good because the median is the average of the 25th and 26th highest values and the UCL is the 31st largest value, which provides a reasonably tight confidence limit (i.e. not an extreme value).”

Homogeneity of the streams was further confirmed in 2004 when Safety-Kleen conducted an Annual Recharacterization using California-only customer data. Safety-Kleen conducted a statistical comparison of the ‘California only’ Annual Recharacterization result with the results from the National AR (Exhibit C-2). 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 AR 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 2022 (for 2023 waste codes) were:

CUSTOMER GENERATED	SAFETY-KLEEN GENERATED
Immersion Cleaner	Bulk Solvent
Parts Washer Solvent Premium	Dumpster Sludge
Paint Gun Cleaner/Paint Wastes/Clear Choice	Tank Bottoms
Dry Cleaner Related Streams (Perchloroethylene and Naphtha, filters, bottoms and separator water)	
Aqueous Brake Cleaner	
Aqueous Parts Washer Solvent	

AR Sample Testing Protocol is located in Exhibit C-3. Procedures used for obtaining the samples is included in Exhibit C-4. Final AR (National) Waste Code Assignments for 2023 are included in Exhibit C-5.

All AR Samples are analyzed by a single lab, an independent NELAP accredited environmental laboratory.

Waste Determination for Subpart BB and CC Compliance

For purposes of waste determination, this facility utilizes knowledge of the wastes described in this section. The used solvent managed in the tank system is presumed to contain hazardous waste with an organic concentration of at least 10-percent by weight, so Subpart BB regulations apply. For those hazardous wastes that are managed on a transfer basis, the Subpart CC regulation does not apply. However, the owner/operator 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 most waste solvents managed in tanks and containers at this facility may display an average volatile organic concentration of greater than 500 ppm at the point of waste origination. Therefore, no exemption allowed in 40 CFR 264.13b(8) from Subpart CC regulations is requested and hazardous wastes managed in tanks and containers at this facility shall be managed in accordance with applicable Subpart CC standards.

C- 270.14(b)(3), Parameters and Rationale
2a 264.13(b)(1)

Safety-Kleen's permitted waste streams which are all received in containers are broken into three types:

- Used Parts Washer Solvent (Petroleum Naphtha/Mineral Spirits and Aqueous)
- Solvent Immersion Cleaner
- Dry Cleaner-Perchloroethylene

The product provided, or in the case of dry cleaner solvents that are purchased by the generator, makes up the majority of the waste (see SDSs in Exhibit G-3). As such the analytical testing includes the regulated constituents in these products and the regulated metals and volatile solvents that may come in contact with the products. This, combined with a known process that the waste streams are being derived from, form the basis for testing.

The purpose of the Recharacterization is 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 once it has consistently been designated as non-hazardous. A stream may also 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. Lastly, a set of analytes may be omitted if they are not expected or are 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.

C-2b **270.14(b)(3);** **Test Methods**
 264.13(b)(2)

Exhibit C-3 details the AR sample testing protocol.

C-2c **270.14(b)(3);** **Sampling Methods**
 264.13(b)(3)

AR Sampling Method Requirements are found in Exhibit C-4.

C-2d **270.14(b)(3);** **Frequency of Analysis**
 264.13(b)(4)

As described previously, a Qualitative/Visual analysis of the parts washer wastes managed at the Service Center is conducted for each waste pickup. Safety-Kleen's Recharacterization is conducted annually.

C-2e **270.14(b)(3);** **Additional Requirements for Wastes Generated Off-Site**
 264.13(b)(5)(c)

Safety-Kleen acknowledges that generators are required by regulations to make their own determination as to the waste codes associated with wastes they generate. No action is required by the generator if they agree to the waste codes from Safety-Kleen's AR. However, if a generator chooses to use knowledge of its process to identify which waste codes are attached to the waste, approval by Safety-Kleen's Central Waste Profiling group is required.

**C-2f 270.14(b)(3); *Additional Requirements for Ignitable, Reactive, or Incompatible*
 264.13(b)(6)(c); 264.17 *Wastes***

Waste received at the facility is analyzed according to the procedures described in the Waste Analysis Plan. All ignitable wastes terminated at the facility are compatible with each other and the containers in which they are stored. Therefore, additional analyses to evaluate compatibility are not necessary.

The permitted storage warehouse where ignitable waste is stored is designed for this material. All electric components in the Return and Fill area are intrinsically safe. Hot work permits are required for any work that may involve excess heat, sparks or open flames in these storage areas and are conducted only when ignitable materials are not present. No Smoking signs are posted in all areas where ignitable waste is stored and smoking is not allowed within the office, warehouse or fenced areas of the facility.

The only permitted waste opened at the facility is the used parts washer solvent waste, which is consolidated in the aboveground waste storage tank. No other waste streams are added to the tank.

**C-3 270.14(b)(3); 264.13; *Waste Analysis Requirements Pertaining to Land Disposal*
 Part 268 *Restrictions***

All of the permitted waste streams received and stored at the Service Center are treated or recycled at an approved Safety-Kleen Recycle Center, contract reclaimer, or other properly permitted facility. The drum washer sediment generated at the facility is containerized and shipped offsite for reclamation. The Service Center does not dispose of any hazardous wastes onsite and does not send any permitted wastes to land disposal facilities. Therefore, the Fargo Service Center is not required to certify that hazardous wastes that are restricted from land disposal are below treatment standards. The following sections discuss how Safety-Kleen determines appropriate Land Disposal Restriction (LDR) classification and treatment standards and how LDR notification requirements are met.

**C-3a 270.14(a); 264.13(a)(1); *Waste Analysis*
 268.1; 268.7; 268.9;
 268.32- 268.37; 268.41 -
 268.43**

Due to the nature of its business, Safety-Kleen receives wastes that are untreated and that are assumed to exceed the LDR treatment standards. For the Safety-Kleen parts washer solvent, immersion cleaner, dry cleaner wastes and paint wastes, the hazardous constituents are known. The rationale for the selection of LDR treatment standards are provided below.

C-3a(1) 270.14(a); 264.13(a)(1); Spent Solvent and Dioxin-Containing Waste
268.2(f)(1); 268.7; 268.30;
268.31

Safety-Kleen will manage F-solvent wastes. The spent dry cleaning perchloroethylene is F-Solvent non-wastewater waste with the following treatment standard: tetrachloroethylene (0.05 mg/L).

None of the permitted wastes Safety-Kleen handles contain dioxins.

C-3a(2) 270.14(a); 264.13(a)(1); California List Wastes
268.7; 268.32; 268.42(a)

California list wastes are a distinct category of RCRA hazardous wastes that are restricted under the land disposal restrictions (LDRs). These restrictions only apply to liquid wastes, with the exception of

Halogenated Organic Compounds (HOCs), which may be liquid or non-liquid. In Safety-Kleen's case, all of the permitted waste streams are liquid, with the possible exception of the Dry Cleaning Filters, which can be dry although they may have low levels of free liquids at times. In either case the California List Waste rules apply as the Perc Filters contain HOCs. The Safety-Kleen permitted waste streams do not contain PCBs over 50 ppm, free cyanides >1000 mg/l, nor do they have a pH of <2, so these categories do not apply.

Safety-Kleen permitted wastes are either recycled, fuel blended or incinerated. If any of the residues are landfilled the prohibition levels for the California listed metals and HOC's will apply. Should liquid residues be landfilled they will have less than the metal prohibition limits prior to land disposal, and liquids and non-liquids will have less 1000 mg/kg of HOCs.

C-3a(3) 270.14(a); 264.13(a)(1); Listed Wastes
268.7; 268.33 - 268.36;
268.41 -268.43

Safety-Kleen does not handle non-solvent F-listed, K-listed, or P-listed waste in its permitted areas. Any transfer waste having these codes will have the appropriate LDR accompany the manifest so the designated facility can treat the material appropriately.

C-3a(4) 270.14(a); 264.13(a)(1); Characteristic Wastes
268.7; 268.9; Part 268,
Appendix I, IX

Safety-Kleen may generate or store D001 wastes, including parts washer solvent. Since this waste contains high levels of organics, Safety-Kleen assumes that all D001 wastes will contain ≥ 10 percent total organic carbon (TOC). The technology-based standards for these non-wastewaters are "RORGS", (recovery of organics) or CMBST (high temperature organic destruction).

Safety-Kleen may also generate or store wastes that may be classified as D006, D007 (example: immersion cleaner, dry cleaner waste). The treatment standards for these wastes are 1.0 mg/L, and 5.0 mg/L respectively.

C-3a(10) 270.14(a); 268.3 Dilution and Aggregation of Wastes

Safety-Kleen's parts washer solvent is the only permitted waste consolidated at the site. All solvent is either recycled or destroyed offsite via combustion; so this section does not apply.

C-3b 270.14(a); 264.13; 264.73; 268.7; 268.9(d) Notification, Certification, and Recordkeeping Requirement

For all waste streams terminated at this facility, in accordance with the regulations listed above Safety-Kleen will provide to the Recycle Centers or authorized treatment or disposal facility, and require from its' regulated customers, notification/certification which provided the treatment standards for the wastes banned from landfills. These will be updated any time the waste should change or the waste is delivered to a new final permitted site. A copy of this notification/certification shall be available (via electronic storage) at the Fargo facility.

C-3b(1) 270.14(a); 264.13; 268.7(a) Notification, Certification, and Recordkeeping Requirement

The notice is required paperwork for all Safety-Kleen permitted waste types. The notices and certifications provided by regulated customers must be reviewed for correctness and be kept on file (electronically) at the Service Center for at least three years as part of the operating record.

C-3b(2) 270.14(a); 264.13; 268.7(b) Notification and Certification Requirements for Treatment Facilities

This facility is not a treatment facility. Therefore, this section does not apply.

C-3b(3) 270.14(a); 264.13; 268.7(b) Notification and Certification Requirements for Land Disposal Facilities

This facility is not a land disposal facility. Therefore, this section does not apply.

C-3b(4) 270.14(a); 264.13; 268.7(a)-(b)(6) Wastes Shipped to Subtitle C Facilities (RCRA-Authorized Landfill)

None of Safety-Kleen Fargo's permitted wastes are shipped to a Subtitle C facility. Therefore, this section does not apply.

C-3b(5) 270.14(a); 264.13; Wastes Shipped to Subtitle D Facilities (Municipal Landfill)
268.7(d); 289.9(d)

None of Safety-Kleen Fargo's permitted wastes are shipped to a Subtitle D facility. Therefore, this section does not apply.

C-3b(5) 270.14(a); 264.13; Recyclable Materials
268.7(b)(6)

Safety-Kleen Fargo's permitted wastes are not shipped as recyclable materials used in a manner constituting disposal subject to the provisions of 40 CFR 266.20(b). Therefore, this section does not apply.

C-3b(7) 270.14(a); 264.13; Recordkeeping
264.73; 268.7(a)
(5),(a)(6),(a)(7), (d)

Safety-Kleen Fargo does no recycling onsite. Therefore, this section does not apply.

C-3c 270.14(a); 264.73; Requirement Pertaining to the Storage of Restricted Wastes
268.50

C-3c(1) 270.14(a); 264.73; Restricted Wastes Stored in Containers
268.50(a)(2)(i)

C-3c(2) 270.14(a); 264.73; Restricted Wastes Stored in Tanks
268.50(a)(2)(ii)

Safety-Kleen Fargo stores restricted wastes in tanks and containers solely for accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal. Containers are marked with their contents and the accumulation start date. Tanks are marked with their contents and the waste movements are maintained in the operating record. The facility complies with the requirements in 40 CFR 262.34 and parts 264 and 265 as wastes are stored for no more than one year, typically much less.

C-3c(3) 270.14(a); 264.73; Storage of Liquid PCB Wastes
268.50(f)

Safety-Kleen Fargo does not store liquid PCB waste on site. Therefore, this section does not apply.

C-3d(2) 270.14(b)(21); Exemption From Prohibition
268.6

Safety-Kleen Fargo does not seek an exemption to this prohibition. Therefore, this section does not apply.

C-3d(3) 270.14(a); 264.73; 268.7; 268.44 Variance From a Treatment Standard

Safety-Kleen Fargo does not seek an exemption to a treatment standard. Therefore, this section does not apply.

C-3d(4) 270.14(a); 264.13(b)(7); 268.4; 267.14 Requirements for Surface Impoundments Exempted from Land Disposal Restrictions

C-3d(4)(a) 270.14(a); 267.13; 268.14 Exemption for Newly Identified or Listed Wastes

C-3d(4)(b) 270.14(a); 264.13; 268.4(a)(1)(b) Treatment of Wastes

C-3d(4)(c) 270.14(a); 264.13(b)(6); 268.4(a)(2)(i),(iv) Sampling and Testing

C-3d(4)(d) 270.14(a); 264.13(b)(7)(iii); 268.4(a)(2)(ii) Annual Removal of Wastes

C-3d(4)(e) 270.14(a); 264.13; 268.270.14(a); 268.4(a)(3),(4)(b) Design Requirements

Safety-Kleen Fargo does not have a surface impoundment. Therefore, these sections do not apply.

Section D-1

Process Information - Containers

Safety-Kleen receives hazardous and non-hazardous wastes at the facility. The drums of used parts washer solvent (mineral spirits/aqueous) are unloaded at the Return and Fill dock. These drums are emptied into the used solvent tank via the drum washer (vat). All other waste drums are stored in the transfer waste storage area, or in the permitted waste storage area. The drums are not opened or transferred into other containers while onsite.

D-1a **270.15;** **Containers With Free Liquids**
 264.175(a),(b)

The floor, curbing and collection trench for the warehouse container storage area (CSA) are made of steel reinforced concrete and the concrete has been poured so that no cracks or gaps exist between them. The concrete contains spills and leaks until the material can be detected and removed. The building floor plan for the CSA is included as Exhibit D1-1.

The Container Storage Area (CSA) is permitted for the storage of (1) sediment from cleaning the drum washer/dumpsters in the Return and Fill station; (2) spent immersion cleaner; (3) dry cleaning wastes; and (4) parts washer wastes. Ten-day transfer wastes (hazardous waste being stored in the course of transportation for 10 days or less), non-hazardous materials/wastes that are not RCRA hazardous, and Safety-Kleen products are also stored in this area, provided the materials stored are compatible. The wastes are not mixed while onsite. Wastes are stored in properly labeled containers to indicate their contents. If the materials stored are not compatible, segregation per 49 CFR 174.81 will be followed. No more than 2,400 gallons of hazardous waste will be stored in the CSA at any time.

D-1a(1) **270.14(b)(1);** **Description of Containers**
 264.171, 172

Containers stored in the CSA typically range from 5 gallon capacity to 55 gallon capacity. Containers stored are typically provided to the waste generators by Safety-Kleen. All waste drums containing hazardous waste meets US D.O.T. Performance Oriented Packaging Standards. Safety-Kleen customers may package wastes in containers not provided by Safety-Kleen. These containers will be inspected prior to pickup to ensure proper DOT rating. Contents of each waste container are verified by the waste marker (label) that is affixed to each container.

Safety-Kleen Systems has a Special Permit issued by the U.S. Department of Transportation-Pipeline and Hazardous Materials Safety Administration that allows re-use of specification drums for transportation without being subjected to the leakproofness testing of 49 CFR 173.28(b)(2). Each drum is inspected for leakage before filling/refilling and shipment. Drums may be reused at facility for mineral spirits parts washer services.

D-1a(2) 270.14(a); Container Management
264.173

With the exception of used parts washer solvent drums, waste drums managed at the facility are not opened. Containers are handled to prevent rupture or leaking. Proper handling of hazardous waste is ensured through proper training. Employees are trained on hazardous waste procedures during their initial training and then annually thereafter, or as needed. When feasible, containers are moved using mechanical means such as drum carts, dollies, or fork trucks. Safety-Kleen employees inspect each waste drum prior to transporting from the customers' location. In the event a container is found to be damaged, leaking, or not in good condition while in storage at the facility, it will be placed into an appropriate salvage container. The salvage container will be properly labeled, and the entire packaging will be transported offsite as per normal waste management protocols. When containers are being prepared for shipment, they will be moved with material handling equipment and/or palletized to maneuver and stack containers.

In case of an emergency, the requirements of 33-24-05-19 NDAC are followed to allow for unobstructed movement of personnel, medical and fire protection equipment, spill control equipment, and decontamination equipment.

Although the floors in the container storage areas are sloped to secondary containment, containers will typically be stored on pallets. Storage on pallets will keep containers from contact with any standing liquids. If containers 15 gallons or larger are stacked, a pallet will separate the layers. The maximum number of containers stored per pallet layer is: 48-5 gallon containers; 9-15 gallon containers, 5-30 gallon containers, and 4-55 gallon containers. Containers of hazardous waste will be stacked no more than two pallets high to ensure stability and safe material handling. The storage height of a double-stacked configuration is approximately 6'6". An example pallet layout is included as Exhibit D1-3. Waste containers will be placed so that the date of accumulation will be clearly marked and visible for inspection. Precautions when handling ignitable wastes are described in Section F-5a.

D-1a(3) 270.15(a)(1); Secondary Containment System Design and Operation
264.175(a),(d)

The CSA is a 27'2" x 8'7" room inside the warehouse building. The CSA has secondary containment in the form of 11.75' x 1.8' x 3.0' trench and a steel-reinforced concrete curb. Total secondary containment is 470 gallons. No more than 2,400 gallons of waste will be stored in this area at any time. The secondary containment calculations for the CSA are included as Exhibit D1-4.

D-1a(3)(a) 270.15(a)(1); Requirement for the Base or Liner to Contain Liquids
264.175

The base in the CSA is steel-reinforced concrete. The concrete is sealed with a coating that is compatible with all materials stored in this area. The containment systems are designed so that

any released liquids are accumulated and contained by the curbing and trenches. Accumulated material will be removed manually (i.e., by absorbents, shovels, etc.).

The storage area and containment system are inspected each operating day. Any accumulated debris or liquids will be removed upon detection. The debris will be evaluated and properly disposed of. If deterioration or damage is noted to the containment systems in the storage area, this will be documented on the inspection record and repairs will be initiated.

D-1a(3)(b) 270.15(a)(2); Containment System Drainage
264.175(b)(2)

See D-1a(2), D-1a(3), and D1a(3)(a) above for narrative description.

D-1a(3)(c) 270.15(a)(3); Containment System Capacity
264.175(b)(3)

The Container Storage Area (CSA) containment system has a capacity of 470 gallons. The secondary containment calculations are included as Exhibit D1-4.

D-1a(3)(d) 270.15(a)(4); Control of Run-On
264.175(b)(4)

The CSA is located within an enclosed warehouse so run-on would not accumulate in this area.

D-1a(3)(e) 270.15(a)(5); Removal of Liquids from Containment System
264.175(b)(5)

The storage areas and containment systems are inspected each operating day. All accumulated liquids will be identified and removed upon detection to prevent overflow. All containers are marked with a proper DOT shipping description, generator information, and manifest reference. If there has been a release that has accumulated, it will be easily identified by locating the leaking container. The leaking container would be placed in a DOT-approved salvage container. Due to the size of containers stored in the CSA, absorbents such as socks or pads would be used to clean up the spill. This waste would be placed into the salvage drum (along with the original shipping container) and shipped off-site for disposal.

D-1b(1) 270.15(b)(1) Test for Free Liquids

All containers are assumed to contain free liquids so will be stored on pallets, grates, or a slotted floor. Therefore, this requirement does not apply.

D-1b(2) 270.14(a); Description of Containers
264.174; 264.172

See section D-1a(1) above.

D-1b(3) **270.14(a);** **Container Management Practices**
 264.173

See section D-1a(2) above.

D-1b(4) **270.15(b)(2);** **Container Storage Area Drainage**
 264.175(c)

See section D-1a(3) above.

The following Process Flow Exhibits are included as examples of containerized waste managed at or transferred through the facility.

Exhibit D1-5 Example Container Process Flow at Fargo Service Center. This is only to illustrate containers passing through the facility with no processing.

Exhibit D1-6 Example Solvent Use and Regeneration Loop at a Safety-Kleen Recycle Center or other permitted process facility or reclaimer.

Section D-2

Process Information - Tanks

The Fargo Service Center has one bulk tank for the storage of hazardous waste. A description of the tank system follows.

D-2a **270.14(b)(a);** **Tank Systems Descriptions, Dimensions and Capacity of Each Tank**
D-2a(1) **270.16(b)**

The used mineral spirits tank is a 12,000 gallon non-pressurized horizontal aboveground storage tank. The tank is 10'6" diameter and 18'1" high. The tank is constructed of 3/16" carbon steel (1/4" thick in the lower third of the tank) that is painted white to reflect sunlight and minimize corrosion. The tank is constructed in accordance with Underwriters Laboratories Standard 142 and is located more than 15 feet from the property line in accordance with the National Fire Protection buffer zone requirements. There are no stairs, walkways, or catwalks associated with the tank. There have been no field modifications to the tank.

D-2a(2) **270.16(c);** **Description of Feed Systems, Safety Cutoff, Bypass Systems, and**
264.194(b) **Pressure Controls**

Used parts washer solvent is returned to the Service Center in containers that can range in size from 5 to 55 gallons. Once at the branch, the transport vehicle will back up to the unloading dock area that includes the elevated Return and Fill/drum washer area (R & F) and grating, underlain by secondary containment in the form of an approximately 8' x 8' x 0.5' metal pan. There is approximately 200 gallon containment capacity. Containment calculations are included as Exhibit D2-1. Return and Fill construction details are included as Exhibit D2-2.

Typically the drums of used parts washer solvent are unloaded onto the R & F for emptying each day. If the drums are not emptied upon receipt at the Service Center, the drums will be stored in the CSA until emptied onsite. Emptying a container requires the operator to open the lid of the drum washer unit and individually pour each drum of used parts washer solvent into it. During container processing, the solvent level in the drum washer is closely monitored and once solvent accumulates to a certain level, it is pumped automatically via float switch activation to the used solvent tank. The pump can also be manually operated. An isometric drawing of the drum washer is included as Exhibit D2-3.

At the end of the operating day, the drum washer is pumped to the lowest possible level and cleaned to be ready for the next day's use. All solids collected from the reservoir of the drum washer are containerized and managed as site-generated hazardous waste. Used parts washer solvent stored in the RCRA permitted tank is regularly transported to a Safety-Kleen Recycle Center or other reclamation site where it is recycled into clean product for redistribution.

Drums of solvent are manually emptied into the drum washer; this is pumped through hard-pipes from the drum washer unit located in the R & F dock to the storage tank. Movement of

used solvent into the tank can be halted simply by discontinuing the drum emptying process. The tank system is equipped with a high level alarm which indicates when the tank is 95% full. If the level in the tank is 95% of capacity, the float activates a switch that activates both a visual strobe light located at the tank, and audible (siren) alarm. The Return and Fill dock is located near the tank and alarms so the employee emptying drums would be alerted to the detected 95% capacity. Simultaneously, the transfer pump is disabled so the tank will not overflow. The pump cannot be restarted until the level of solvent in the tank is below 95% capacity. The high level alarm is inspected each operating day for proper functioning of electrical and mechanical components.

Product solvent is pumped from the storage tank by a 1 ½ horsepower Marlow pump (typically) located in the tank farm containment. The product solvent is dispensed through a hose/nozzle configuration typical of what is utilized at fuel/gas stations. The nozzles are calibrated to click off when the solvent reaches a predetermined level in the drums. This is a manned operation, so there is little risk of overfilling of the product drum if the nozzle fails to click off automatically.

There is another Marlow pump (typically) located within the R & F structure (beneath the grating; in the secondary containment) that moves the used solvent placed into the drum washer to the used solvent tank in the adjacent tank farm. There is a control panel for all pumps associated with the tank farm and R & F located inside the warehouse. The warehouse area is accessible only by Safety-Kleen personnel. The pumps are energized only when the power is turned on at the panel. The pumps are not activated unless parts washer solvent is being added to the used solvent tank or being pumped from the product solvent tank.

Product solvent is delivered by bulk tanker with typically a 7,000 gallon capacity. The same vehicle transports a load of used solvent. The driver of the transport vehicle conducts product and used solvent transfer. The vehicle parks on a concrete loading pad adjacent to the tank farm. Prior to transferring product into the tank, the driver verifies there is adequate tank capacity for the entire load scheduled for delivery. The driver places a bucket to capture any drips that may occur when connecting and disconnecting the delivery hoses on the tanker. After the driver delivers the load of clean product, he/she determines available capacity in the tanker. The transfer hose is connected to the exit line on the used solvent pipe and the used solvent is transferred into the tanker. The transfer operations are monitored at all times by the driver. To eliminate the risk of a static charge during transfer operations, the tanker is grounded and bonded

There are no bypass systems. The tank is equipped with a pressure/vacuum vent that operates at two ounces of pressure and one ounce of vacuum. The specific gravity of the hydrocarbon-based parts washer solvent is approximately 0.8 and the vapor pressure is less than 2mm-Hg at 68°F.

Product Name	Vapor Pressure at 68° F (20°C)				Vapor Pressure at 100° F (38°C)			
	mm-Hg	psia	kPa	atm	mm-Hg	psia	kPa	atm
Premium Gold/150	0.2	0.004	0.027	0.0003	0.6	0.012	0.08	0.001

D-2a(3) 270.16(d) Diagram of Piping, Instrumentation, and Process Flow

Tank system diagrams are included as:

- Exhibit D2-4 12,000 Gallon Used Solvent Storage Tank Diagram
- Exhibit D2-5 Moorman Bros. Tank Gauge Details
- Exhibit D2-6 Used Solvent Tank High Level Alarm System Diagram
- Exhibit D2-7 Return & Fill / Tank Piping
- Exhibit D2-8 Used Solvent Piping Schematic
- Exhibit D2-9 Tank Farm Construction Details
- Exhibit D2-10 Tank Farm Secondary Containment Calculations

D-2a(4) 270.16(j); 264.17(b); 264.198 Ignitable, Reactive, and Incompatible Wastes

The facility does not manage nor treat any reactive or incompatible waste. Ten-day transfer wastes may include reactive wastes. Ignitable waste is not treated, rendered, or mixed before or immediately after placement into the tank system so that the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable.

The tank is equipped with a pressure/vacuum vent which operates at two ounces of pressure and one ounce of vacuum. The tank is further equipped with a dedicated, secondary containment system. The specific gravity of the hydrocarbon-based parts washer solvents is approximately 0.8 and the vapor pressure is less than 2mm-Hg at 68 degrees F.

The ignitable waste is stored in such a way that it is protected from any material or conditions that may cause the waste to ignite. No hot work (i.e., welding) is done in the vicinity of the tank. The tank is also painted white to reflect sunlight.

D-2b(1) 270.16(a); 264.191 Assessment of Existing Tank System Integrity

It is assumed the tank system was installed in early 1978 and is therefore considered an Existing Tank System.

D-2d **270.16(g);** **Containment and Detection of Releases**
264.193

Secondary containment is inspected each operating day (typically Monday through Friday) so any accumulated liquids would be detected shortly after occurrence. Any precipitation in the secondary containment system will be removed within 24 hours of the end of the rainfall/snow event or by the end of the next operating day, whichever comes later. In cold weather, it may not be possible to remove all traces of snow or ice without damaging the sealant in the secondary containment or introducing a spark into the containment area. In such instances snow and ice will be removed to the extent possible to avoid damaging the secondary containment and to maintain the ability of the containment to contain precipitation from a 24-hour rainfall and 25-year event. Snow may be removed by shoveling. Traces of ice and snow will be removed when the temperature rises sufficiently to melt them.

If waste has accumulated in the tank farm containment, it will be removed by absorbents, intrinsically rated electric pump, or by a vacuum-type truck; dependent upon volume. All waste removed will be evaluated (hazardous waste determination) and managed appropriately.

The Return and Fill inspected for leaks during each operating day. This is located inside a warehouse so it is highly unlikely precipitation will enter the containment area. If liquid is present, it will be removed within 24 hours of detection.

D-2d(1)	270.16(g);	Description of the Design, Construction, and Operation of the
	264.193(b)-(f)	Secondary Containment System
D-2d(1)(a)	270.16(g);	Tank Age Determination
	264.193(a)	

It's estimated the tank was constructed in 1978 and was and installed in 1978.

D-2d(1) (b)	270.16(g);	Requirements for Secondary Containment and Leak Detection
	264.193(b)(c);	
	264.1101(b)(3)(iii)	

The secondary containment for the tanks consists of a poured concrete slab and dike wall with a capacity of 31,551 gallons. The slab is steel-reinforced concrete. The secondary containment foundation has a minimum strength of 3,000 psi. The strength and thickness of the secondary containment system is sufficient to prevent failure owing to pressure gradients including static head and external hydrogeological forces, physical contact with the waste which may be exposed, climatic conditions, and the stresses of daily operation, including stresses from nearby vehicular traffic. The containment system is a passive system. Any accumulated materials remain until manually removed by facility personnel. The secondary containment is capable of collecting releases and accumulated liquids until the collected material is removed. The floor of the diked area is slightly sloped to drain to a collection sump. The tank farm floor is coated with a protective coating, or a concrete densifier, that is compatible with all materials stored in this area.

**D-2d(1)(c) 270.16(g); Requirements for External Liner, Vault, Double-Walled or Equivalent
264.193(d)(e) Device**

The secondary containment system is considered to be a concrete liner that is:

- Designed or operated to contain 100% of the capacity of the largest tank within its boundary.
- Designed to prevent run-on or infiltration of precipitation into the external liner system unless the collection system has sufficient excess capacity to contain run-on or infiltration from a 25 year, 24 hour rainfall event. The tank farm containment system has an excess capacity of 11,161 gallons. Reference Exhibit D2-9 for calculations.
- Maintained to be free of cracks and gaps. The containment system is inspected per schedule and repaired as needed, when indicated on the daily inspection form.
- Designed and installed to surround the tank completely and cover all surrounding earth likely to come into contact with the waste if a release from the tank (capable of preventing lateral and vertical migration of waste).

**D-2d(1)(d) 270.16(g); Secondary Containment and Leak Detection Requirements for Ancillary
264.193(f) Equipment**

All piping is aboveground. All piping, valves, flanges, and connections are visually inspected for leaks each operating day. Much of the piping and drum washers are over secondary contained areas. Any piping that does not have secondary containment has welded joints and connections. There is no piping that passes through secondary containment. Piping is painted to provide protection against weather deterioration. All ancillary equipment is inspected each operating day for leaks and any paint or piping deterioration will be noted and repairs initiated.

**D-2d(1)(e) 270.16(g); Containment Buildings Used as Secondary Containment for Tank
264.1101(b)(3)(iii) Systems**

There is no containment building used as secondary containment for the tank system. This section does not apply.

**D-2d(2) 270.16(h); Requirements for Tank Systems Until Secondary Containment is
264.193(i) Implemented**

The tank system has secondary containment; therefore this section does not apply.

**D-2d(3)(a)-(c) 276.16(h); Variance From Secondary Containment Requirements
264.193(g)**

The tank system has secondary containment for the tank system. This section does not apply.

D-2e **276.16(i);** **Control and Practices to Prevent Spills and Overfills**
264.194(a),(b);
264.195

- (a) The facility places only used parts washer solvent (mineral spirits) into the tank system. This will not cause the tank system to rupture, leak, corrode, or otherwise fail.
- (b) Appropriate controls and practices to prevent spills and overflows include:
 - 1. The Return and Fill process is a manual operation. All drums of used solvent are manually emptied into the drum washer. The used mineral spirits solvent is pumped through hard pipes from the drum washer receptacle located in the Return and Fill dock to the storage tank. Movement of used solvent into the tank can be halted simply by discontinuing the drum emptying process. The tank system is equipped with a high level alarm which indicates when the tank is 95% full. If the level in the tank is 95% of capacity, the float activates a switch which activates both visual and audible alarms. The transfer pump is also disabled so that the tank will not overflow. The pump cannot be restarted until the level of solvent in the tank is below 95% capacity. The high level alarm is tested daily for proper functioning of electrical and mechanical components.
 - 2. This is a covered tank so it is not necessary to maintain sufficient freeboard for wave or wind action or by precipitation.

Response To Leaks Or Spills From Tanks (40 CFR 264.196(a-f))

- a) Stopping Waste Addition – Should a leak or spill occur from the tank Safety-Kleen personnel will immediately stop the flow of hazardous waste into the system and inspect the system to determine the cause of the leak or spill.
- b) Removing Waste - If the release was from the tank system, Safety-Kleen will, within 24 hours after detection of the leak or, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system. This can typically be accomplished by transferring material into containers or pumping into a tanker. If the material released was to a secondary containment system, all released materials will be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.
- c) Containment of Visible Releases – Safety-Kleen will conduct a visual inspection of the release. Safety-Kleen will prevent further migration of the leak or spill to the environment. Any contamination will be removed and disposed of properly.
- d) Notifications and Reports –
 - 1. A release to the environment will be reported to the North Dakota Department of Environmental Quality and local agencies immediately, if the released chemical is on the list of hazardous substances under Section 103(a) of CERCLA.
 - 2. Within 30 days of detection of a release to the environment, Safety-Kleen will file

- a report containing the following information:
- i. Likely route of migration of the release;
 - ii. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
 - iii. Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the SERC as soon as they become available.
 - iv. Proximity to down gradient drinking water, surface water, and populated areas; and
 - v. Description of response actions taken or planned.
- e) Provision of secondary containment, repair, or closure - Safety-Kleen will satisfy the requirements of paragraphs 40 CFR 264.196 (e)(2) through (4) or the tank system will be closed.
- f) Certification of Major Repairs – If the repairs to the tank system are extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), Safety-Kleen will obtain a certification by a Professional Engineer in accordance with 40 CFR 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. The certification will be placed in the operating record and maintained until closure of the facility.

Section E
Groundwater Monitoring

This section does not apply.

Section F

Procedures to Prevent Hazards – Security

F-1a **270.14(b)(4);** **Security Procedures and Equipment**
264.14

The facility is secured with a chain link fence topped by barbed wire surrounding the operational areas. All access gates are locked when the facility is unoccupied. In addition, outdoor lights illuminate the area when necessary.

The office/warehouse building is secured with locks on all doors and warning signs are posted at entrances to work and waste storage areas. The waste storage units are accessible only to Safety-Kleen employees. Material can only be added to the waste tank or removed from the product storage tank by activating the pumps, and the control is located remotely inside the warehouse. The pumps are activated only when facility personnel are operating on the Return & Fill dock.

The fence and gates are inspected at least weekly. Any needed repairs will be initiated as soon as possible upon detection.

F-1a(1) **270.14(b)(4);** **24-Hour Surveillance System**
264.14

The facility does not have a 24-hour surveillance system. Security is achieved by the passive fence and gate system.

F-1a(2)(a) **270.14(b)(4);** **Barrier**
264.14

See Section F-1a above for the description of the artificial barrier.

F-1a(2)(b) **270.14(b)(4);** **Means To Control Entry**
264.14

See Section F-1a above for the description of the entry control.

F-1a(3) **270.14(b)(4);** **Warning Signs**
264.14

Warning signs stating “Danger-Unauthorized Personnel Keep Out” are posted at each entrance to the active portion of the facility, and at other locations, in sufficient numbers to be seen from any approach to the active portion.

F-1b; F-1b(1)-(2) **270.14(b)(4);** **Waiver; Injury to Intruder; Violation Caused By Intruder**
264.14

Safety-Kleen is not claiming a waiver. Therefore, this section does not apply.

F-2 **270.14(b)(5);** **Inspection Schedule**
264.15

The facility safety equipment is inspected weekly. This includes inspection of:

- Fire Extinguishers
- First Aid Kit
- Personal Protective Equipment
- Gates and Locks
- Eyewash and Shower
- Spill Cleanup Equipment
- Communication Devices
- Fence

Examples of the form utilized to record the inspection are included in Exhibit F-1. Inspections may be recorded electronically. An inspection schedule matrix is included as Exhibit F-9.

F-2a **270.14(b)(5);** **General Inspection Requirements**
264.15(a)(b);
264.33

Safety-Kleen conducts regular inspections of the facility for equipment malfunctions, structural deterioration, operator errors, and discharges that could cause or lead to the release of hazardous waste constituents and adversely affect the environment or threaten human health. The Branch (i.e., Service Center) Manager or his designee is responsible for carrying out and documenting the facility inspection. The inspector must note any repairs that are needed and assure that they are completed. If facility personnel cannot carry out the repairs, the Engineering, Environmental Compliance and/or Health and Safety Department must be notified for assistance. Completion of repairs are managed in the corporate inspection system. These inspections also serve as a source for preventative maintenance. Exhibits F-1, F-3 and F-5 are example inspection forms. Inspections may be recorded electronically.

F-2a(1) **270.14(b)(5);** **Types of Problems**
264.15(a)(b);

The entire tank system and ancillary equipment is aboveground and visible for inspection. The facility inspections include the following:

- a. Tank Inspections – At a minimum, the tanks holding product and used materials are each tank is inspected each operating day. The inspections include checks of the high level audible and visual alarms and of the volume held in each tank. When the tank used to store used solvent is 85% full; a pickup is scheduled. The material will not exceed 95% of the tank volume at any time.

The facility conducts visual inspection of the tank system each operating day, looking for evidence of leaking equipment, signs of corrosion or deterioration that would threaten the integrity of the system. Sudden deviations in the solvent volumes will be investigated and their causes determined. If necessary, repairs must be initiated immediately. Leaking tanks will be removed from service until such time that repairs have been made and certified by a Professional Engineer.

The tanks are not equipped with pressure or temperature gauges.

The tank system components (i.e. all piping including ancillary piping located under the grating of the return and fill station, bolts around the base of the tanks, tank coatings, side man ways, insulation, etc.) are inspected each operating day to detect for corrosion or releases of waste. All the tanks and the ancillary equipment are located above ground and are accessible.

The construction materials of the secondary containment and the area immediately surrounding the tank systems are inspected each operating day to detect erosion (cracks or broken cement) or signs of releases of hazardous waste (wet spots). Any damage to tanks (such as rust or loose fixtures) or secondary containment must be noted and repairs initiated. Tank repairs will be certified by a PE registered.

Inspections are also conducted to comply with Subpart CC requirements. Included in this inspection is an annual inspection of the emergency pressure relief vent located on top of the used solvent tank.

Periodically, it is necessary to remove sediment and other heavy material from the bottom of the tank. This is done when the sediment impacts the ability to pump from the bottom outlet of the tank, normally every year or two. First a tanker removes all of the free solvent liquid available to draw level down as much as possible. The side manhole cover is then removed. Typically, a vacuum truck driver will use a non-sparking stinger whose length is greater than or equal to the width of the tank to remove all of the tank bottoms to transfer the material into a vacuum truck. If it is necessary for the tank to be entered, OSHA Confined Space Entry procedures will be followed. Only personnel trained in OSHA Confined Space Entry will be allowed entry. Example inspection forms for the tank system are located in Exhibit F-3.

- b. Product Solvent Dispensing Equipment – The solvent dispensing hose, connections, and valves are inspected for damage (such as cracks or leaks) and proper functioning each operating day. The pumps, pipes, and fittings are checked for damage and proper functioning. Any damage to the solvent dispensing equipment will be noted and repaired.
- c. Container Storage Area (CSA) – The Container Storage Area is inspected each operating day. The total volume of the waste held in the CSA will not exceed the permitted volume for the area and will be verified on the inspection each operating day. 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 hazardous waste regulations. The secondary containment system is inspected for deterioration or

failure. If cracks or leaks are detected, repairs will be initiated immediately. Example inspection forms for the container storage area is located in Exhibits F-5.

- d. Return & Fill Station – The wet dumpster/drum washer in the return & fill area is inspected each operating day for leaks and sediment buildup. Any leaks must be noted and repaired immediately. The leaking dumpster will be removed from service until such time that repairs have been made. Excess sediment removed from the dumpster is drummed for shipment offsite for disposal. Secondary containment pans are inspected each operating day for excess debris. Accumulated debris will be removed and containerized for offsite disposal.
- e. Safety and Security Equipment – See Section F-2 (above) for a list of safety equipment that is inspected weekly.

F-2a(2) **270.14(b)(4);** **Frequency of Inspections**
264.15(b)(4);

The inspection schedule presented is adequately protective of environmental and human health.

F-2a(3) **270.14(b)(5);** **Schedule of Remedial Action**
264.15(b)(c)

If a problem is discovered during the inspection that can be corrected immediately by the inspector, it is done so and noted on the inspection record. If there is an item noted that requires maintenance, repair, or replacement, the site manager is noticed. If a problem is discovered that could lead to health or environmental damage, the affected unit (if a storage tank or container) will be immediately taken out of service. If required, Safety-Kleen's compliance and engineering department will ensure completion as soon as possible. These items will be entered into a database for tracking the required actions.

F-2a(4) **270.14(b)(5);** **Inspection Log**
264.15(d)

The facility is inspected for malfunctions and deterioration, operator errors, and discharges that may lead to release of hazardous waste constituents to the environment; or a threat to human health. Inspection records are kept for at least 3 years from the date of inspection. Example inspection forms are included as Exhibits F-1, F-3 and F-5. Inspections may be recorded electronically.

F-2b(1) **270.14(b)(5); 264.175** **Container Inspection**

Reference Section F-2a(1)(c) Container Storage Areas (CSA, FSA) above.

F-2b(2) 270.14(b)(5); Tank System Inspection
264.195

The storage tank system is inspected each operating day. This includes inspection of:

- Tank volumes
- Tank gauges (must be readable)
- Product dispensing system (see Section F-2a(1)b)
- High level alarm (test of siren/strobe)
- All piping for corrosion, distortion, leaks
- Transfer pumps for leaks

F-2b(2)(a) 270.14(b)(5); Tank System External Corrosion and Releases
264.195(c)(1)

The storage tank system is inspected each operating day. This includes looking for any evidence of spills or releases such as wet spots, discoloration on the exterior of the tank, and corrosion. The tank is painted a light color, so any corrosion or seepage will be easily detected.

F-2b(2)(b) 270.14(b)(5); Tank System Construction Materials and Surrounding Area
264.195(c)(2)

The exterior surfaces of the tank, piping, secondary containment, as well as the area surrounding the tank system are inspected each operating day to detect erosion or signs of releases.

F-2b(2)(c) 270.14(b)(5); Tank System Overfilling Control Equipment
264.195(a)

The tank system is equipped with a high level alarm which indicates when the tank is 95% full. If the level in the tank is 95% of capacity, the float activates a switch that activates both a visual strobe light located at the tank, and audible (siren) alarm. The employee emptying drums would be alerted to the detected 95% capacity. Simultaneously, the transfer pump is disabled so the tank will not overflow. The pump cannot be restarted until the level of solvent in the tank is below 95% capacity. The high level alarm is inspected each operating day for proper functioning of electrical and mechanical components.

F-2b(2)(d) 270.14(b)(5); Tank System Monitoring and Leak Detection Equipment
264.195(b)

The facility does not have pressure or temperature gauges or monitoring wells from which to gather data. Any leaks are discovered by visual or olfactory detection.

F-2b(2)(e) 270.14(b)(5); Tank System Cathodic Protection
264.195(g)

The facility does not have a cathodic protection system. Therefore, this section does not apply.

F-2b(3)	270.14(b)(5); 270.18(d); 264.254(b)	Waste Pile Inspection
F-2b(3)(a)	270.14(b)(5); 264.254(b)	Run-on and Run-off Control System
F-2b(3)(b)	270.14(b)(5); 264.254(b)(2)	Wind Dispersal System
F-2b(3)(a)	270.14(b)(5); 270.18(d); 264.254(b)(3)	Leachate Collection and Removal System

The facility does not have any waste piles. Therefore, these sections do not apply.

F-2b(4)	270.14(b)(5); 264.226(b)	Surface Impoundment Inspection
F-2b(4)(a)(1)	270.14(b)(5); 264.226(b)(1)	Overtopping Control System
F-2b(4)(a)(2)	270.14(b)(5); 264.226(b)(2)	Impoundment Contents
F-2b(4)(a)(3)	270.14(b)(5); 264.226(b)(3)	Dikes and Containment Devices
F-2b(4)(b)	270.14(b)(5); 264.226(c)	Structural Integrity
F-2b(4)(c)	270.14(b)(5); 264.226(d)	Leak Detection System

The facility does not have any surface impoundments. Therefore, these sections do not apply.

F-2b(5)(a)	270.14(b)(5); 264.347(b)	Incinerator and Associated Equipment
F-2b(5)(b)	270.14(b)(5); 264.347(c)	Incinerator Waste Feed Cutoff System and Alarms

The facility does not have operate an incinerator. Therefore, these sections do not apply.

F-2b(6)	270.14(b)(5); 264.303(b)	Landfill Inspection
F-2b(6)(a)	270.14(b)(5); 264.303(b)(1)	Run-on and Run-off Control Systems
F-2b(6)(b)	270.14(b)(5); 264.303(b)(2)	Wind Dispersal Control System
F-2b(6)(c)	270.14(b)(5); 264.303(b)(3)(c)	Leachate Collection and Removal System

The facility does not operate a landfill. Therefore, these sections do not apply.

F-2b(7)	270.14(b)(5); 264.273(g)	Land Treatment Facility Inspection
F-2b(7)(a)	270.14(b)(5); 264.273(g)(1)	Run-on and Run-off Control Systems
F-2b(7)(b)	270.14(b)(5); 264.273(g)(2)	Wind Dispersal Control System

The facility does not operate a land treatment facility. Therefore, these sections do not apply.

F-2b(8)	270.14(b)(5); 264.602	Miscellaneous Unit Inspections
----------------	----------------------------------	---------------------------------------

The facility does not operate a miscellaneous unit. Therefore this section does not apply.

F-2b(9)	270.14(b)(5); 264.15; 266.102(a)(2)	Boilers and Industrial Furnaces (BIF) Inspection
----------------	--	---

The facility does not operate a BIF unit. Therefore, this section does not apply.

F-2b(10)	270.14(b)(5); 264.1101(c)(3)	Containment Building Inspection
-----------------	---	--

The facility does not operate a containment building. Therefore, this section does not apply.

F-2b(11)	270.14(b)(5); 264.574	Drip Pad Inspection
-----------------	----------------------------------	----------------------------

The facility does not operate a drip pad. Therefore, this section does not apply.

F-3	270.14(b)(6); 264.32(a)-(d)	Waiver or Documentation of Preparedness and Prevention Requirements
------------	--	--

The facility is not requesting a waiver of the preparedness and prevention requirements.

F-3a	270.14(b); 264.32	Equipment Requirements
F-3a(1)	270.14(b); 264.32(a)	Internal Communication

Internal communication within the facility is accomplished by voice or a loudspeaker paging system. In the event of an emergency, all employees and contractors/guests onsite will be informed of the situation and actions required.

F-3a(2)	270.14(b); 264.32(b)	External Communication
----------------	---------------------------------	-------------------------------

External communication for summoning emergency assistance from local police, fire, or other emergency response agency is accomplished via the telephone system or by cell phone. A list of emergency telephone numbers is posted by each telephone in the facility.

F-3a(3) 270.14(b); *Emergency Equipment*
264.32(c)

There are spill kits (drum) located throughout the facility. Each kit typically contains a shovel, absorbent material (i.e. sheets/mats, granular, booms), a protective apron, and gloves. In addition to materials contained in the spill kits, there is typically a large supply of various absorbent materials in inventory for sale to our customers. In the event of an emergency, these items are available for use. A list of emergency equipment is included as Exhibit F-7; and a diagram indicating location of each item is included as Exhibit F-8.

An emergency eyewash is available near the Return & Fill. There is also a standard shower located in the facility restroom that can be used to decontaminate.

F-3a(4) 270.14(b); *Water and Fire Control*
264.32(d)

There are numerous 10-pound Class ABC fire extinguishers located throughout the facility (reference Exhibit F-7). Water for firefighting is available from the City of Fargo. The Fargo Fire Department will be summoned for any fire that cannot be extinguished with a single fire extinguisher.

F-3a(5) 270.14(b); *Testing and Maintenance of Equipment*
264.33

A documented inspection of safety equipment is conducted weekly. The example inspection form is included as Exhibit F-.

F-3a(6) 270.14(b); *Access to Communication or Alarm System*
264.34

All employees have access to the telephone system to communicate internally and externally as needed.

F-3b 270.14(b); *Aisle Space Requirement*
264.35

In case of an emergency, the requirements of 33-24-05-19 NDAC are followed to allow for unobstructed movement of personnel, medical and fire protection equipment, spill control equipment, and decontamination equipment.

F-3c	270.14(b); 264.37	Documentation of Arrangements with:
F-3c(1)	270.14(b); 264.37(a)(1)	Police and Fire Department
F-3c(2)	270.14(b); 264.37(a)(2)	Emergency Response Team
F-3c(3)	270.14(b); 264.37(a)(3)	Local Hospital

Safety-Kleen provides a copy of the facility Contingency Plan to the Fargo Fire and Police Departments, and Sanford Medical Center. When the Contingency Plan is revised, copies are sent to the Fire, Police, and Hospital to keep them apprised of current information.

F-3c(4)	270.14(b); 264.37(b)	Document Agreement Refusal
----------------	-----------------------------	-----------------------------------

In the event any emergency response agency refuses to enter into a coordination agreement, documentation of this will be maintained at the facility.

F-4	270.14	Prevention Procedures, Structures, and Equipment
F-4(a)	270.14(b)(8)(i)	Unloading Procedures

The Fargo Service Center was designed to minimize the possibility of spills or fires and to minimize the effects of any accidents that may occur.

Proper handling of hazardous waste is ensured through proper training. Employees are trained on hazardous waste procedures during their initial training and then annually. It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Safety-Kleen will store and transport any incompatible wastes in accordance with 49 CFR 177.848 (segregation of hazardous materials). Hazardous waste is received onsite in containers.

Containers of waste are off-loaded from route trucks into an enclosed storage area. Waste containers that will be placed into storage are moved from the route truck via a hydraulic platform lift gate that is on each route truck. The employee moves containers from the cargo carrying portion of the vehicle onto the lift gate that is extended flush with bed of the truck. The lift gate is then lowered to grade level. The drums are moved from the lift gate into the appropriate storage area by forklift, pallet jack, or drum dolly. The area where the route trucks park while unloading is paved.

Used parts washer solvent is returned to the facility in containers than can range in size from 5 to 55 gallons. Once at the branch, the transport vehicle backs up to the Return and Fill (R & F) unloading dock. The raised dock surface is constructed of metal grates. Containers of used parts washer solvent are manually unloaded onto the R & F to be emptied into the used solvent tank. The area where the route trucks park while unloading is paved.

The storage tanks are located in a tank farm with a containment area designed and operated to remove accumulated liquids through a sump located in the containment dike. Accumulated precipitation in the secondary containment system will be removed in a timely basis after detection. Accumulated liquids will be removed by use of a vacuum truck or portable electric pump that must be placed into the sump. An automatic pump is not present in the tank farm.

Product solvent is delivered by bulk tanker with a typically 7,000 gallon capacity. The same vehicle transports a load of used solvent. The driver of the transport vehicle conducts product and waste transfer. The vehicle parks adjacent to the tank farm. Prior to transferring product into the tank, the driver verifies there is adequate tank capacity for the entire load scheduled for delivery. After the driver delivers the load of clean product, he/she determines available capacity in the tanker. The transfer hose is connected to the exit line on the used solvent pipe and the used solvent is transferred into the tanker. The transfer operations are monitored at all times by the driver. To eliminate the risk of a static charge during transfer operations, the tanker is grounded and bonded.

F-4b 270.14(b)(8)(ii) *Runoff*

The containers are stored in an enclosed warehouse and not subject to run on or runoff. Tank stored is in a diked tank farm. The diking prevents run on and runoff. The dike is constructed to contain the anticipated collection from a 24-hour, 25-year storm. Drums of used mineral spirits solvent are emptied in the Return and Fill which is contained so that any material splashed, dripped, or spilled will not runoff.

F-4c 270.14(b)(8)(iii) *Water Supplies*

The Fargo Service Center is operated in a manner that is protective of water supplies. Containers of waste are storage in enclosed areas and the transfer of used solvent to the bulk storage tank is conducted over secondary containment. Bulk storage tanks are located within a tank farm that has adequate containment capacity. The facility is maintained to prevent waste materials migrating to the environment.

F-4d 270.14(b)(8)(iv) *Equipment and Power Failure*

A power failure would not result in a spill. Should a power failure occur, all activities requiring electricity will necessarily cease. The transfer pump used to pump the used solvent into the storage tank is electric and will fail during a power outage. No liquid can back flow from the tank because the fill line has a check valve located near the pump. Since the tank is not pressurized, the lines will be in a stable state until the power is restored and the pump is restarted. The high level alarm on the tank requires electricity to operate. However, the only way used solvent can be transferred into the storage tank is via the transfer pump and the pump will not be operable during a power outage.

The transfer pumps used to pump clean solvent into the storage tanks, or remove used solvent from the tank are located on the transport vehicles so a power failure will not have any effect on removal of material from the tank.

F-4e 270.14(b)(8)(v) Personnel Protection Procedures

All Safety-Kleen employees receive extensive training on recognizing hazards in the workplace and how to avoid or best manage them. Safety-Kleen's Health and Safety Department completes hazard assessments for all branch activities and issues a Personal Protection Equipment (PPE) Matrix that all employees are required to follow. The current PPE Matrix is included in Exhibit C-4.

F-4f 270.14(b)(8)(vi) Procedures to Minimize Releases to the Atmosphere

The tank system is equipped with a high level alarm that indicates when the tank is 95% full. If the level in the tank is at 95% capacity, the float activates a switch that activates the visual and audible alarms. The transfer pump in the drum washer is disabled so that the tank will not overflow. The high level alarm is inspected daily for proper functioning of electrical components. The volume of used solvent in the bulk storage tank is visually monitored daily to ensure adequate capacity for the day's activities. Tanks and piping are inspected each operating day for signs of deterioration.

Containers of used solvent are opened and immediately emptied into the drum washer. When drums of product solvent are being filled, they are not left unattended, and are closed with a lid and ring as soon as they are full. Other containers of waste are not opened while onsite. These containers are inspected each operating day for signs of deterioration.

**F-5 270.14(b)(9) Prevention of Reaction of Ignitable, Reactive and Incompatible Waste
F-5a 270.14(b)(9); Precautions to Prevent Ignition or Reaction of Ignitable or Reactive
 264.17(a)(b) Wastes**

The facility does not manage nor treat any reactive or incompatible waste. Ten-day transfer wastes may include reactive wastes. It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Safety-Kleen will store and transport any incompatible wastes in accordance with 49 CFR 177.848, Segregation of Hazardous Materials. Any wastes that may be incompatible with others wastes would be managed as 10-day transfer wastes and 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.

The facility receives combustible mineral spirits solvent. The following is a list of general 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 ignitable materials. Smoking is not permitted within the facility and No Smoking warning signs are posted throughout the facility.
- 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 used parts washer 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 tank is 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; 2 mm-Hg at 68°F, and is only reactive with reactive metals and strong oxidizers. Solvent vaporization will be minimal under normal working conditions.
 3. Produce uncontrolled fires or gases in quantities to pose a risk of fire or explosion (See “a” above and “c” following).
 4. Damage the structural integrity of the facility. Safety-Kleen parts washer 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. Fire extinguishers are checked once per week by facility personnel to ensure proper charge and once per year by a fire extinguisher company.
- e. There is a potential for static electricity buildup during transfer activities to and from the bulk solvent storage tanks and the transport tanker. This is controlled through bonding and grounding. In bonding, two containers or fluid streams are electrically connected. This neutralizes the buildup of a difference in static charge or potential between the two containers. In grounding, the containers are electrically connected to the earth, which drains off the buildup of static charge or potential.

The facility manager is responsible for implementation of the site hot-work permit program. This responsibility includes identifying areas in the facility where a hot-work permit is required. Open flames are not permitted in any areas where ignitable or flammable materials are stored.

In accordance with NFPA 30 “Flammable and Combustible Liquids Code”, Tables 2-1 to 2-6; the minimum buffer zone requirements for the storage tanks are:

1. Tanks must be located a minimum of 15 feet from the property line which is or can be built upon, including the opposite side of a public way.
2. Tanks must be located a minimum of 5 feet from the nearest side of any public way or from nearest important building on the same property.

Tank storage is in compliance with the above buffer zone requirements.

F-5(b) **270.14(b)(9);** **General Precautions for Handling Ignitable or Reactive Waste and**
264.17(a) **Mixing of Incompatible Waste**

The facility does not mix incompatible wastes. The facility only comingles used parts washer solvent onsite and this will not cause any reaction that would generate heat, produce flammable

byproducts, cause risk of fire or explosion, threaten structural integrity, or pose threat to human life or the environment. The facility occasionally handles small volumes of oxidizers on a transfer waste basis. These containers will be kept on separate pallets, segregated from ignitable wastes, in accordance with 49 CFR 177.848.

F-5b(1) **270.14(b)(9);** **Documentation of Adequacy of Procedures**
 264.17(c)

The facility does not mix incompatible wastes. Therefore, this section does not apply.

F-5c **270.15(c);** **Management of Ignitable or Reactive Wastes in Containers**
 264.176

Containers storing ignitable wastes and materials are stored at least 15 meters (approximately 50 feet) from the property lines.

F-5d **270.15(d);** **Management of Incompatible Wastes In Containers**
 264.177

It is Safety-Kleen's standard operating procedure to use containers made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. Containers provided by the generators will be, by necessity, compatible with the contents. Any incompatibility between the container and contents would have resulted in a reaction at the generator location, prior to being offered for shipment. Safety-Kleen will store and transport all wastes in accordance with U.S. DOT segregation standards (49 CFR 177.848). There is no onsite mixing or commingling of incompatible wastes onsite.

F-5e **270.16(j);** **Management of Ignitable or Reactive Wastes in Tank Systems**
 264.198

The used parts washer solvent is only stored in the tank system. Safety-Kleen does not treat ignitable waste so that it is no longer ignitable.

F-5f **270.16(j);** **Management of Incompatible Wastes In Tank Systems**
 264.199

The used parts washer solvent is only stored in the tank system. No incompatible wastes will be managed in the tank system.

F-5g **270.18(g);** **Management of Ignitable or Reactive Wastes Placed in Waste Piles**
 264.256

F-5h **270.16(h);** **Management of Incompatible Wastes in Waste Piles**
 264.257

The facility does not have a waste pile. Therefore, these sections do not apply.

F-5i	270.17(h); 264.229	Management of Ignitable or Reactive Wastes Placed in Waste Piles
F-5j	270.17(h); 264.230	Management of Incompatible Wastes Placed in Surface Impoundments

The facility does not have a surface impoundment. Therefore, these sections do not apply.

F-5k	270.21(f); 264.312	Management of Ignitable or Reactive Wastes Placed in Landfills
F-5l	270.21(g); 264.313	Management of Incompatible Wastes Placed in Landfills

The facility does not have a landfill. Therefore, these sections do not apply.

F-5m	270.20(g); 264.281	Management of Ignitable or Reactive Wastes Placed in Land Treatment Units
F-5n	270.20(h); 264.282	Management of Incompatible Wastes Placed in Land Treatment Units

The facility does not have a land treatment unit. Therefore, these sections do not apply.

Section G

Contingency Plan

G-1 **270.14(b)(7)** **Contingency Plan**

The Contingency Plan is located in Exhibit G-1.

G-2 **270.14(b)(7);** **Emergency Coordinators**
264.52(d);
264.55

There is an emergency coordinator is on-site or on-call at all times. The emergency coordinator and the alternate coordinator are familiar with all aspects of the Contingency Plan, the operations and activities at the facility, the location and characteristics of materials handled, the location of records within the facility, and the facility layout.

G-3 **270.14(b)(7);** **Implementation**
264.52(a);
264.56(d)

The Contingency Plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could harm human health or the environment.

G-4 **270.14(b)(7);** **Emergency Actions**
264.56
G-4a **270.14(b)(7);** **Notification**
264.56(a)

Employees are authorized to activate the internal facility alarm or communication systems to notify all facility personnel and the emergency coordinator or alternate. The coordinator will notify state and local agencies as necessary. Safety-Kleen's qualified emergency responder will be notified, if additional resources are needed.

G-4b **270.14(b)(7);** **Identification of Hazardous Materials**
264.56(b)

The emergency coordinator will identify the character, amount, and extent of any released materials. The coordinator may do this in conjunction with personnel who first identified the release, reviewing operating records, shipping documents, and chemical analyses.

G-4c **270.14(b)(7);** **Assessment**
 264.56(c)

The emergency coordinator must assess possible hazards to human health and 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 (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous runoff).

G-4d **270.14(b)(7);** **Control Procedures**
 264.52(a)

Every facility employee is trained on the actions they are to take to recognize or identify that a release has occurred. Upon recognition that a release has occurred, the emergency coordinator is notified.

G-4e **270.14(b)(7);** **Prevention of Recurrence or Spread of Fires, Explosions, or Releases**
 264.56(e)

All facility employees (with the exception of the Branch Administrators) are trained to respond and assist with cleaning up incidental releases. Response actions may include stopping processes and operations, collection and containing released material, and removing or isolating containers.

G-4e(1) **270.14(b)(7);** **Monitor for Leaks, Pressure Buildup, Gas Generation, or Ruptures of**
 264.56(f) **Released Material**

The facility is designed to be a passive waste management facility. Much of the material handled at the facility is contained in small containers and manually moved from storage to transport. The used parts washer solvents that are unloaded into the drum washer/dumpster unit depend on a pump for transfer to the storage tank. If the power or transfer equipment fails, this operation would be halted. There would be no leaks, pressure build-up, or gas generation due to the halting of operations.

There are pressure/vacuum vents on the top of each tank to limit pressure and vacuum build-up in the tanks. Since the piping is connected to the tanks and valves from the tanks to piping are normally in the open position, the pressure on the piping is also limited.

G-4f **270.14(b)(7);** **Storage, Treatment, and Disposal of Released Material**
 264.56(g)

The treatment, storage, and/or disposal of the recovered waste, contaminated soil, or surface water that results from any release will be managed by Safety-Kleen as expeditiously as possible.

G-4g **270.14(b)(7);** **Incompatible Waste**
 264.56(h)(1)

The emergency coordinator will ensure that in the affected areas of the facility, no substance that may be incompatible with the released material is brought onsite until cleanup procedures are complete.

G-4h **270.14(b)(7);** **Post-Emergency Equipment Management**
 264.56(h)(2)

The emergency coordinator will ensure that, in the affected areas of the facility, all emergency equipment listed in the Contingency Plan is cleaned/decontaminated and fit for its intended use before operations are resumed.

G-4h(1) **270.14(b)(7);** **Notification of Federal, State, and Local Authorities Before Resuming**
 264.56(i) **Operations**

Reference Section G-8.

G-4i **270.14(b)(7);** **Container Spills and Leakage**
 264.52; 264.71

The Contingency Plan describes procedures to be followed when responding to container spills and leaks (reference Exhibit G-1).

G-4j **270.14(b)(7);** **Tank Spills and Leakage**
 264.196(a)
G-4j(1) **270.14(b)(7);** **Stopping Waste**
 264.186(a)

The Contingency Plan describes procedures to be followed when responding to tank spills and leaks (reference Exhibit G-1).

G-4j(2) **270.14(b)(7);** **Removing Waste**
 264.196(b)

The Contingency Plan describes procedures to remove waste within 24-hours after a leak is detected and allow inspection and initiate repair of the tank system.

G-4j(3) **270.14(b)(7);** **Containment of Visible Releases**
 264.196(c)

The Contingency Plan describes procedures to conduct a visual inspection of a release.

G-4j(4) 270.14(b)(7); *Notification Reports*
264.196(d)

Any release to the environment will be reported to the National Response Center and North Dakota Department of Environmental Quality within 24 hours of detection, or as required.

G-4j(5) 270.14(b)(7); *Provision of Secondary Containment, Repair, or Closure*
264.196(e)

Safety-Kleen will satisfy the requirements of paragraphs 40 CFR 264.196(e)(2) through (4) or the tank system will be closed.

G-4k 270.14(b)(7); *Requirements for Surface Impoundments*
264.227

The facility does not operate any surface impoundment. Therefore, this section does not apply.

G-4l 270.14(b)(7); *Requirements for Containment Buildings*
264.227

The facility does not operate any containment buildings. Therefore, this section does not apply.

G-4m 270.14(b)(7); *Requirements for Drip Pads*
264.1101

The facility does not operate any drip pads. Therefore, this section does not apply.

G-5 270.14(b)(7); *Emergency Equipment*
264.52(e)

A list of emergency equipment is located in Exhibit F-7. There is a facility drawing indicating the location of the emergency items in Exhibit F-8.

G-6 270.14(b)(7); *Arrangements with Local Authorities*
264.37; 264.52(c)

Copies of the Contingency Plan and revisions are provided to local authorities and organizations listed on the Emergency Information sheet (Exhibit G-2). Refusal to enter into a coordination agreement will be documented.

G-7 270.14(b)(7); *Evacuation Plan for Facility Personnel*
264.52(f)

The site evacuation plan is shown in Exhibit G-5. Notice of evacuation will be made via the intercom system or by word of mouth.

G-8 **270.14(b)(7);** **Required Report Procedures**
264.56(j)

Safety-Kleen will record the time, date, and details of incidents requiring implementation of the Contingency Plan. Within 15 days of the incident, a written report will be submitted to the appropriate state and local authorities.

G-9 **270.14(b)(7);** **Location and Distribution of the Contingency Plan**
264.53

The Contingency Plan and all revisions to the plan are kept at the facility and regularly updated throughout the operating life of the facility. The Contingency Plan is included as Exhibit G-1. Copies of this document, and any revisions, are provided to local authorities and organizations listed on the Emergency Information sheet (Exhibit G-2).

G-10 **262.262(b)** **Copies of the Contingency Plan**

The Facility's Quick Reference Guide for the Contingency Plan is included as Exhibit G-6.

Section H

Personnel Training

H-1 **270.14(b)(12);** **Outline of Introductory and Continuing Programs**
264.16(a)(1)

A description of the introductory and continuing training programs for facility personnel is in the Training Plan located in Exhibit H-1.

H-1a **270.14(b)(12);** **Job Title/Job Description**
264.16(d)(1),
(d)(2)

All employee regulatory training will be documented. The training record will include job title and typical job description. Example job descriptions are included as Exhibit H-2.

H-1b **270.14(b)(12);** **Description of How Training Will be Designed to Meet Actual Job**
264.16(c)(d)(3) **Tasks**
H-1d **270.14(b)(12);2** **Relevance of Training to Job Position**
64.16(a)(2)

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 effectively respond to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems. All employees receive basic training on hazard awareness and the facility Contingency Plan. The level of training an employee receives is dependent upon the employee's level of involvement in hazardous waste management.

H-1c **270.14(b)(12);** **Training Director**
264.16(a)(2)

The regulatory training program is directed by corporate personnel trained in hazardous waste management procedures.

H-1e **270.14(b)(12);** **Training for Emergency Response**
264.16(a)(3)

Every facility employee is familiar with emergency response and the role appropriate for their level of training. Example, employees may be trained to make emergency contact (phone calls), assisting with evacuation and headcount, assisting with spill response (identifying, containing, cleaning up), or shutdown of operations (primarily ceasing to operate the drum washer/solvent dispensing equipment).

H-2 **270.14(b)(12);** **Maintenance of Training Records/Copy of Personnel Training**
264.16(b)(d)(4)(e) **Documents**

Records of current employees will be kept until facility closure. Some training documentation will be maintained electronically.

Section I

Closure Plans and Financial Requirements

I-1 270.14(b)(13) Closure Plans

GENERAL INFORMATION

This closure plan provides for the closure of the hazardous waste management units (HWMUs) at Safety-Kleen’s Fargo facility.

HWMUs to undergo closure:	Description	Maximum Volume Stored
1. Tank Storage	One (1) 12,000 gallon (nominal) aboveground storage tank and concrete dike area for secondary containment and associated ancillary equipment.	12,000 Gallons
2. Return and Fill Station	One (1) dock structure one (1) drum wet dumpster with a combined of 162 gallons.	162 Gallons
3. Container Storage Area (CSA)	One (1) Container Storage Area (warehouse) approximately 300 square feet with storage capacity of 1,360 gallons	2,400 Gallons
	Maximum Storage Volume	14,562 Gallons

Safety-Kleen has developed this generalized closure plan for decontamination of the HWMUs at the site.

**I-1a 270.14(b)(13); Closure Performance Standard
 264.111**

The Fargo Service Center operates as a storage facility for hazardous wastes. The HWMUs will be closed in accordance with the closure requirements of 40 CFR 264.110 through 40 CFR 264.115. Closure of the facility will be carried out in accordance with the steps outlined in this plan and applicable federal regulations. The closure cost estimate, which is based on a third-party implementing closure, is included in Exhibit I-1. The closure plan and closure cost estimate, as part of the permit, will be kept onsite. Hazardous wastes will be removed or remediated from the facility to a level that is protective of human health and the environment, thereby achieving clean closure and eliminating the need for further maintenance and care. Upon completion of closure activities, the need for post-closure maintenance will be eliminated.

The estimated date of facility closure is 2055.

I-1b **270.14(b)(13);** **Time and Activities Required for Partial Closure and Final Closure**
264.112(b)(1)- **Activities**
264.112(b)(7)

The HWMUs subject to closure are identified in section I-1 (above). This closure plan identifies steps necessary to conduct facility closure, or closure of a unit (partial closure) at any point during its intended life.

Notification And Schedule For Closing

Safety-Kleen will notify the North Dakota Department of Environmental Quality (NDDEQ) in writing of any intent to close the facility at least 45 days before commencing full facility closure.

The following general requirements apply to facility closure:

- As required by CFR 264.113 (b), the closure will be completed within 180 days of the receipt of the final volume of hazardous waste, and/or receipt of Agency approval, or unless an extended closure period is requested and approved by the Agency.
- Upon completion of final closure, Certification of Closure, prepared and certified by both an independent North Dakota registered professional engineer and owner/operator will be submitted to the Agency.
- This section will be amended to reflect any facility modifications, as appropriate. The request for modification and subsequent modified closure plan will be submitted to the Agency for acknowledgement and approval.

Security

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

RCRA Unit Closure Activities

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

Aboveground Tank And Associated Piping

To safely clean and decommission the aboveground storage tank:

- a. Remove the remaining material from the tank and send the materials to a recycle center, reclaimer or other permitted treatment/disposal facility.

- b. Provide access to the tank undergoing closure or decontamination.
- 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 slab. 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.

Opening Of The Tank And Removal Of Waste

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 disposal.
- b. To gain access to aboveground tanks, use the manway 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 manway. Special care will be exercised to minimize spark generation when working on the tank.
- c. Storage tanks are considered permit-required confined spaces (i.e. spaces open or closed having a limited means of egress in which poisonous gases or flammable vapors might accumulate or an oxygen deficiency might occur). Confined space entry will be conducted in accordance with 29 CFR 1910.146. Tank entry procedures will be specified in the site health and safety plan. Personnel performing closure activities must have completed 40-hour OSHA hazardous waste training requirements (29 CFR 1910.120).
- d. Once the tanks have been opened, they must be provided with adequate ventilation. The tanks will then be inspected to determine the approximate quantity and physical conditions of any remaining waste material.

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 and then triple rinsed.
- b. The method used to remove residual waste from the tank will depend on 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 residual waste and wash

water will be managed as hazardous waste and shipped to a recycle center or contract reclaimer. The quantity of wash fluid used will be kept to a minimum in order to limit the amount of waste material.

Removal Of The Tank

To safely remove the tank:

- a. Disconnect all appurtenant piping
- b. Disconnect all appurtenant pumping equipment
- c. If the tank is to be scrapped, the tank and equipment will be removed and recycled in accordance with 40 CFR 261.1(c)(6)-(7). Verification of destruction will be provided by the contractor of the scrap metal facility. If the tank is to be reused following decontamination, the final rinsate will be sampled. The rinsate sample will be analyzed for volatile organic compounds (VOCs). If the total VOC concentration is less than 1 mg/L, the tank will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed.
- d. The concrete diking will be cleaned with a high-pressure water detergent solution followed with a triple rinsing. A sample of the final rinse water from the containment will be collected. The rinsate sample will be analyzed for volatile organic compounds (VOCs). If the total VOC concentration is less than 1 mg/L, the containment will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed. Soil samples beneath the concrete will be collected if based on inspection by a Professional Engineer significant fully-penetrating unsealed cracks are evident in the concrete slab. If soil sampling beneath the concrete is warranted, soil samples will be collected at 2-foot intervals until PID filed headspace screening readings are not elevated. The sample exhibiting the highest PID reading the next sample not exhibiting an elevated PID reading will be submitted for laboratory analysis to define the nature and vertical extent of impacts. If elevated PID readings are not observed, the first sample interval will be submitted for analysis to confirm the soil has not been impacted. All soil samples will be analyzed for volatile organic compounds using method 8260, and characteristic for toxicity due to cadmium, chromium, and lead using TCLP protocol. If analytical results exceed applicable screening criteria, a revised closure plan will be submitted for approval by the Agency to determine the extent of the subsurface impacts. If necessary, a remedial action plan will be developed for Agency approval to ensure the affected area is remediated to levels that are not detrimental to human health and the environment, thereby achieving closure.

Container Storage Area (CSA)

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, used antifreeze, photographic imaging waste, spent industrial fluids, and used oil. 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 sumps will be cleaned with a detergent solution and triple rinsed. A final rinsate sample will be analyzed for volatile organic compounds (VOCs). If the total VOC concentration is less than 1 mg/L, the tank will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed.

All rinsate wastes generated in the container storage area will be transported to a Safety-Kleen Recycle Center or other properly permitted facility for disposal.

Soil samples beneath the concrete will be collected if based on inspection by a Professional Engineer significant fully-penetrating unsealed cracks are evident in the concrete slab. If soil sampling beneath the concrete is warranted, soil samples will be collected at 2-foot intervals until PID filed headspace screening readings are not elevated. The sample exhibiting the highest PID reading the next sample not exhibiting an elevated PID reading will be submitted for laboratory analysis to define the nature and vertical extent of impacts. If elevated PID readings are not observed, the first sample interval will be submitted for analysis to confirm the soil has not been impacted. All soil samples will be analyzed for volatile organic compounds using method 8260, and characteristic for toxicity due to cadmium, chromium, and lead using TCLP protocol. If analytical results exceed applicable screening criteria, a revised closure plan will be submitted for approval by the Agency to determine the extent of the subsurface impacts. If necessary, a remedial action plan will be developed for Agency approval to ensure the affected area is remediated to levels that are not detrimental to human health and the environment, thereby achieving closure.

Solvent Return And Fill Station

The Return and Fill station is used to collect and return used parts cleaner solvent to the 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 washer/wet dumpster will be removed and containerized, labeled, and manifested for proper treatment and/or disposal through a Safety-Kleen recycle center or other properly permitted facility.

The drum washer/wet dumpster and the dock area will be thoroughly rinsed with a detergent solution. A final rinsate sample will be analyzed for volatile organic compounds (VOCs). If the total VOC concentration is less than 1 mg/L, the tank will be considered properly decontaminated. If the results are greater than 1 mg/L, the decontamination procedures will be re-performed.

Soil samples beneath the concrete will be collected if based on inspection by a Professional Engineer significant fully-penetrating unsealed cracks are evident in the concrete slab. If soil sampling beneath the concrete is warranted, soil samples will be collected at 2-foot intervals until PID filed headspace screening readings are not elevated. The sample exhibiting the

highest PID reading the next sample not exhibiting an elevated PID reading will be submitted for laboratory analysis to define the nature and vertical extent of impacts. If elevated PID readings are not observed, the first sample interval will be submitted for analysis to confirm the soil has not been impacted. All soil samples will be analyzed for volatile organic compounds using method 8260, and characteristic for toxicity due to cadmium, chromium, and lead using TCLP protocol. If analytical results exceed applicable screening criteria, a revised closure plan will be submitted for approval by the Agency to determine the extent of the subsurface impacts. If necessary, a remedial action plan will be developed for Agency approval to ensure the affected area is remediated to levels that are not detrimental to human health and the environment, thereby achieving closure.

The structure may be reused by Safety-Kleen or disposed at a properly permitted landfill or as scrap metal. If the structure is to be scrapped, the structure will be removed and recycled in accordance with 40 CFR 261.1(c)(6)-(7). Verification of destruction will be provided by the contractor of the scrap metal facility. The clean drum washers and dock structure may be reused by Safety-Kleen or disposed at a properly permitted landfill or as scrap metal.

I-1c **270.14(b)(13);** **Maximum Waste Inventory**
 264.112(b)(3)

The maximum inventory of hazardous waste that can be stored at the facility at any one time is 14,562 gallons.

I-1d **270.14(b)(13);** **Schedule For Closure**
 264.112(b)(6)
I-1d(1) **270.14(b)(13);** **Time Allowed For Closure**
 264.112(b)(2);
 264.113(a) and (b)

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, unless an extended closure period is requested by Safety-Kleen and approved by the Agency. Safety-Kleen will complete closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of wastes.

I-1d(1)(a) **270.14(b)(13);** **Extension For Closure Time**
 264.113(a) and (b)

Safety-Kleen may petition the Agency for an extension to the closure period to ensure that the facility has achieved clean closure levels that are protective of human health and the environment.

A timeline for the closure schedule is included as Exhibit I-2.

- I-1e** **270.14(b)(13);** **Closure Procedures**
 264.112:
 264.114
- I-1e(1)** **270.14(b)(13);** **Inventory Removal**
 264.112(b)(3)

The NDDEQ will be notified in writing a minimum of 45 days prior to initiation of closure in accordance with 40 CFR 264.112(d). In the first 90 days, once closure is initiated, all current inventories will be removed from the site. As described in section I-1b any waste containers remaining in the CSA will be removed and transported under manifest to a permitted hazardous waste TSDf. The contents of the drums will be treated or disposed of at a permitted TSDf. Any sediment or solvent in the Return and Fill will be containerized similarly shipped to a permitted TSDf or pumped into the used solvent tank. The remaining solvent and any sediment in the used solvent tank will be removed and transported under manifest in containers or a bulk tanker to a permitted hazardous waste TSDf. Closure costs for these activities are based on use of a third party vendor.

- I-1e(2)** **270.14(b)(13);** **Disposal or Decontamination of Equipment, Structure, and Soils**
 264.112(b)(4);
 264.114

Decontamination of Cleanup Equipment

All equipment used for the closure of the facility will be properly decontaminated prior to its reuse. Small consumable equipment (such as PPE, mops, rags, etc.) and their residue that cannot be reused will be transported to a licensed hazardous waste management facility.

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

Soil Sampling Plan

If the results of the inspections for the HWMUs indicate lapses of integrity exist in the secondary containment system(s) that may have allowed the potential for waste to migrate to underlying soils, soil samples will be collected as described in the sections above describing the procedures for individual units. If the inspection indicates no lapses of integrity, soil samples will not be necessary to complete closure.

- I-1e(3)** **270.14(b)(13);** **Closure of Disposal Units/Contingent Closures**
 Through
- I-1e(3)(h)** **270.14(b)(13);** **Freeze/Thaw Effects**
 264.228(a)(2)(ii
 i); 264.310(a)

These sections do not apply to Safety-Kleen's Fargo facility as it does not have a surface impoundment or landfill.

- I-1e(4)** **270.14(b)(13);** **Closure of Containers**
 264.178;
 264.112(b)(3)

At time of closure, all hazardous waste and hazardous waste residues will be removed from the containment systems. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be decontaminated or removed as described above in section I.

- I-1e(5)** **270.14(b)(13);** **Closure of Tanks**
 264.197;
 264.112(b)(3)

At closure of a tank system, Safety-Kleen will remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structure and equipment contaminated with waste, and manage them as hazardous waste, unless 40 CFR 261.3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems will meet all of the requirements specified in 40 CFR 264 subparts G and H and are described elsewhere in this section.

- I-1e(6)** **270.14(b)(13);** **Closure of Disposal Units/Contingent Closures**
 270.18(h);
 264.258
 Through
- I-1e(13)** **270.14(b)(13);** **Closure of Containment Buildings**
 264.1102

These sections do not apply to Safety-Kleen's Fargo facility as it does not have a waste pile, surface impoundment, incinerator, landfill, land treatment unit, miscellaneous unit, boiler, or industrial furnace, or containment building.

- I-2** **270.14(b)(13);** **Post-Closure Plans**
 Through
- I-2g** **270.14(b)(13);** **Post-Closure Contact**
 264.118(b)(3)

These sections on post-closure plans do not apply to Safety-Kleen's Fargo facility as it expects to clean close the facility.

I-3a **270.14(b)(13);** **Certification of Closure**
264.115;
264.280

When closure activities are completed, Safety-Kleen shall submit to the Agency certification, both by the operator and a qualified independent registered professional engineer, that the facility has been closed in accordance with the approved closure plan. The closure certification will be presented in a Closure Certification Report, which will be prepared in accordance with applicable portions of 40 CFR 264.115.

Information contained in the closure report will include a brief site history, site plan, closure field notes, documentation of decontamination procedures, photo-documentation, soil sampling locations (if required), laboratory analytical reports, tabular summaries of analytical results, volumes of wastes removed, copies of waste manifests, etc. Any deviations from the approved closure plan will also be documented in the report. The Closure Certification Report will be submitted within 60 days of completion of the closure activities.

I-3b **270.14(b)(13);** **Survey Plat**
264.116
I-3c **270.14(b)(13);** **Post-Closure Certification**
264.120
I-3d **270.14(b)(13);** **Post-Closure Notices**
270.14(b)(14);
264.119

Survey Plats of land disposal units and Post-Closure do not apply to the Safety-Kleen Fargo facility as it has no land disposal units and expects to clean close the site.

I-4 **270.14(b)(15);** **Closure Cost Estimate**
264.142

The most recent detailed written closure cost estimate in current dollars for closing the facility in accordance with the approved closure plan. The Closure Cost Estimate Worksheet is included as Exhibit I-1. Estimate is based on third party closing facility. Estimate is adjusted for annual inflation as stated in 40 CFR 264.142(b). Estimates do not assume zero cost for hazardous waste handling, and do not incorporate salvage value, facility structures/equipment, land, or other facility assets as offsets. The costs on this worksheet are derived using US EPA's CostPro cost estimating tool.

I-5 **270.14(b)(15);** **Financial Assurance for Closure**
264.143;
264.151

The facility has established financial assurance that covers the closure cost estimate. The closure cost estimate is adjusted annually to reflect inflation, in accordance with and as required by and detailed in 40 CFR 264.142(b) and (c). Safety-Kleen maintains an insurance certificate for closure, as included in Exhibit I-3.

- I-5a** **270.14(b)(15);** **Closure Trust Fund**
 264.143(a);
 264.151(a)(1)
 Through
- I-5g** **270.14(b)(15);** **Use of Multiple Financial Mechanisms For Multiple Facilities**
 264.143(h)

The facility does not have an alternative financial mechanism such as a trust fund. Therefore, these sections do not apply.

- I-6** **270.14(b)(16);** **Post-Closure Cost Estimate**
 264.144

As the facility expects a clean closure this section does not apply.

- I-7** **270.14(b)(16);** **Financial Assurance Mechanism for Post Closure Care**
 264.145; 264.151
 Through
- I-7g** **270.14(b)(16);** **Use of Multiple Financial Mechanism for Multiple Facilities**
 264.145(h)

As the facility expects a clean closure this section does not apply.

- I-8** **270.14(b)(17);** **Liability Requirements**
 264.147
- I-8a** **270.14(b)(17);** **Coverage for Sudden Accidental Occurrences**
 264.147(a)

Coverage for sudden accidental occurrences of at least \$1 million per occurrence with annual aggregate of at least \$2 million is maintained. A copy of the Hazardous Waste Facility Certificate of Liability Insurance is included in Exhibit I-4.

- I-8a(1)** **270.14(b)(17);** **Endorsement of Certification**
 264.147(a)(1)

Safety-Kleen's Hazardous Waste Facility Liability Certificate of Liability wording is essentially identical to 264.151(j). Each insurance policy is issued by an insurer which, at a minimum, 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.

- I-8a(2)** **270.14(b)(17);** **Financial Test and Corporate Guarantee for Liability Coverage**
 264.147(a)(2),
 (f)(g);
 264.151(f)(g)

The facility does not use a Corporate Guarantee for liability coverage. Therefore, this section does not apply.

I-8a(3) ***270.14(b)(17);*** ***Use of Multiple Financial Mechanisms***
264.147(a)(1)

The facility does not use Multiple Financial Mechanism for liability coverage. Therefore, this section does not apply.

I-8b ***270.14(b)(17);*** ***Coverage for Nonsudden Accidental Occurrences***
264.147(b)

Safety-Kleen's Fargo facility does not meet the definition of a high risk storage facility, surface impoundment, land disposal, or land treatment facility. Therefore, the insurance requirements under this section does not apply.

Section J

Solid Waste Management Units

The Fargo facility does not operate Solid Waste Management Units. Therefore, this section does not apply.

Section K

Other Federal Laws

K-1 Wild and Scenic Rivers Act

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition. There are no designated wild & scenic rivers in North Dakota. The nearest designated area is located approximately 205 miles southeast of the facility.

K-2 National Historic Preservation Act of 1966

The National Historic Preservation Act legislation (Public Law 89-665; 16 U.S.C. 470 et. Seq.) is intended to preserve historical and archaeological sites in the U.S. The act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices. Safety-Kleen's Fargo facility is not affected by this Act.

K-3 Endangered Species Act

The facility is located approximately 15 miles from the nearest critical habitat area. This is illustrated in Exhibit B-5.

K-4 Coastal Zone Management Act

The Fargo facility is not located within a designated area under the Coastal Zone Management Act.

K-5 Fish and Wildlife Coordination Act

The Act of March 10, 1934, authorizes the Secretaries of Agriculture and Commerce to provide assistance to and cooperate with Federal and State agencies to protect, rear, stock, and increase the supply of game and fur-bearing animals, as well as to study the effects of domestic sewage, trade wastes, and other polluting substances on wildlife.

The Act also directs the Bureau of Fisheries to use impounded waters for fish-culture stations and migratory-bird resting and nesting areas and requires consultation with the Bureau of Fisheries prior to the construction of any new dams to provide for fish migration. In addition, this Act authorizes the preparation of plans to protect wildlife resources, the completion of wildlife surveys on public lands, and the acceptance by the Federal agencies of funds or lands for related purposes provided that land donations received the consent of the State in which they are located.

The Fargo facility is not in an area regulated under the Fish and Wildlife Coordination Act.

CERTIFICATION OF PERMIT APPLICATION

Fargo, North Dakota

NDD 000 716 738

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.

Mori Sorenson

Name of Applicant



Signature of Applicant

Vice President
Environmental Compliance

Title of Applicant

3-29-23

Date of Certification

Section M

Subpart AA Process Vents

The facility does not conduct distillation, fractionation, thin-film evaporation, solvent extraction, air stripping operations, or steam stripping operations. Therefore, there are no process vents subject to Subpart AA at the facility.

Section N

Subpart BB Equipment Leaks

N-1a **270.14(a); Applicability**
270.25;
264.1050(b)(d)

The used solvent managed in the tank system is presumed to contain hazardous waste with an organic concentration of at least 10-percent by weight, so Subpart BB regulations apply.

N-1b **270.14(a); Definition of Equipment**
270.25;
264.1031;
264.1050(b)(d)

Equipment includes one 10,000 gallon aboveground storage tank with associated piping and a drum washer/wet dumpster with associated piping. The aboveground storage tank is located within the tank farm. The drum washer unit is located at the facility's Return and Fill station. See Exhibit A-2 for a site diagram.

Each valve, pump, and flange associated with the hazardous waste storage tank and drum washer unit is labeled with a numbered tag. A listing of the tag numbers, descriptions of the tagged equipment, and location of each piece of equipment is located on the Used Solvent Piping Schematic at Exhibit D2-8.

Safety-Kleen complies with Subpart BB requirements by inspecting the process piping and equipment each operating day. Each valve, joint, flange, pressure relief device, pump, etc. is inspected to insure the equipment is not leaking and is functioning properly. Open-ended pipes are capped when not in use.

N-1c **270.14(a); Equipment in a vacuum or equipment that contains or contacts**
270.25; **hazardous waste with an organic concentration of at least 10 percent**
264.1050(f) **by weight for a period of less than 300 hours per calendar year is**
excluded from requirements in 264.1052 to 264.1060.

Safety-Kleen is not claiming any equipment exclusion. Therefore, this section does not apply.

N-2a, N-2b, N- 270.25; Equipment in Light Service Monitoring Requirements
2c, N2-d, N- 264.1052(a),(f)
2e

The used parts washer solvent managed in the tank system is a heavy liquid (vapor pressure less than 0.3 kilopascals at 20°C) and has a maximum concentration in the vapor phase of 2,000 ppm. The hazardous waste state at each piece of equipment is liquid. Safety-Kleen's heavy liquid determination is included in Exhibit N-1. Sections N2a-N2e do not apply.

N-3a, N-3b, N-3c, N3-d, N-3e, N-3f, N-3g **270.25(d); 264.1053(b),(i)** **Compressors in Light Liquid Service**

There are no compressors in service. Therefore, these sections do not apply.

N-4a, N-4b, N-4c **270.25(d); 264.1054(a),(c)** **Pressure Relief Devices in Gas/Vapor Service**

There are no pressure relief devices in gas/vapor service. Therefore, these sections do not apply.

N-5a, N-5b **270.25(d); 264.1052(a-b)** **Sampling Connection Systems in Light Liquid Service**

There are no sampling connection systems in service. The parts washer solvent stored by Safety-Kleen is heavy liquid service. Therefore, these sections do not apply.

N-6a, N-6b **270.25(d); 264.1056(a-c)** **Open-ended Valves or Lines**

There are no open-ended valves or lines in service. The parts washer solvent stored by Safety-Kleen is heavy liquid service. Therefore, these sections do not apply.

N-7a, N-7d **270.25(d); 264.1058(a); 264.1063(b)** **Monitoring and Leak Detection**

Compliance with the standard will be achieved through facility inspections. These inspections will be conducted each operating day, typically Monday through Friday. Because the spent parts washer solvent is a heavy liquid, a photo ionizer type instrument will not detect leaks at 10,000 ppm. A leak will be observed based on visual, audible, or olfactory inspection. Records of equipment monitoring and repair are maintained in the operating record. Equipment in question will be tagged with the identification number, date of potential or actual leak, and date of leak confirmation. After a valve has been repaired, it will be visually monitored as part of the daily facility inspection. After two successive months with no leak detection, the identification tag may be removed. For other equipment, such as pumps, the tag may be removed after a successful repair.

N-8c **270.25(d); 264.1058(c); 264.1059** **Leak Repair as Soon as Practicable**

Any leak or potential leak must be repaired as soon as practicable, but at least within 15 days, with the first attempt at repair made no later than 5 days after the leak is detected. The Environmental Compliance Manager will be contacted immediately to arrange for the equipment to be monitored (if required). The piece of equipment in question must be tagged with the

identification number, date of potential leak or actual leak, and date of leak confirmation.

N-8d **270.25(d);** **Any Connector That is Inaccessible or Is Ceramic-Lined**
 264.105

Due to the difficult location of the Subpart BB tag for the emergency pressure relief vent at the top of the tank, daily inspections are not feasible. Therefore, this tagged fitting will be inspected in conjunction with the annual Subpart CC inspection. This inspection includes assessing the fitting for potential leaks, actual leaks, sticking, wear, and unusual odors.

N-9 **270.25(d);** **Specific Allowances for Delay of Repair for Various Types of**
 264.1059 **Equipment**

It is not anticipated delay of repair would occur at the facility. If repairs cannot be made as described in N-8c (above), notification will be made to the North Dakota Department of Environmental Quality. If repairs are not made within the 15 day period, a report will be kept in the facility operating record listing the equipment ID number, the date evidence of a potential leak was found, the date the leak was found and the dates of each attempt to repair the leak, repair methods applied in each attempt to repair the leak. Repair delayed – if a leak is not repaired within 15 calendar days after discovery of the leak, provide documentation supporting the delay of repair in accordance with 33-24-05-429.4 NDAC, the signature of the owner or operator (or designate) whose decision it was that the repair could not be effected without a hazardous waste management unit shutdown, expected date of successful repair if leak is not repaired within 15 calendar days, and the successful date of leak repair. A semiannual report will be sent to the Department if this situation arises.

N-9; N-10, N-11, N-12 **270.25(d);**
 264.1060;
 264.1061;
 264.1062

These sections do not apply.

N-13 **270.25(a);** **Recordkeeping Requirements**
 270.25(b);
 270.25(c)

Leak detection monitoring and repair records are maintained. Records of equipment monitoring and repair are maintained on an inspection form in the operating records. This leak detection and repair report will be available at the facility.

N-13a, N-13B, N-13c **270.25(a);** **Semiannual Report**
 270.25(b); **Implementation Schedule**
 270.25(c) **Performance Test Plan**

These sections do not apply.

Section O

Subpart CC Air Emission Standards

- O-1** **270.14(a);** **Standards That Apply to All Facilities That Treat, Store, or Dispose of**
270.27; **Hazardous Waste in Tanks, Surface Impoundments, or Containers**
264.1080(a)-(d)

Safety-Kleen's Fargo facility shall control air pollutant emissions from waste management units pursuant to the requirements of RCRA Subpart CC through implementation of this compliance program.

The plan describes the facility's waste determination procedures, tanks and container design and management practices, organic emission controls, inspection and monitoring, recordkeeping and reporting, pursuant to standards promulgated under RCRA Subpart CC.

- O-2** **270.14(a);** **List of Units Exempt from the 264.108-264.1087 Standards**
270.27;
264.1082(c)

There is no tank, surface impoundment, or container exempt from Subpart CC standards. Therefore, this section does not apply.

- O-2a** **270.14(a);** **Waste Determination Procedures**
O-2b **270.27;**
264.1080(c)-(1)

For purposes of waste determination, this facility utilizes knowledge developed in the Waste Characteristics portion of the site's hazardous waste permit. Please see Section C-2 for details on the Waste Analysis Plan and the Annual Recharacterization process. In addition, the facility may use generators' knowledge of the waste based on information included in manifests, shipping papers, or waste certification notices or the ultimate receiving facility. For those hazardous wastes which are managed on a transfer basis and are not described in the Operation Plan/Permit, the Subpart CC regulation does not apply.

Based upon this knowledge, it has been determined that all wastes managed in tanks or containers at this 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 containers at this facility shall be managed in accordance with the applicable Subpart CC standards. Under such a management scenario, no direct measurements will be conducted. This is consistent with 40 CFR 265.1084(a)(1).

The point of waste origination for all wastes generated from off-site sources and transported to the facility in DOT approved containers (if required by DOT regulation) which are subsequently managed in tanks or containers on-site, is the boundary at the entrance gate.

O-2c **270.14(a);** **Tank Used for Biological Treatment of Hazardous Waste**
 270.27;
 264.1082(c)(3)

There is no tank used for biological treatment of hazardous waste to destroy or degrade the organics contained in the hazardous waste. Therefore, this section does not apply.

O-2d **270.14(a);** **Tank, Surface Impoundment, or Container for Which All hazardous**
 270.27; **Waste Placed in the Unit Meets Applicable Organic Concentration**
 264.1082(c)(4) **Limits**

The facility does not land dispose of any wastes at the facility. Therefore, this section does not apply.

O-2e **270.14(a);** **Tank Located Inside an Enclosure Vented to a Control Device**
 270.27;
 264.1082(c)(5)

The facility does not feed hazardous waste to a waste incinerator. Therefore, this section does not apply.

O-3 **270.14(a);** **Waste Determination Procedures to Demonstrate Subpart CC**
 270.27; **Exemptions**
 264.1083;
 264.1084

The facility is not claiming Subpart CC exemptions. Therefore, this section does not apply.

O-4 **270.14(a); 270.27;** **Tank Level 1 Conditions**
 264.1084(b)(1),(2)

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

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

O-5 **270.14(a);** **The Conditions at 264.1084(b)(1)(i-ii) Provide that Hazardous Waste in**
 270.27; **the Tank Shall:**
 264.1084(b)(1)

O-5a(1) **270.14(a);** **Have Maximum Organic Vapor Pressure Which is Less Than**
 270.27; **Maximum Organic Vapor Pressure Limit the Tank's Design Capacity**
 264.1084(b)(1)(i) **Category**

The hazardous waste storage tank stores spent mineral spirits solvent. Vapor pressure testing performed on this material in product form identifies the vapor pressure is .004 psia at 68°F (Safety-Kleen 150 Mineral spirits). The material has a vapor pressure that is significantly lower

than the maximum threshold of 11.26 psia for Level 1 tanks. The hazardous waste storage tank has a capacity of 12,000 gallons which is 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.

O-5a(2) **270.14(a);** ***Not Be Heated to Temperature Greater Than Temperature at Which***
270.27; ***Maximum Organic Vapor Pressure of Waste is Determined***
264.1084(b)(1)(ii)

The hazardous waste in the tank is not heated. Therefore, this section does not apply.

O-5a(3) **270.14(a); 270.27;** ***Not Be Treated Using a Waste Stabilization Process***
264.1084(b)(1)(iii)

The hazardous waste in the tank is not treated using a waste stabilization process. Therefore, this section does not apply.

O-5b **270.14(a);** ***Maximum Organic Vapor Pressure Determination***
270.27;
264.1084(c)(1)

Safety-Kleen will manage organic wastes at the Service Center in the spent mineral spirits storage tank. The waste tank will manage hazardous waste with 500 ppmw greater VO concentration. 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 the tank is =0.2mm-Hg. The maximum organic vapor pressure is determined using knowledge of the waste pursuant to 265.1084(c)(4). Therefore, this tank is subject to Level 1 controls. While there are other storage tanks at the facility, they are not used to store hazardous waste and therefore are exempt from regulation under Subpart CC.

O-5b(1) **270.14(a);** ***Owner/Operator Shall Equip Tanks with Fixed Roof and Closure***
270.27; ***Devices as Needed***
264.1084(c)(2)(3)

The waste storage tank is a fixed roof tank. There are no visible spaces between roof section joints or between interface of roof edge and tank wall. All tanks at the facility 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.

O-5b(2)(i) **270.14(a);** ***Level 2 Tank Requirements***
O-5b(2)(ii) **264.1084(d)(1)-(3)**
O-5b(3)
O-5c
O-5d

The waste storage tank is not a Level 2 tank. Therefore, these sections do not apply.

O-5e **270.14(a); 270.27; 264.1084(c)(1), (3)** **Level 1 Tank Owner/Operator Shall:**
O-5e(1) **270.14(a); 270.27; 264.1084(c)(3)** **Determine Maximum Organic Vapor**

The maximum VO concentration has been determined pursuant to 264.1083(c) procedures.

O-5e(2) **270.14(a); 270.27; 264.1084(c)(3)** **Owners/Operator Shall Equip Tanks With Fixed Roof and Closure Devices as Needed**

The used mineral spirits tank is a 12,000 gallon non-pressurized horizontal aboveground storage tank. It is constructed with a fixed roof. The tank is 10'6" diameter and 18'1" high. The tank is constructed of 3/16" carbon steel (1/4" thick in the lower third of the tank) that is painted white to reflect sunlight and minimize corrosion. The tank is constructed in accordance with Underwriters Laboratories Standard 142.

The tank present at this Service Center is 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 tank is 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 in the closed position. These tanks have a Morrison 548 3-inch pressure vacuum. In addition, these tanks are designed with a pressure relief device which remains in the closed position when not in use to relieve pressure.

O-5e(3) **270.14(a); 270.27; 264.1084(c)(4)** **Owners/Operator Shall Inspect Tanks With Fixed Roof and Closure Devices as Needed**

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 regular inspection.

O-5f, O-5(f)(1); O-5(f)(2); O-5(f)(3); O-5(f)(4); O-5(f)(6) **270.14(a); 270.27; 264.1084(e)** **Tank Level 2 Requirements**

The waste storage tank is not a Level 2 tank. Therefore, these sections do not apply.

**O-6 through O-7 270.14(a); Standards: Surface Impoundments
270.27;
264.1085**

The facility does not operate a surface impoundment. Therefore, these sections do not apply.

**O-8a; O-8a(1); 270.14(a); 270.27; Container Level 1 Standards
O-8a(2) 264.1086(b)(1)(i);
264.1086(b)(1)(ii)**

Containers managing hazardous wastes generally fall into three categories.

1. Hazardous waste containers less than 26 gallons in capacity are wholly exempt from regulation on 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 119 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 greater than 119 gallons that manage hazardous wastes at this facility are not in light service and are Level 1 covered containers designated and operated with no gaps, holes, cracks, or other open spaces into the container.

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

Level	Volume	Usage	Requirements
Level 1	<25 gallons but ≤ 119 gallons Or >119 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 when transferring -Remediate defective containers within 5 days, initiate within 24 hours

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.

Level 1 containers typically received and managed by this facility include, but are not limited to 5-, 15-, 30-, 55-, 250-, or 330-gallon containers. These containers typically meet applicable U.S. DOT specifications and/or authorizations. Therefore these containers are acceptable for use in accordance with Level 1 controls. Containers greater than 26 gallons managing site-

generated hazardous waste will be visually inspected upon their initial filling and within one year if the container is not completely emptied of its contents.

Inspections

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.

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.

Monitoring

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.

Transferring Hazardous Waste

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 12,000 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.

O-8b **270.14(a); 270.27; 264.1086(b)(1)(iii)** **Container Level 2 Standards**

The facility does not manage Level 2 containers. Therefore, this section does not apply.

O-8c **270.14(a); 270.27; 264.1086(b)(2)** **Container Level 3 Standards**

The facility does not manage Level 3 containers. Therefore, this section does not apply.

O-9a Through O-9a(2)(3) **270.14(a); 270.27; 264.1086(c)** **Container Level 1 Standards-Container Equipped with Cover and Closure Devices; Open-Top Container Equipped with Organic-Vapor Suppressing Barrier**

Reference Section O-8 above for narrative.

O-9b Through O-9b(3) **270.14(a); 270.27; 264.1086(d)** **Container Level 2 Standards**

The facility does not manage Level 2 containers. Therefore, this section does not apply.

O-9c Through O-9c(2) **270.14(a); 270.27; 264.1086(e)** **Container Level 3 Standards**

The facility does not manage Level 3 containers. Therefore, this section does not apply.

O-10a **270.14(a); 270.27; 264.1086(c)(3)(4)** **Container Level 1 Standards**

Reference Section O-8 above for narrative.

O-10c **270.14(a); 270.27; 264.1086(e)(3)(5)** **Container Level 3 Standards**

The facility does not manage Level 3 containers. Therefore, this section does not apply.

O-11a Through O-14c **270.14(a); 270.27; 264.1087 Through 264.1090** **Closed-Vent Systems and Control Devices Inspection and Monitoring Requirements
Recordkeeping Requirements
Reporting Requirements**

These sections do not apply.

Section P

Manifest, Recordkeeping, and Reporting Requirements

P-1 264.70 *Applicability of Manifest, Recordkeeping, and Reporting Requirements*

P-1a 264.71 *Use of Manifest System*
NDAC 33-24-05-38

Safety-Kleen's Fargo facility complies with the manifest requirements of 40 CFR 264.71, 264.72, 264.76, and NDAC 33-24-05-38 by requiring a uniform hazardous waste manifest from off-site sources and managing as required; including signing, dating, noting any discrepancies, sending a copy of the manifest to the generator within 30 days of receipt of the waste, and retaining a copy of each manifest for at least three years from the date delivery. Manifest retention may be accomplished through use of a scanning database or retention of paper copies.

P-1b 264.72 *Manifest Discrepancies*
NDAC 33-24-05-39

Safety-Kleen's Fargo facility complies with 40 CFR 264.72 and NDAC 33-24-35-39 if there are any significant differences between the quantity or type of hazardous waste designated on the manifest, and the quantity and type of hazardous waste a facility actually receives.

P-2 264.73 *Operating Record*
NDAC 33-24-05-40

Safety-Kleen maintains a written operating record at the facility. This record consists of numerous documents, some which are retained on an electronic database maintained by the corporation.

P-3 264.74 *Availability, Retention, and Disposition of Records*
NDAC 33-24-05-41

Safety-Kleen's operating records are available by documents maintained at the facility or are available on an electronic database maintained by the corporation.

P-4 264.75 *Biennial Report*
NDAC 33-24-05-42

Safety-Kleen submits a Biennial Report as required by 40 CFR 264.75 and NDAC 33-24-05-42.

P-5 264.76 *Unmanifested Waste Report*
NDAC 33-24-05-43

Safety-Kleen shall submit an unmanifested waste report if it accepts hazardous waste for storage from an off-site source without an accompanying manifest.

Exhibit A-1

Part A Application

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 $\geq 1,000$ kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in one or more months of the reporting year (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 type="checkbox"/>	Submitting a new or revised Part A (permit) Form

2. Site EPA ID Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

3. Site Name

--

4. Site Location Address

Street Address		
City, Town, or Village		County
State	Country	Zip Code
Latitude 46° 52' 28" N	Longitude 96° 48' 20" W	<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

<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
----------------------------------	---------------------------------	-----------------------------------	----------------------------------	---------------------------------	------------------------------------	--------------------------------	--------------------------------

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	C.
B.	D.

EPA ID Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

8. Site Contact Information

Same as Location Address

First Name	MI	Last Name
Title		
Street Address		
City, Town, or Village		
State	Country	Zip Code
Email		
Phone	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

Same as Location Address

Full Name	Date Became Owner (mm/dd/yyyy)
Owner 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	

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 type="checkbox"/> Y	<input type="checkbox"/> N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
<input 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 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 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 type="checkbox"/> Y	<input type="checkbox"/> N	4. Receives Hazardous Waste from Off-site	
<input type="checkbox"/> Y	<input type="checkbox"/> N	5 Recycler of Hazardous Waste	
<input type="checkbox"/>	<input type="checkbox"/>	a. Recycler who stores prior to recycling	
<input type="checkbox"/>	<input type="checkbox"/>	b. Recycler who does not store prior to recycling	
<input type="checkbox"/> Y	<input type="checkbox"/> N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
<input type="checkbox"/>	<input type="checkbox"/>	a. Small Quantity On-site Burner Exemption	
<input type="checkbox"/>	<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.

F002 F003 F005

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 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 type="checkbox"/> N	2. Underground Injection Control
<input type="checkbox"/> Y <input type="checkbox"/> N	3. United States Importer of Hazardous Waste
<input type="checkbox"/> Y <input 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 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 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 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 type="checkbox"/> Y <input type="checkbox"/> N	1. Used Oil Transporter—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 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 type="checkbox"/> N	3. Off-Specification Used Oil Burner
<input type="checkbox"/> Y <input 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 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 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 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 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 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 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 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)	

16. Notification of Hazardous Secondary Material (HSM) Activity

<input type="checkbox"/> Y <input checked="" type="checkbox"/> 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.
--	---

17. Electronic Manifest Broker

<input type="checkbox"/> Y <input checked="" type="checkbox"/> 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?
--	--

18. Comments (include item number for each comment)

19. 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 <i>Mori Sorenson</i>	Date (mm/dd/yyyy) <i>3/29/2023</i>
Printed Name (First, Middle Initial Last) Mori 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	

EPA ID Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

United States Environmental Protection Agency
HAZARDOUS WASTE PERMIT PART A FORM



1. Facility Permit Contact

First Name	MI	Last Name
Title		
Email		
Phone	Ext	Fax

2. Facility Permit Contact Mailing Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

3. Facility Existence Date (mm/dd/yyyy)

--

4. Other Environmental Permits

A. Permit Type	B. Permit Number												C. Description		

5. Nature of Business

--

EPA ID Number

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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		

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)

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

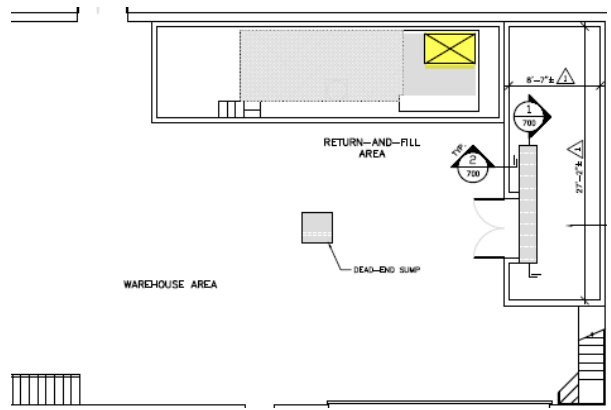
--



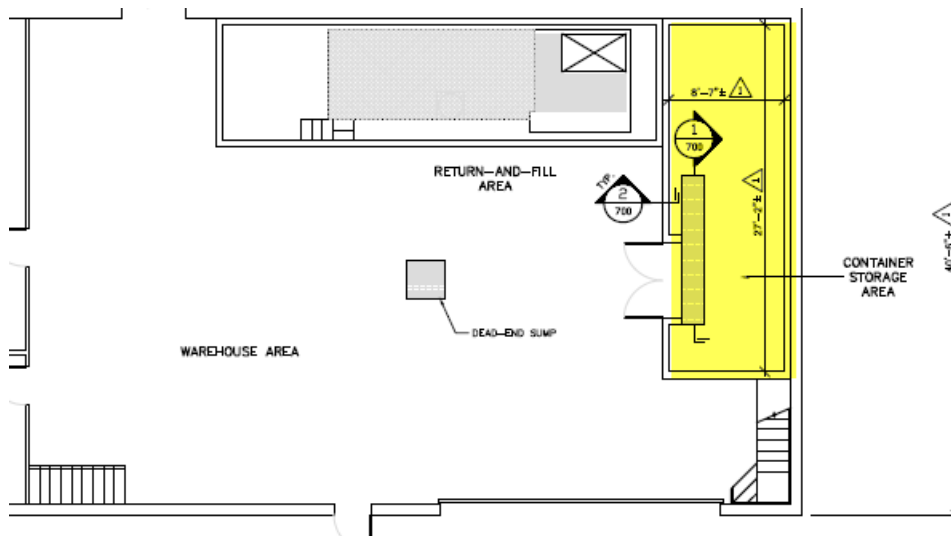
Return And Fill / Drum Washer Area



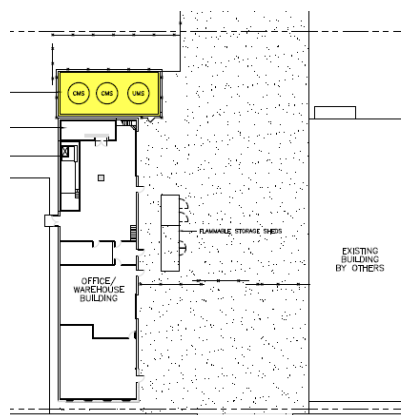
Drum Washer
(Wet Dumpster)

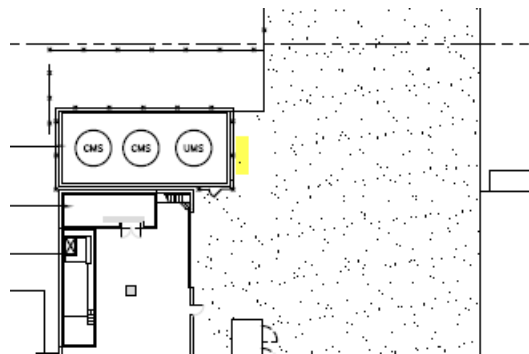


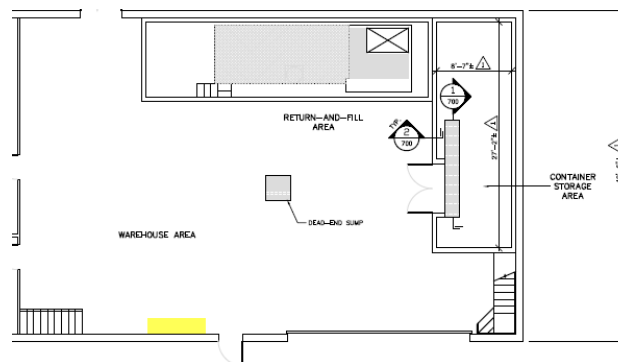
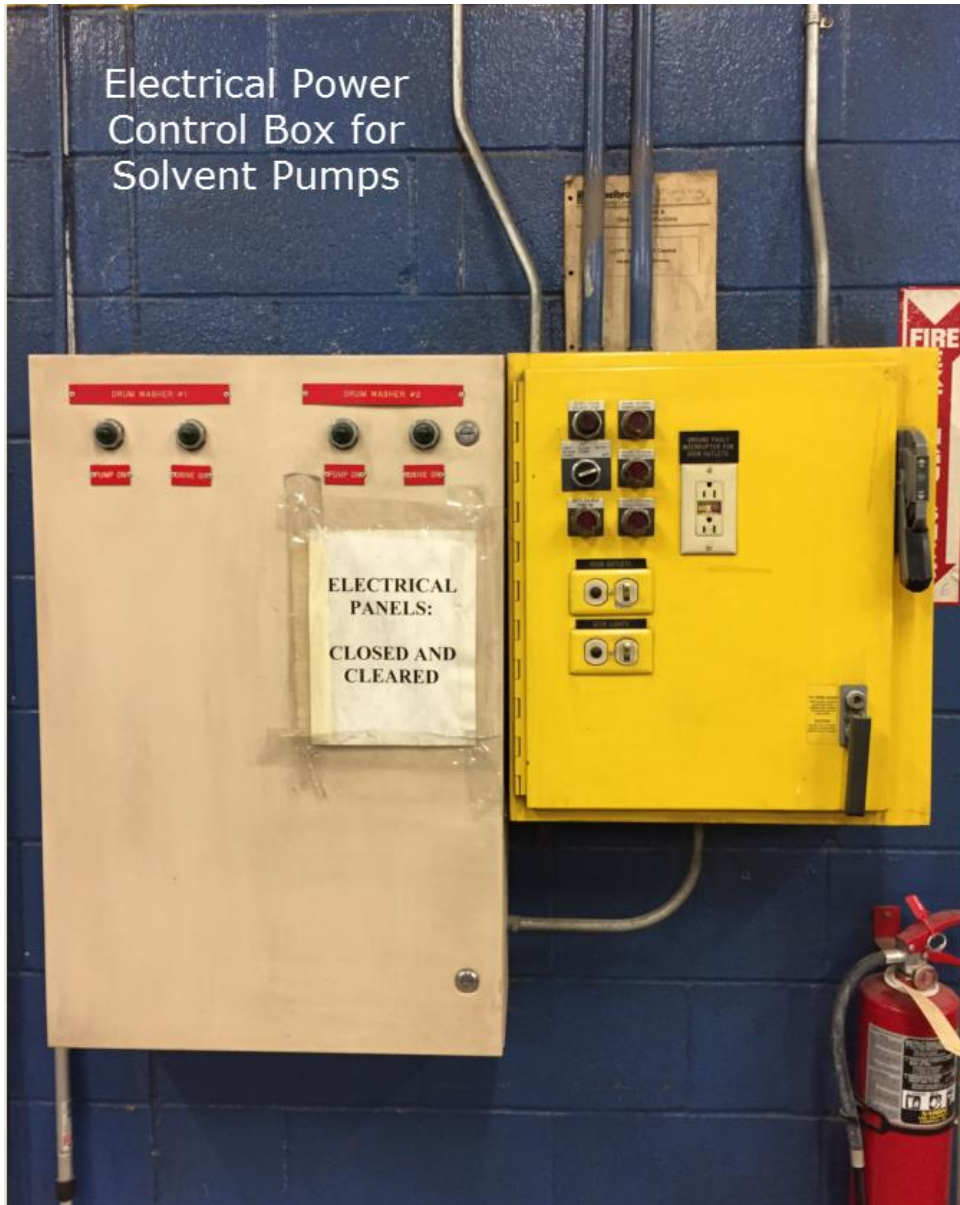
Container Storage Area (CSA)



Used Solvent Tank / Tank Farm







Flammable Storage Sheds
Transfer Waste / Product Storage

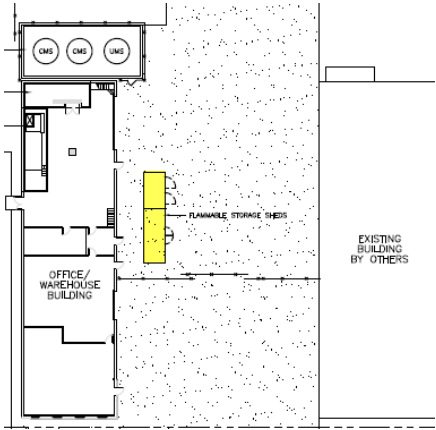
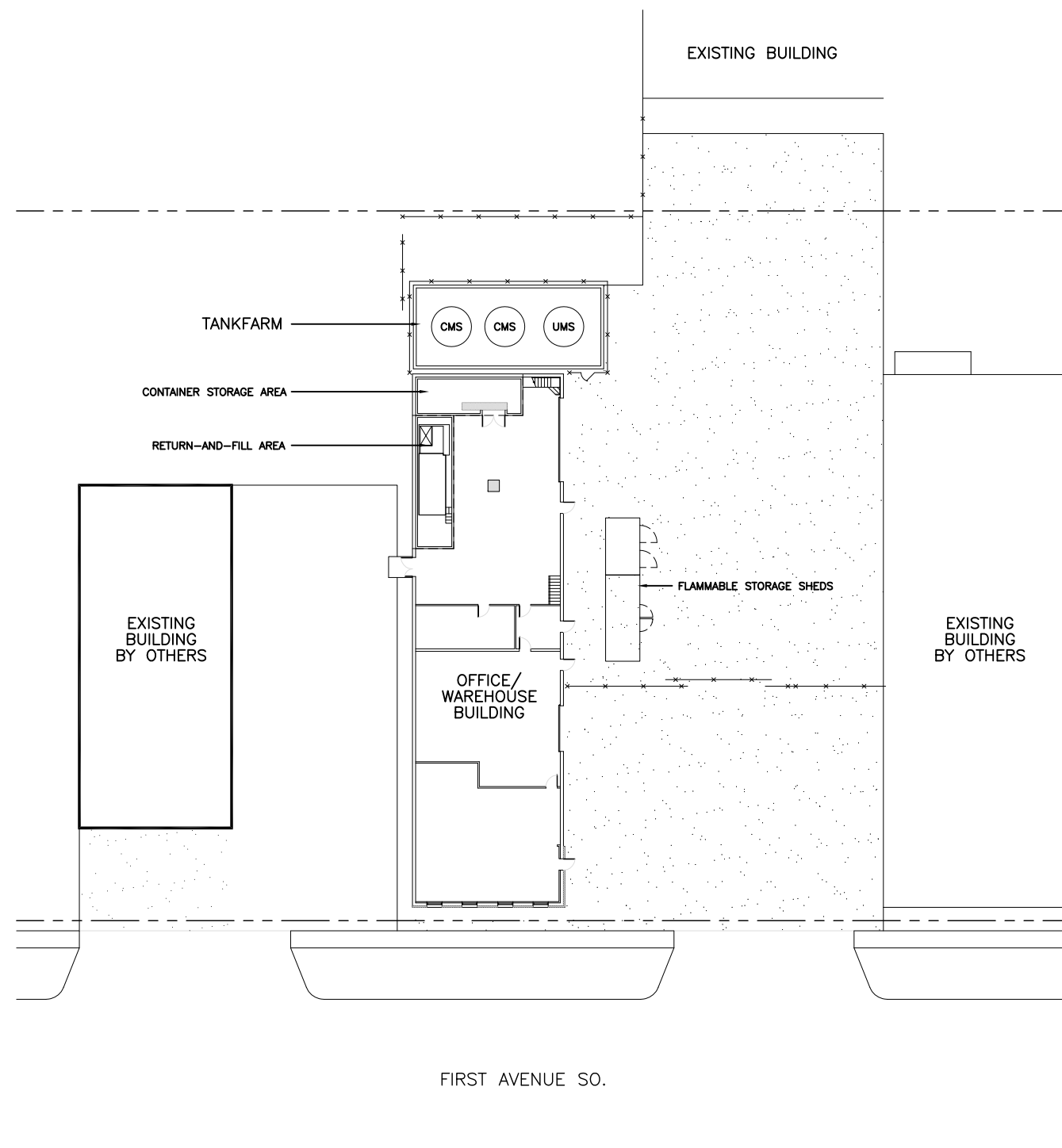


Exhibit A-2

Facility Site Plan



SITE PLAN

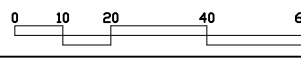


Exhibit A-2

LEGAL SITE DESCRIPTION

"LOT A AUDITOR'S SUBDIVISION OF LOT 4 BLOCK 2 AND THE SOUTH 180 FEET OF LOT B, AUDITOR'S SUBDIVISION OF LOT 4 BLOCK 2 AND THE WEST 24 FEET OF LOT D, AUDITOR'S SUBDIVISION OF LOT 5 BLOCK 2 FULLER'S ADDITION TO THE CITY OF FARGO, CASS COUNTY N.D."

GENERAL NOTES

1. SITE DETAILS AS INDICATED WERE FIELD VERIFIED ON 3/27/23.
2. NON-PERMITTED AREAS MAY CHANGE.
3. APPROXIMATE NORTH AND SOUTH PROPERTY LINES ESTABLISHED FROM S-K DRAWING NO. D12596 DATED 6-1-87.

LEGEND

- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FUT - FUTURE TANK

INDICATES PERMITTED STORAGE AREA

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

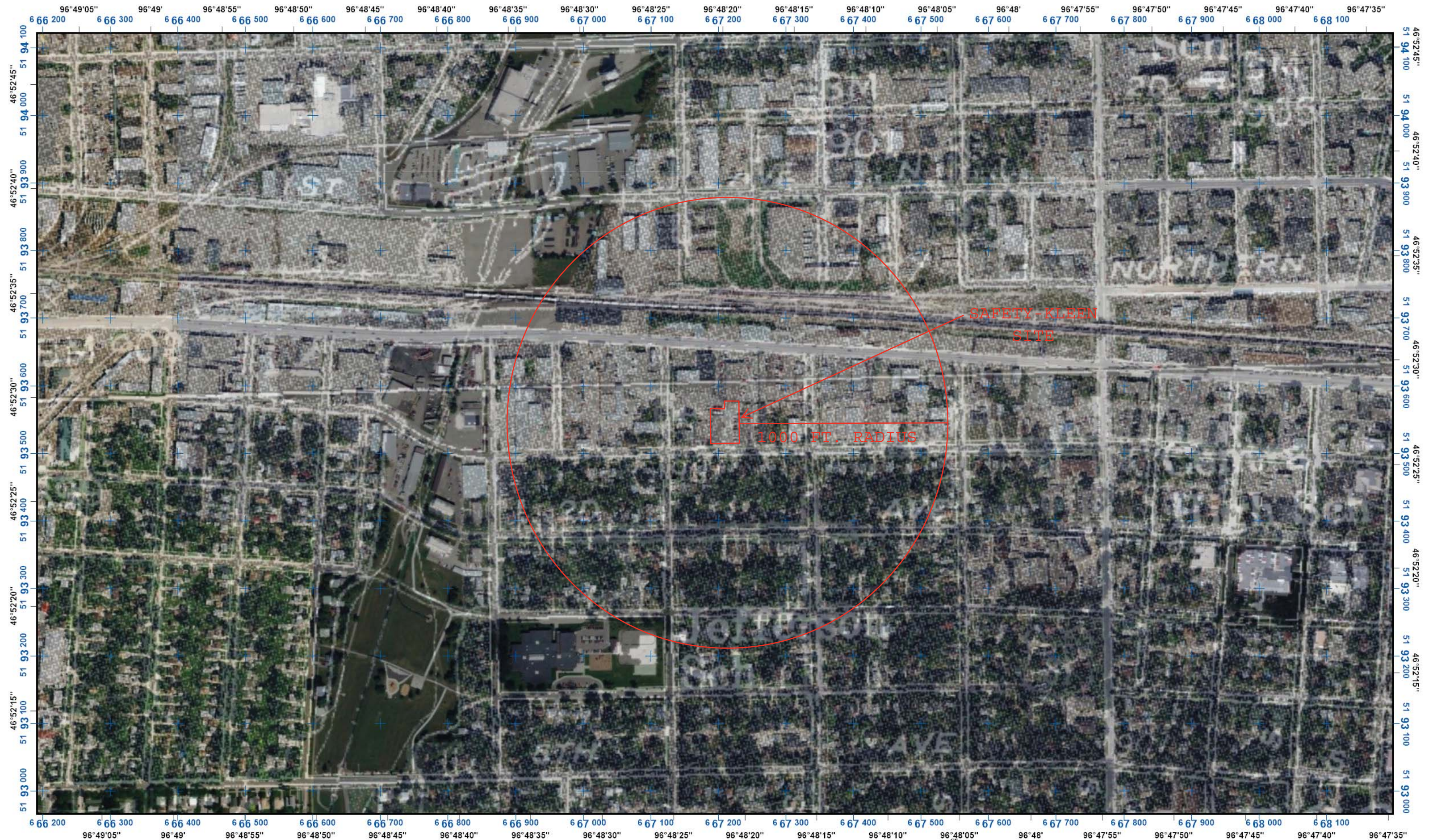
TITLE
**EXISTING
 SITE PLAN**
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723					
0	ISSUED FOR PERMIT	JEK	KT	KT	051717	SCALE AS SHOWN	BY CMA	CHKD RAB	APPROVED	OPERATIONS
NO.	DESCRIPTION	BY	CHK	APPR	DATE	SERVICE CENTER LOCATION	SC-DWG. NO.	DATE	REV. NO.	
	REVISIONS					FARGO, ND.	7122-SP00-001	3-3-95	A	

Exhibit B-1

Topographic Map
Showing 1,000 Foot Radius



SAFETY-KLEEN
SITE

1000 FT. RADIUS

Universal Transverse Mercator (UTM) Projection Zone 14
North American Datum of 1983
100 meter UTM / USNG / MGRS
Grid Zone Designation: 14T
100,000-m Squares PS

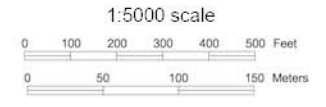
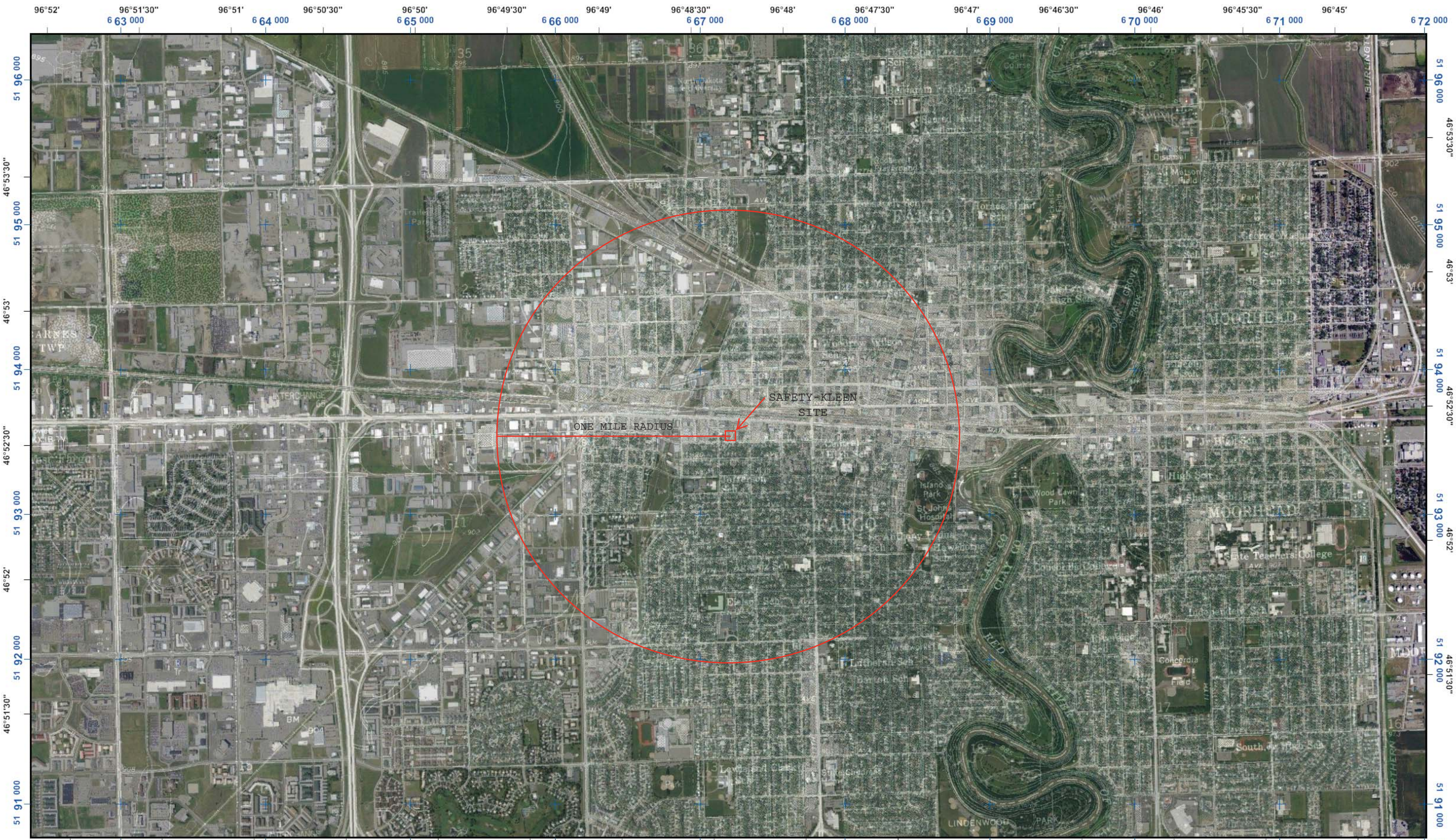
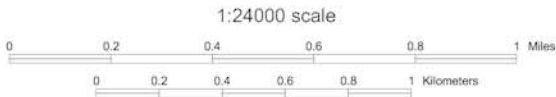


Exhibit B-2

Topographic Map
Showing 1 Mile Radius



Universal Transverse Mercator (UTM) Projection Zone 14
 North American Datum of 1983
 1000 meter UTM / USNG / MGRS
 Grid Zone Designation: 14T
 100,000-m Squares:PS



SAFETY-KLEEN AERIAL MAP
 FARGO, N.D. 58301
 DWG# 7122-SPOO-024

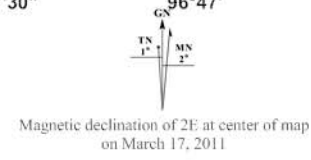


Exhibit B-3

Flood Plain Map (FEMA/FIRM)

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only to landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 14. The horizontal datum was NAD83, CRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSM-C-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided by the Cass County GIS Department. Transportation data is current as of 2013. Political boundaries are current as of 2012.

This map may reflect more detailed or up to date stream channel configurations than those shown on the previous FIRM. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations and improved topographic data. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

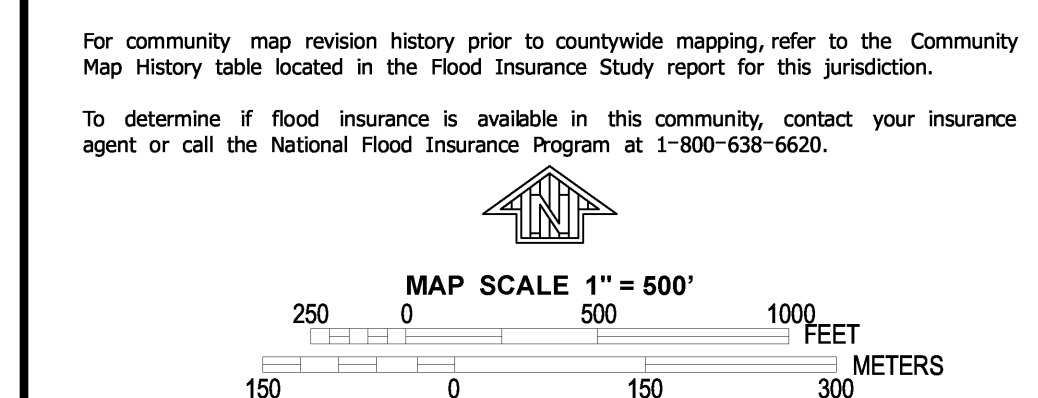
For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-636-2627) or visit the **FEMA Map Service Center** website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.

Provisionally Accredited Levee Notes to Users: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations by May 15, 2013. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicate the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A**
No Base Flood Elevations determined.
- ZONE AE**
Base Flood Elevations determined.
- ZONE AH**
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO**
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR**
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently de-certified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99**
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V**
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE**
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X**
Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE X**
Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D**
Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*
- * Referenced to the North American Vertical Datum of 1988 (NAVD 88)
- Cross section line
- Transsect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid ticks, zone 14
- 5000-foot grid ticks: North Dakota State Plane coordinate system, south zone (FIPSZONE 3302), Lambert Conformal Conic
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORIES
Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
January 16, 2015
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0781G

FIRM
FLOOD INSURANCE RATE MAP
CASS COUNTY,
NORTH DAKOTA
(ALL JURISDICTIONS)

PANEL 781 OF 995
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FARGO, CITY OF	385364	0781	G

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
38017C0781G

EFFECTIVE DATE
JANUARY 16, 2015

Federal Emergency Management Agency

Exhibit B-4

U.S Fish & Wildlife – Wetlands Map



March 15, 2023

Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Other
- Freshwater Pond
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Exhibit B-5

U.S Fish & Wildlife – Critical Habitats Map

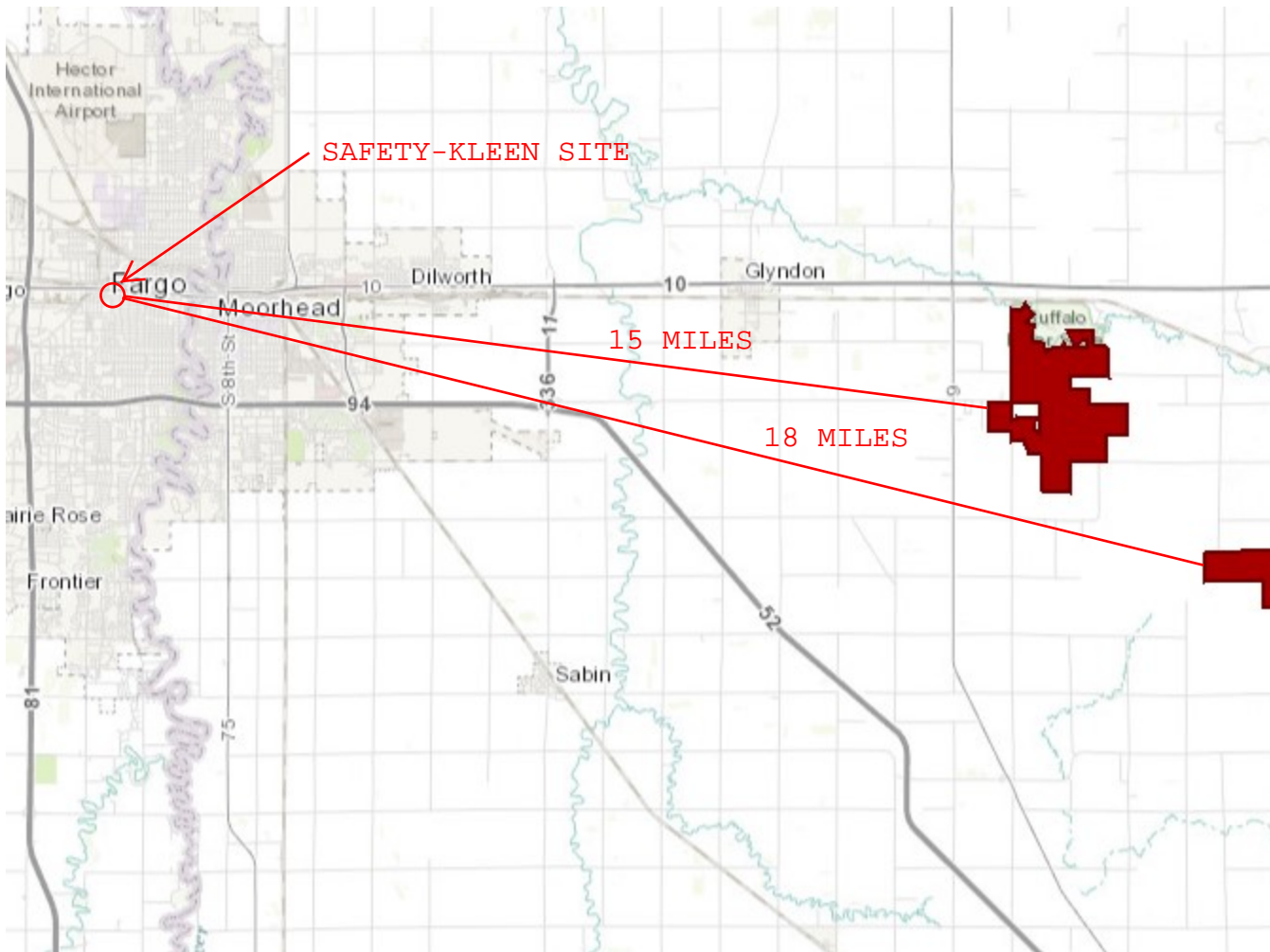


Exhibit B-6

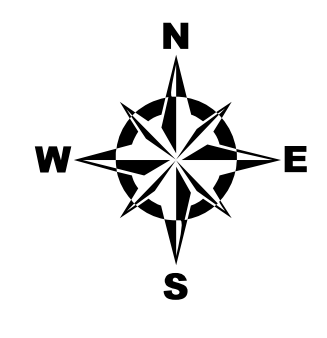
City of Fargo Area Zoning Map

CITY OF FARGO

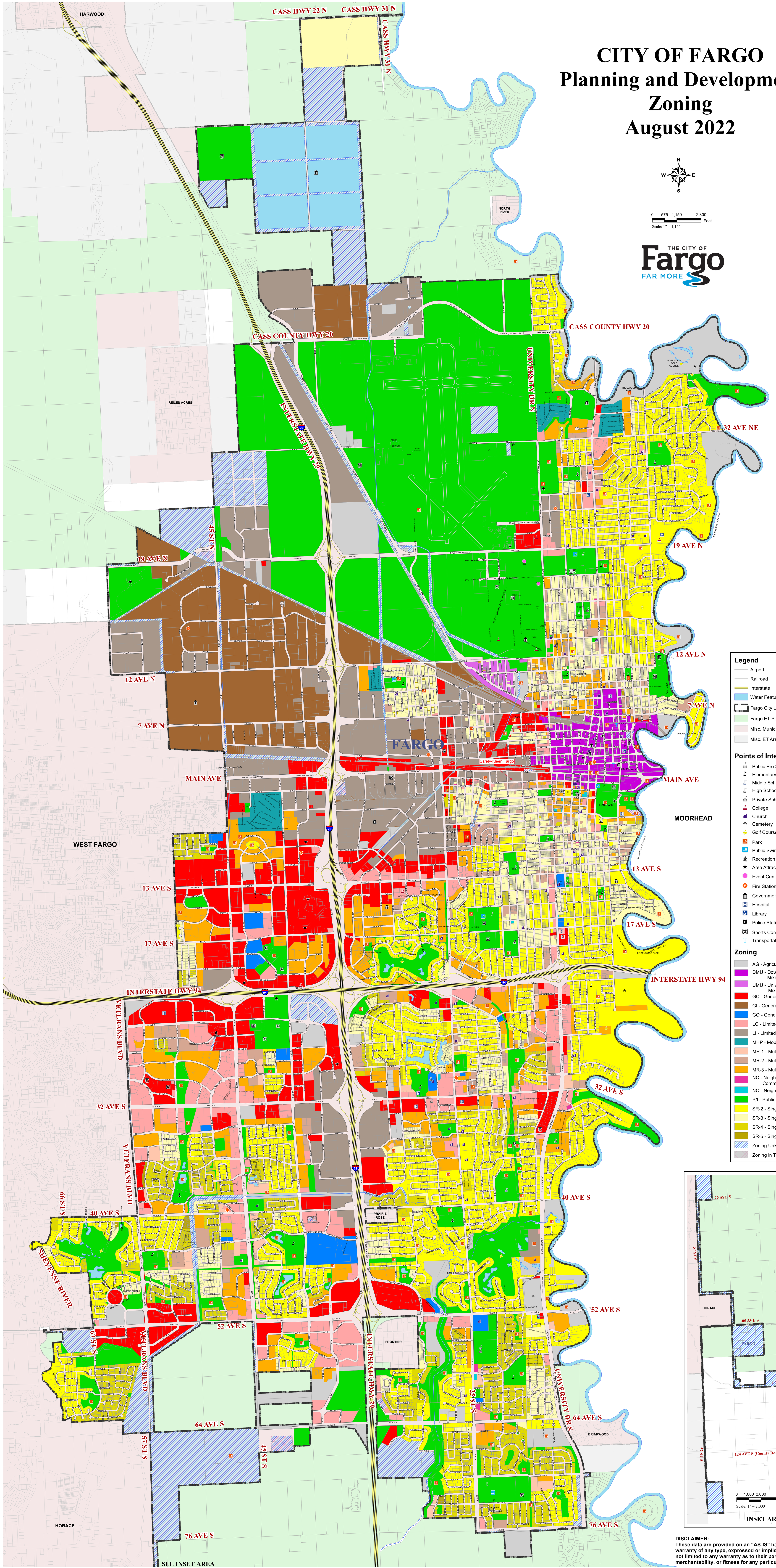
Planning and Development

Zoning

August 2022



0 575 1150 2300
Feet
Scale: 1" = 1,155'



Legend

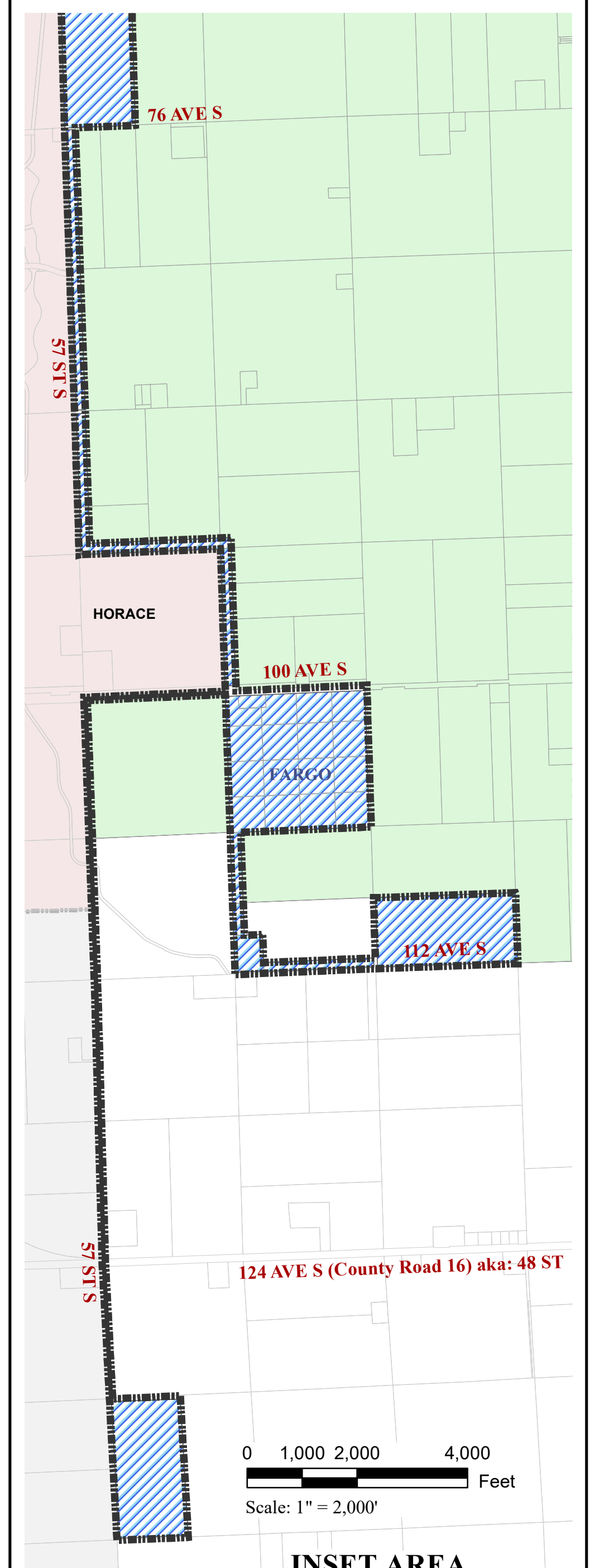
- Airport
- Railroad
- Interstate
- Water Feature
- Fargo City Limit
- Fargo ET Parcels
- Misc. Municipalities
- Misc. ET Area

Points of Interest

- Public Pre School
- Elementary School
- Middle School
- High School
- Private School
- College
- Church
- Cemetery
- Golf Course
- Park
- Public Swimming Pool
- Recreation Trail
- Area Attraction
- Event Center
- Fire Station
- Government Building
- Hospital
- Library
- Police Station
- Sports Complex
- Transportation

Zoning

- AG - Agricultural
- DMU - Downtown Mixed Use
- UMU - University Mixed Use
- GC - General Commercial
- GI - General Industrial
- GO - General Office
- LC - Limited Commercial
- LI - Limited Industrial
- MHP - Mobile Home Park
- MR-1 - Multiple Dwelling
- MR-2 - Multiple Dwelling
- MR-3 - Multiple Dwelling
- NC - Neighborhood Commercial
- NO - Neighborhood Office
- PI - Public Institutional
- SR-2 - Single Dwelling
- SR-3 - Single Dwelling
- SR-4 - Single Dwelling
- SR-5 - Single Dwelling
- Zoning Unknown
- Zoning in Transition



DISCLAIMER:
These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

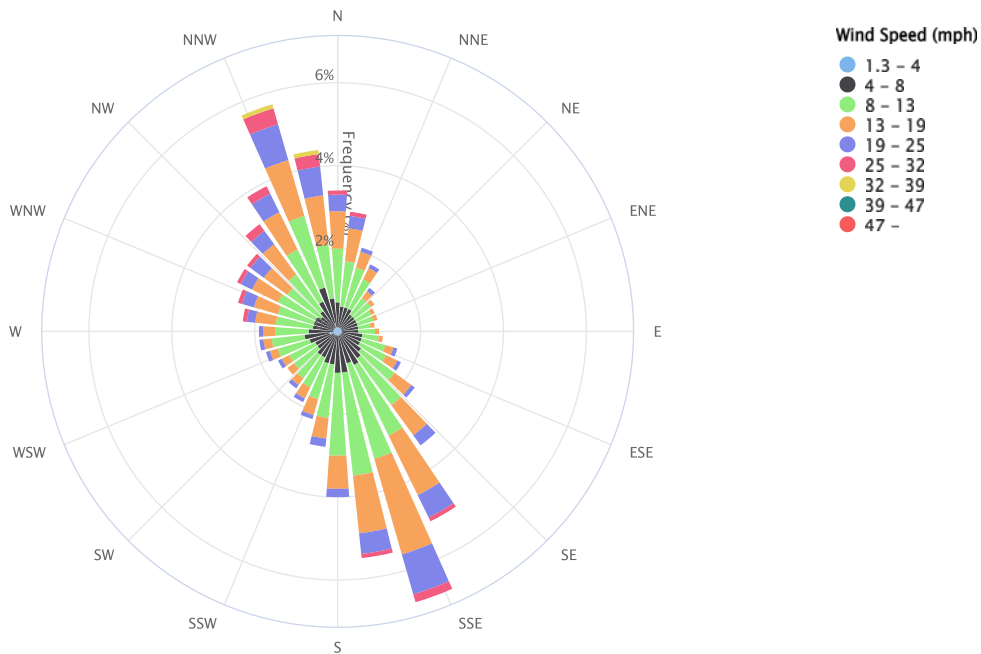
Exhibit B-7

Wind Rose Plat

FARGO HECTOR INTL AP (ND) Wind Rose



Mar. 1, 2000 – Mar. 27, 2023
Sub-Interval: Jan. 1 – Dec. 31, 0 – 23



Click and drag to zoom

FARGO HECTOR INTL AP (ND) - Wind Frequency Table (percentage)

Latitude : 46.9253 Start Date : Mar. 1, 2000 Sub Interval Windows
Longitude : -96.8111 End Date : Mar. 27, 2023 Start End
Elevation : 900 ft. # of Days : 8427 of 8427 Date Jan. 1 Dec. 31
Element : Mean Wind Speed # obs : 199339 of 202248 Hour 0 23

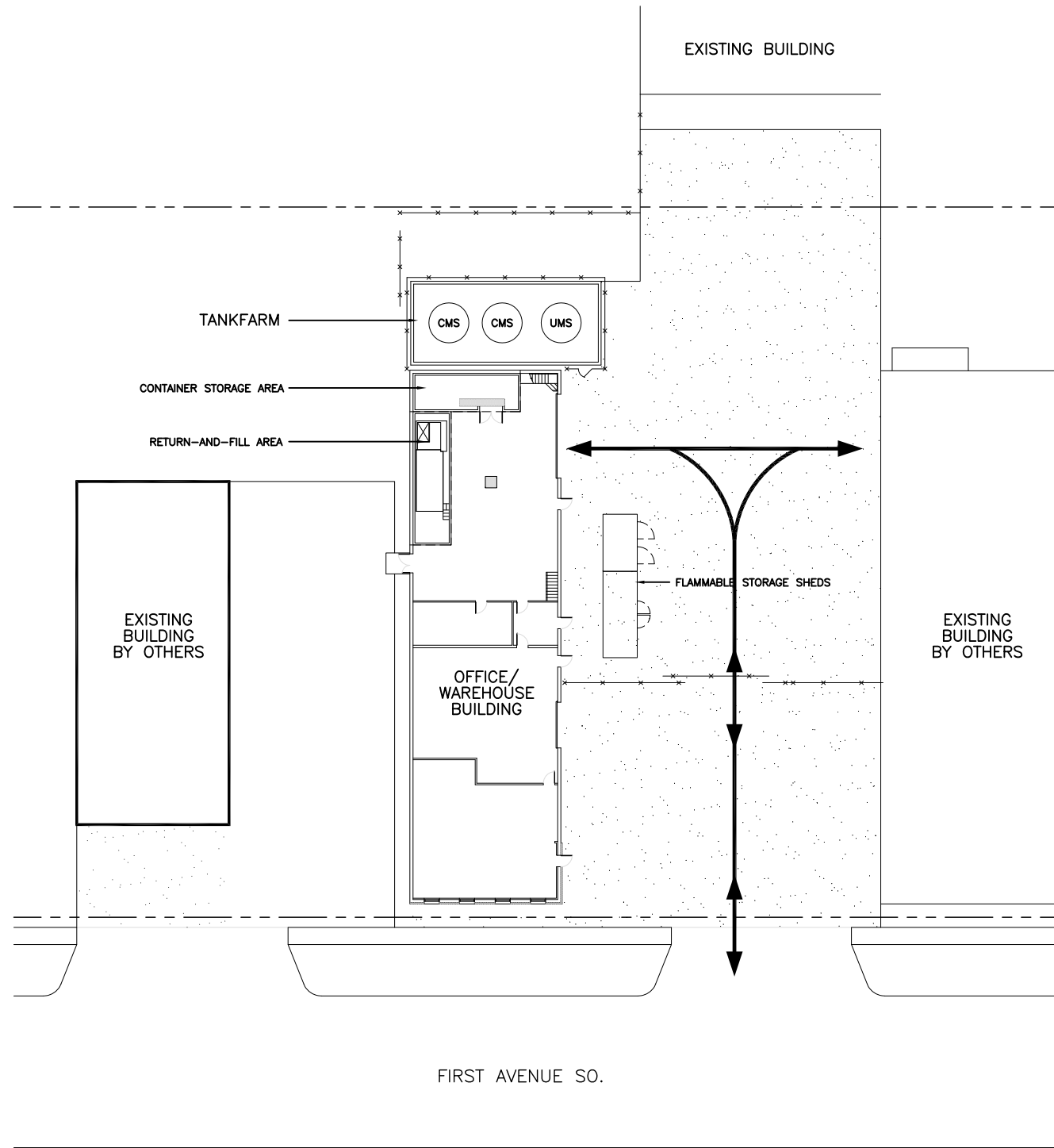
(Greater than or equal to initial interval value and Less than ending interval value.)

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	
1.3 - 4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
4 - 8	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.7	0.9	0.9	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	
8 - 13	1.3	1.1	1.0	0.8	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.6	0.7	1.0	1.4	1.9	2.4	2.5	2.0	1.3	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.8	
13 - 19	0.9	0.8	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.9	1.6	2.4	1.4	0.8	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	
19 - 25	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.6	1.0	0.5	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	
25 - 32	0.1	0.1	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	0.1	0.2	0.1	0.0	0.0	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	
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	
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	
Total(%)	3.5	2.8	2.1	1.9	1.3	1.2	1.1	1.1	1.0	0.9	1.2	1.5	1.7	2.5	3.4	5.1	6.9	5.5	4.1	2.9	2.2	1.9	1.7	1.6	1.5	1.8	1.9	2.0	
Calm (<1.3)																													
Ave Speed	12.7	12.2	10.4	10.3	9.2	8.6	8.2	8.4	8.3	8.4	8.7	9.4	10.2	10.8	11.6	13.1	13.9	12.1	11.0	10.6	9.8	9.5	9.3	9.1	9.4	9.3	9.4	10.6	

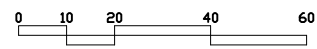
Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 3/27/2023 4:18:48 PM CDT

Exhibit B-8

Site Traffic Patterns



SITE PLAN



GENERAL NOTES

1. TRAFFIC FLOW AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. ACTUAL TRUCK ROUTES MAY CHANGE DUE TO CONSTRUCTION, MAINTENANCE AND/OR UPKEEP AT THE FACILITY. TRAFFIC PATTERN TO OVERNIGHT PARKING AREAS ARE NOT SHOWN.

LEGEND

- TRAFFIC FLOW →
- UMS - USED PARTS WASHER SOLVENT
 - CMS - CLEAN PARTS WASHER SOLVENT
 - FUT - FUTURE TANK

PROPRIETARY STATEMENT

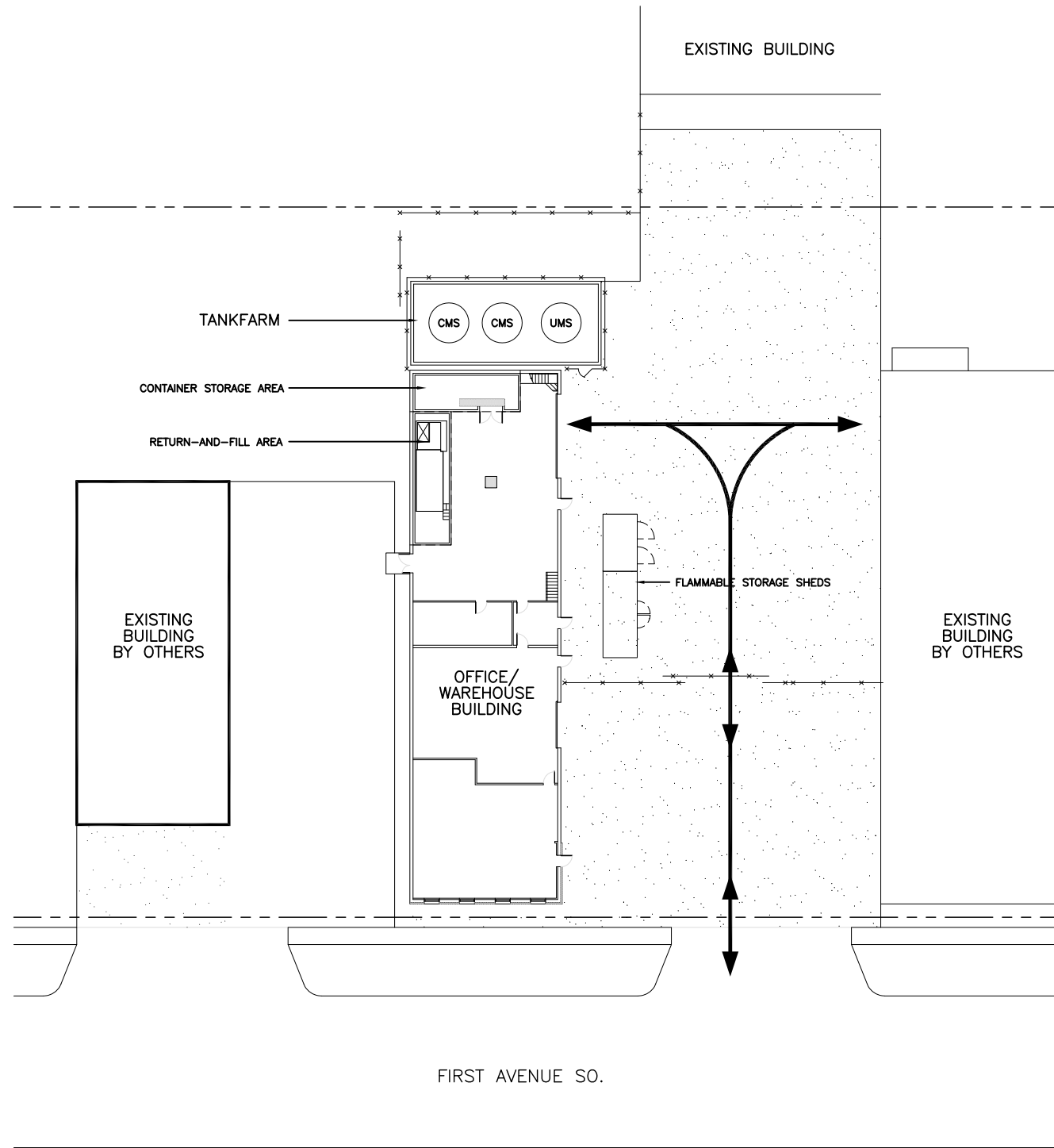
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
**TRAFFIC FLOW FOR
 RETURN-AND-FILL AREA
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103**

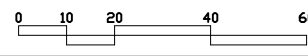
SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	TDD	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-004	A	



SITE PLAN



GENERAL NOTES

1. TRAFFIC FLOW AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. ACTUAL TRUCK ROUTES MAY CHANGE DUE TO CONSTRUCTION, MAINTENANCE AND/OR UPKEEP AT THE FACILITY. TRAFFIC PATTERN TO OVERNIGHT PARKING AREAS ARE NOT SHOWN.

LEGEND

- TRAFFIC FLOW →
- UMS - USED PARTS WASHER SOLVENT
 - CMS - CLEAN PARTS WASHER SOLVENT
 - FUT - FUTURE TANK

PROPRIETARY STATEMENT

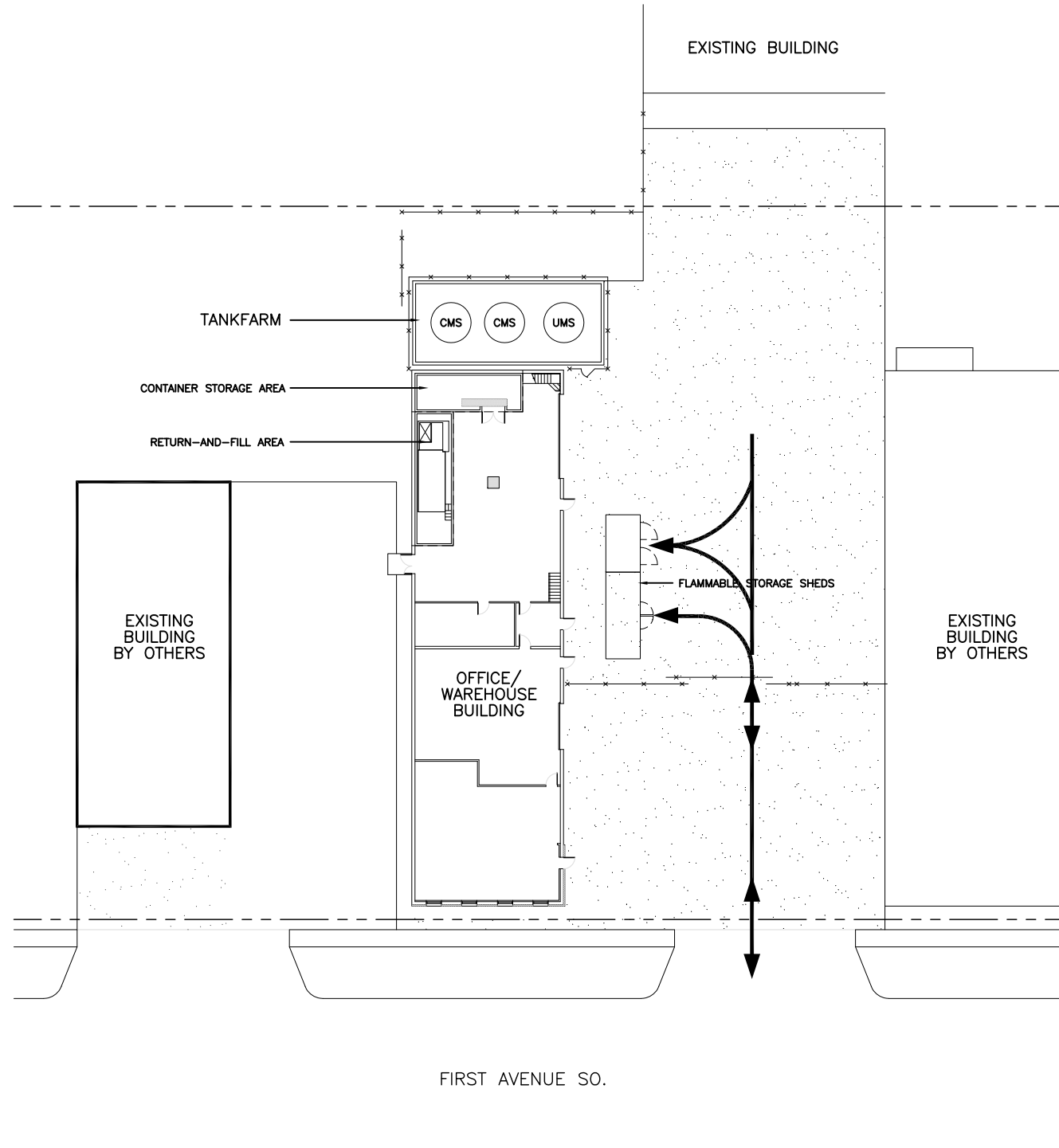
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
**TRAFFIC FLOW FOR
 CONTAINER STORAGE AREA**
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					

SCALE AS SHOWN	BY TDD	CHKD RAB	APPROVED	OPERATIONS	DATE 3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-005	A	



GENERAL NOTES

1. TRAFFIC FLOW AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. ACTUAL TRUCK ROUTES MAY CHANGE DUE TO CONSTRUCTION, MAINTENANCE AND/OR UPKEEP AT THE FACILITY. TRAFFIC PATTERN TO OVERNIGHT PARKING AREAS ARE NOT SHOWN.

LEGEND



- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FUT - FUTURE TANK

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
**TRAFFIC FLOW FOR
 FLAMMABLE STORAGE SHEDS
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103**

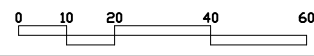
SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

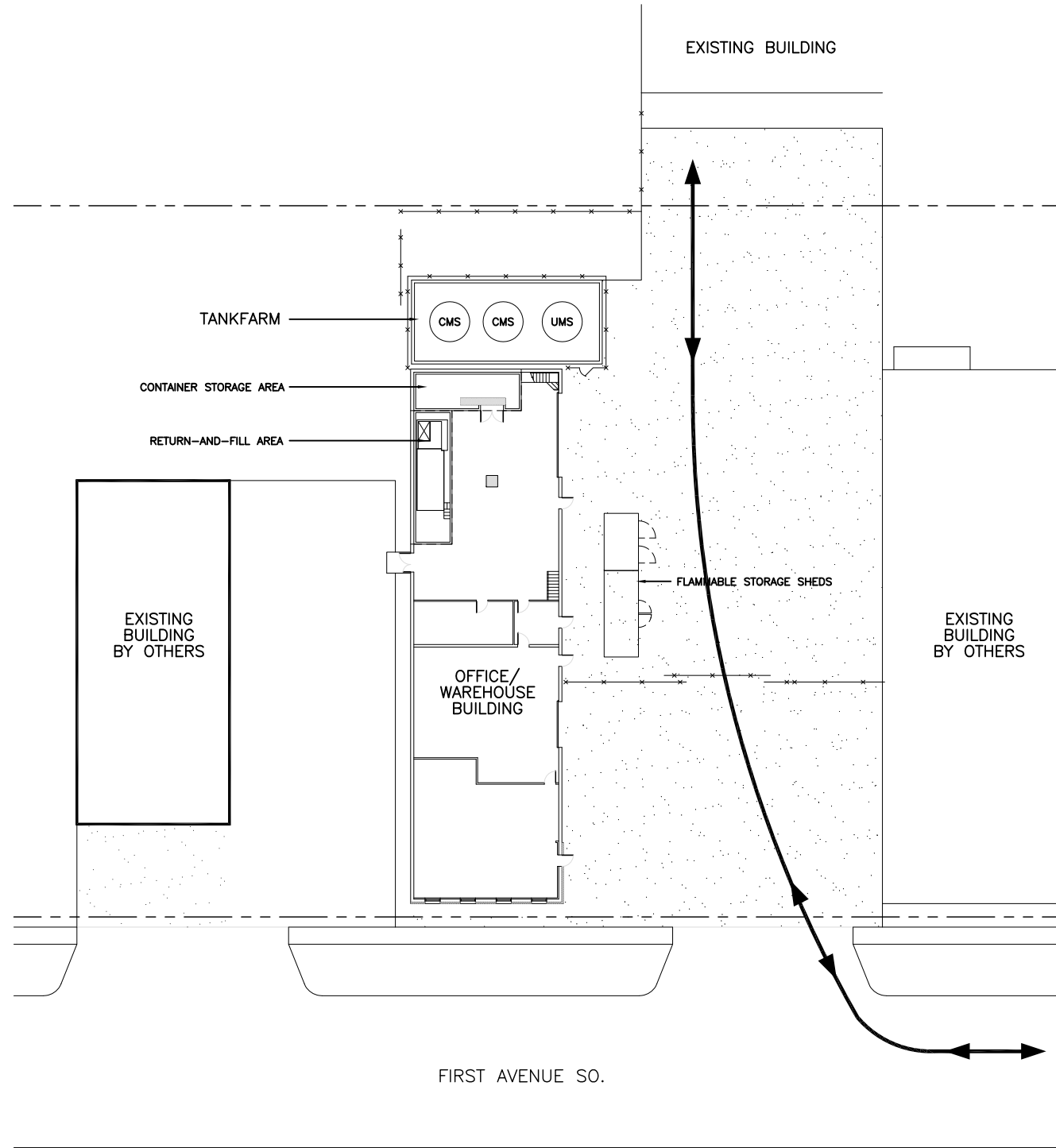
NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	TDD	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-006	A	

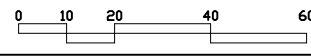


SITE PLAN





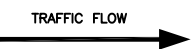
SITE PLAN



GENERAL NOTES

1. TRAFFIC FLOW AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. ACTUAL TRUCK ROUTES MAY CHANGE DUE TO CONSTRUCTION, MAINTENANCE AND/OR UPKEEP AT THE FACILITY. TRAFFIC PATTERN TO OVERNIGHT PARKING AREAS ARE NOT SHOWN.

LEGEND



- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FUT - FUTURE TANK

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
**TRAFFIC FLOW FOR
 SPENT PARTS CLEANER SOLVENT**
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	TDD	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-007	A	

Exhibit C-1

Statistical Model (Dr. Gibbons)

Safety-Kleen's Annual Waste Recharacterization Program

Following is a letter from Robert D. Gibbons, Ph.D. for Safety-Kleen. This letter described the statistical procedures used on analytical data from nation-wide sampling of Safety-Kleen's core waste streams to identify hazardous constituents that are statistically present, at a 90% confidence level, at concentrations about RCRA regulated characteristic concentrations. This information is used by Safety-Kleen to fulfill its obligation to ensure the wastes it stores at the Fargo facility are consistent with the customer declaration as to the wastes being sent.

Notwithstanding any statements made by Dr. Gibbons in his letter, Safety-Kleen acknowledges that generators are required by the regulations to make their own determination as to the waste codes associated with wastes they generate.

Robert D. Gibbons, PhD

Blum-Riese Professor of Biostatistics
Committee on Quantitative Methods in Social, Behavioral and Health Sciences
Director, Center for Health Statistics
rdg@uchicago.edu

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 50th 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 limit¹ 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.² 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.³ Specifically, following U.S. EPA SW846, we construct 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.

¹"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.

²"The upper limit of the CI for μ 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

³"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.⁴

Nonparametric confidence limits are derived as follows. Given an unknown $P \times 100$ th percentile of interest (e.g. the 50th percentile or median),⁵ 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.

⁴“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

⁵“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
7.100	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.

Exhibit C-2

California Annual Recharacterization Sampling Analysis Comparison

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 μ 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 $11 \times 33 = 363$ comparisons to be made. Using 95% confidence, there will be as many as $363 \times .05 = 18$ 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 lognormal, 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_α 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

- [1] Fligner, M.A. and Wolfe, D.A. (1979). Nonparametric prediction limits for a future sample median. *Journal of the American Statistical Association*, **30**, 78-85.
- [2] Guenther, W.C. (1975). The inverse hypergeometric - a useful model. *Statistica Neerlandica*, **29**, 129-144. Note: A statistical foundational paper useful in deriving nonparametric prediction intervals.
- [3] Guilbaud, O. (1983). Nonparametric prediction intervals for sample medians in the general case. *Journal of the American Statistical Association*, **78**, 937-941.
- [4] Hahn, G.J. and Meeker, W.Q. (1991). *Statistical Intervals : A Guide for Practitioners*. Wiley, New York. Note: An excellent text on statistical prediction, tolerance, and confidence intervals.
- [5] Land, C.E. (1971), "Confidence intervals for linear functions of the normal mean and variance," *Ann. Math. Stat.*, **42**, 1187-1205.
- [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.

Exhibit C-3

Sample Testing Protocol

Exhibit C-3

Annual Recharacterization Sample Testing Protocol

Spent Material	Test Parameters	Test Methods
Parts Washer Solvent	Flash Point by Pensky-Martens Closed Cup Tester	EPA SW846 1010
	pH	EPA SW846 9045
	Apparent Specific Gravity and Bulk Density of Waste	ASTM D5057
	TCLP Metals	EPA SW846 1311, 6010, 7470, 7471
	TCLP Semi-Volatiles	EPA SW846 1311, 8260
	TCLP Volatiles	EPA SW846 1311, 8260
Bottom Sediment from the Used Parts Washer Solvent Tank and Return & Fill	Same As Above	
Immersion Cleaner	Same As Above	
Paint and Paint Gun Cleaner Waste	Same As Above	
Aqueous Brake Cleaner	Same As Above	
Dry Cleaner Waste	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 under the Annual Recharacterization Program.

Analysis is performed on a representative grab sample obtained from a single customer's container using a COLIWASA (Composite Liquid Waste Sampler), a composited sample, or representative sample of a bulk load received at a Recycle/Processing Facility.

Exhibit C-4

Sampling Procedures

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



- ✓ 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 **AR2015_PeopleSoft Plant ID_sample type** (e.g., AR2015_CAZ_DC Perc Bottoms, AR2015_CAZ_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: Debra Bowen (412.963.2445)
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 retains 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.

Rick Haskins Director Research and Development | Safety-Kleen | A Clean Harbors Company | Elgin, IL | rick.haskins@safety-kleen.com

847.468.6766 (o) | 630.347.1093 (c) | 847.468.6770 (f) | safety-kleen.com



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.

Exhibit C-5

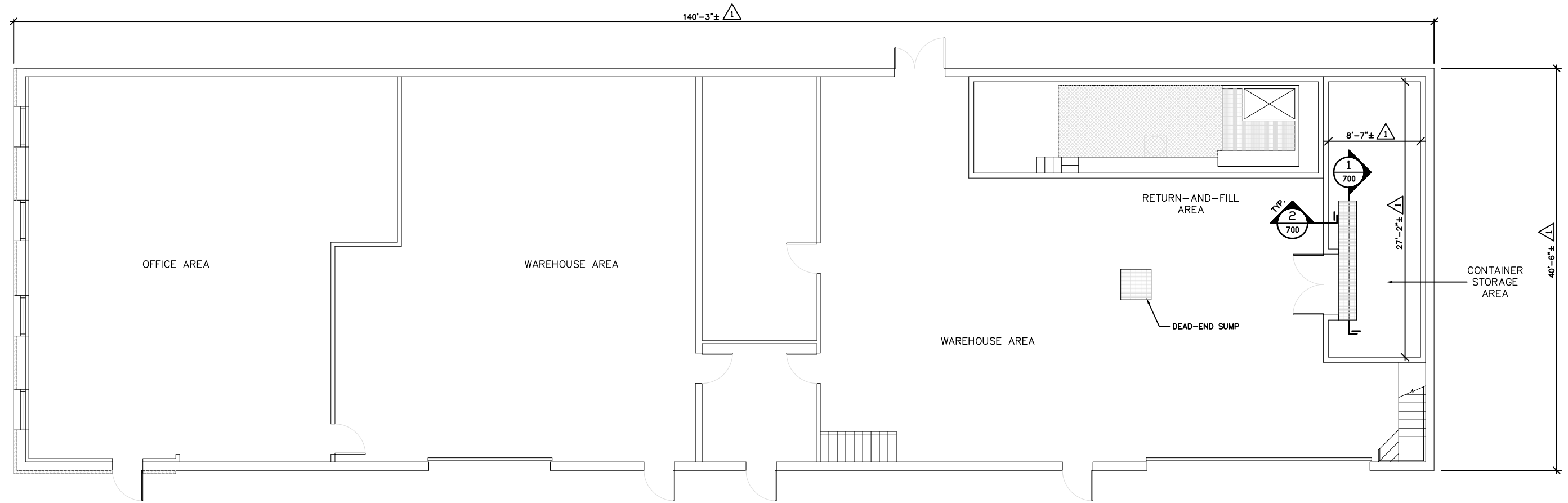
Final Waste Code Assignments 2023

2023 AR Codes and SKDOTS - National

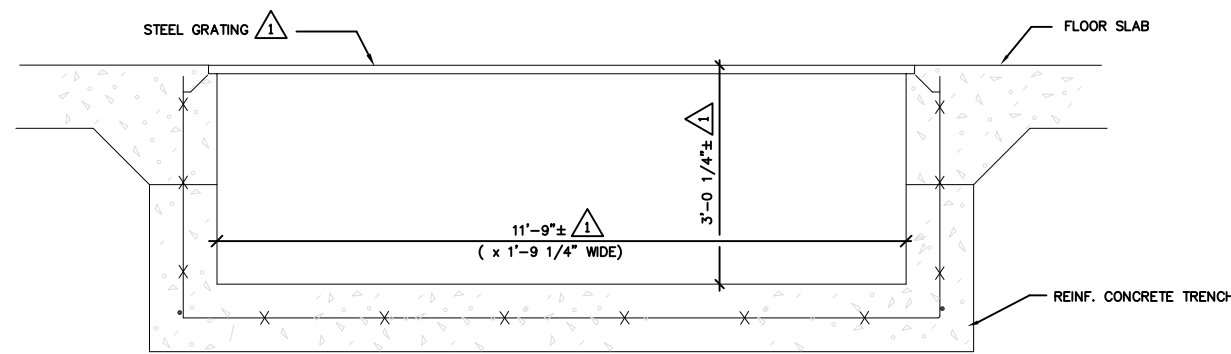
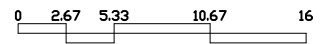
Waste Stream	Description Subcategory	2022 National Waste Codes	2022 NATIONAL Profile	Changes from 2022 to 2023	2023 National Waste Codes	2023 NATIONAL Profile
Branch Contaminated Debris (Solid would not carry D001)	N/A	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Refer to CH Outbound	No Change	F002, F003, F005, 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	Refer to CH Outbound
Immersion Cleaner	N/A	D039, D040	153634	No Change	D039, D040	153634
Parts Washer Solvent 105 Virgin	under 100 lbs	D001, D018, D039, D040	150045	No Change	D001, D018, D039, D040	150045
	over 100 lbs (RQ)		150085			150085
	Non-RQ DF container (no DOT SP)		157045			157045
Bulk MS Solvent	N/A	D001, D018, D039, D040	Refer to CH Outbound	No Change	D001, D018, D039, D040	Refer to CH Outbound
Parts Washer Solvent Sludge/Dumpster Mud	N/A	D001, D018, D039, D040	Refer to CH Outbound	No Change	D001, D018, D039, D040	Refer to CH Outbound
Parts Washer Solvent Tank Bottoms (bulk)	N/A	D001, D018, D039, D040	Refer to CH Outbound	No Change	D001, D018, D039, D040	Refer to CH Outbound
Premium (150) / PRF / PDF Mil Spec Solvent	N/A	D039	150055	No Change	D039	150055
	DF container (no DOT SP)		157055			157055
Paint Gun Cleaner	under 100 lbs	F003, F005, D001, D018, D035, D039, D040	150380	No Change	F003, F005, D001, D018, D035, D039, D040	150380
	over 100 lbs (RQ)		150425			150425
Paint Gun Cleaner (Premium Thinner)	under 100 lbs	F003, F005, D001, D018, D035, D039, D040	158380	No Change	F003, F005, D001, D018, D035, D039, D040	158380
	over 100 lbs (RQ)		158381			158381
Clear Choice Paint Gun Cleaner	under 100 lbs	F003, D001, D018, D035, D039, D040	150426	No Change	F003, D001, D018, D035, D039, D040	150426
	over 100 lbs (RQ)		150427			150427
Paint Waste Other	Any size container	F003, F005, D001, D018, D035, D039, D040	150375	No Change	F003, F005, D001, D018, D035, D039, D040	150375
Universal Paint Gun Cleaner	N/A	D001, D018, D035, D039, D040	403901294	No Change	D001, D018, D035, D039, D040	403901294
Dry Cleaner (Perc) Bottoms	N/A	F002, D007, D039, D040	150589	No Change	F002, D007, D039, D040	150589
Dry Cleaner (Perc) Filters	N/A	F002, D007, D039, D040	150621	No Change	F002, D007, D039, D040	150621
Dry Cleaner (Perc) Separator Water	N/A	F002, D039, D040	150520	No Change	F002, D039, D040	150520
Dry Cleaning Naphtha Bottoms	N/A	D001, D007, D039, D040	150422	No Change	D001, D007, D039, D040	150422
Dry Cleaning Naphtha Filters	N/A	D001, D007, D039, D040	150424	No Change	D001, D007, D039, D040	150424
Dry Cleaning Naphtha Separator Water	N/A	D001, D039, D040	150423	No Change	D001, D039, D040	150423

Exhibit D1-1

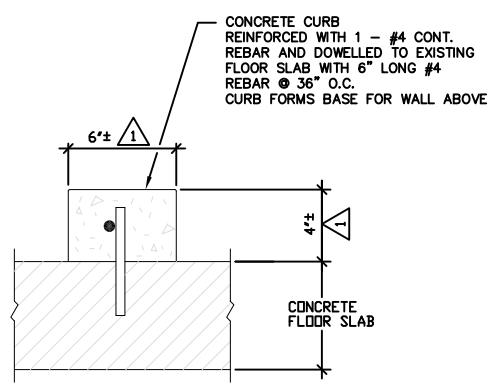
Warehouse Container Storage Area Plan Details



BUILDING PLAN



1 TRENCH SECTION
700 TYPICAL CONSTRUCTION NO SCALE



2 CURB SECTION
700 TYPICAL CONSTRUCTION NO SCALE

Exhibit D1-1

GENERAL NOTES

- 1 INDICATES AS BUILT MEASUREMENT OR FIELD VERIFICATION OF EXISTING CONDITION ON 3/27/23.
- 2 DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.
- 3 NON-PERMITTED AREAS MAY CHANGE.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE **OFFICE/WAREHOUSE BUILDING PLAN AND SECTIONS**
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

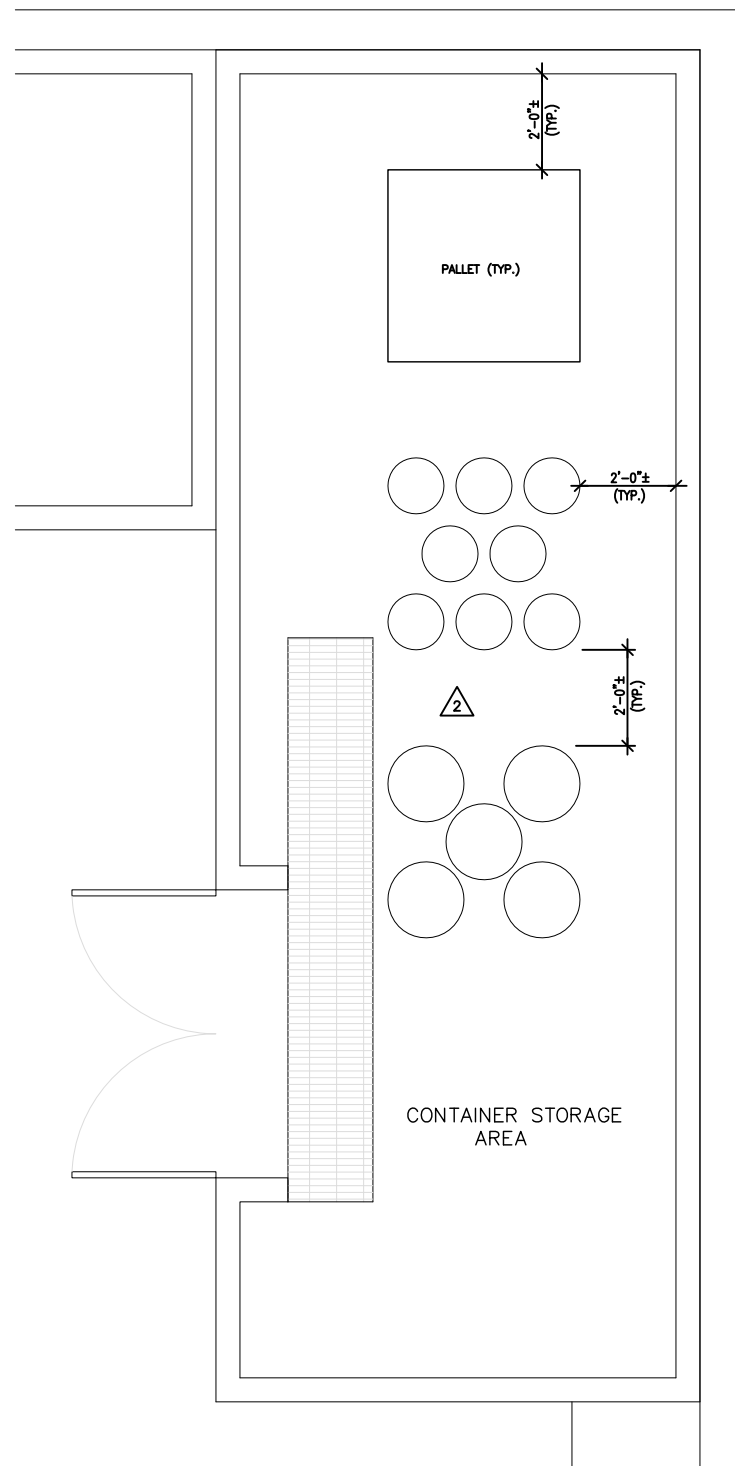
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723	SCALE AS SHOWN	BY CMA	CHKD RAB	APPROVED	OPERATIONS	DATE
0	ISSUED FOR PERMIT	JEK	KT	KT	051717	SERVICE CENTER LOCATION	FARGO, ND.	SC-DWG. NO.	7122-0B00-001	REV. NO.	α
NO.	DESCRIPTION	BY	CHK	APPR	DATE	REVISIONS					

Exhibit D1-2

Reserved

Exhibit D1-3

Example CSA Pallet Layout



PARTIAL BUILDING PLAN

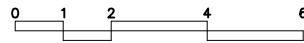


Exhibit D1-3

GENERAL NOTES

- PALLET LAYOUT AS INDICATED IS AN EXAMPLE LAYOUT ONLY. THIS LAYOUT CONFIGURATION MAY CHANGE. PALLETS MAY BE STACKED UP TO 6'-0" HIGH.
- ANY PALLET LOCATION MAY BE REPLACED WITH 55 GALLON, 30 GALLON OR 16 GALLON DRUMS STACKED DIRECTLY ON THE FLOOR AND DOUBLE STACKED.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN CORP. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 EXAMPLE PALLET LAYOUT FOR CONTAINER STORAGE AREA
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE	SCALE AS SHOWN	BY CMA	CHKD RAB	APPROVED	OPERATIONS	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723						
O	ISSUED FOR PERMIT	JEK	KT	KT	051717						
REVISIONS						SERVICE CENTER LOCATION	SC-DWG. NO.-REV. NO.		SHEET NO.		
						FARGO, ND.	7122-7100-701				

Exhibit D1-4

Container Storage Area Containment Calculations

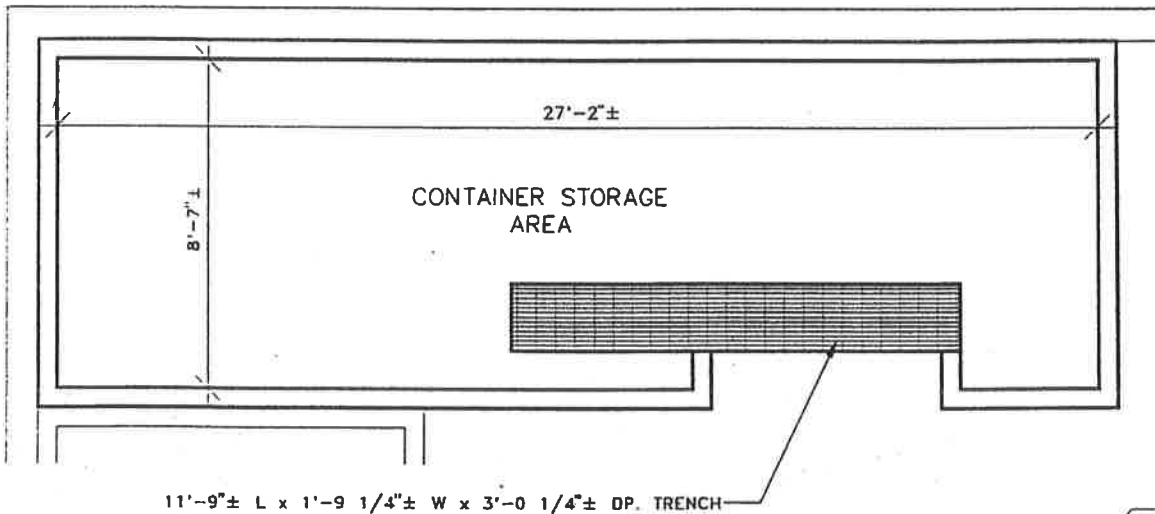
SECONDARY CONTAINMENT CALCULATIONS

CONTAINER STORAGE AREA

CONTAINER STORAGE AREA WITH
CONCRETE SLAB AND
CONCRETE CURB AT PERIMETER.
CONCRETE TRENCH AT DOOR
OPENING.

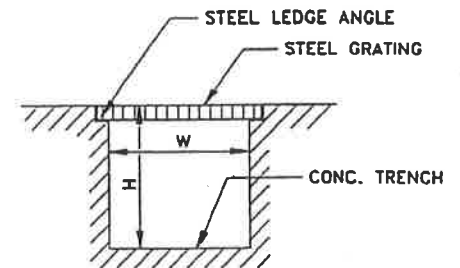
CONTAINMENT PROVIDED BY TRENCH.

REF. :
S-K DWG. NO. 118303-LAPB700-0
AND FIELD DATA COLLECTED
12-7-94.



PLAN VIEW

NO SCALE



TYP.
TRENCH SECTION

NO SCALE

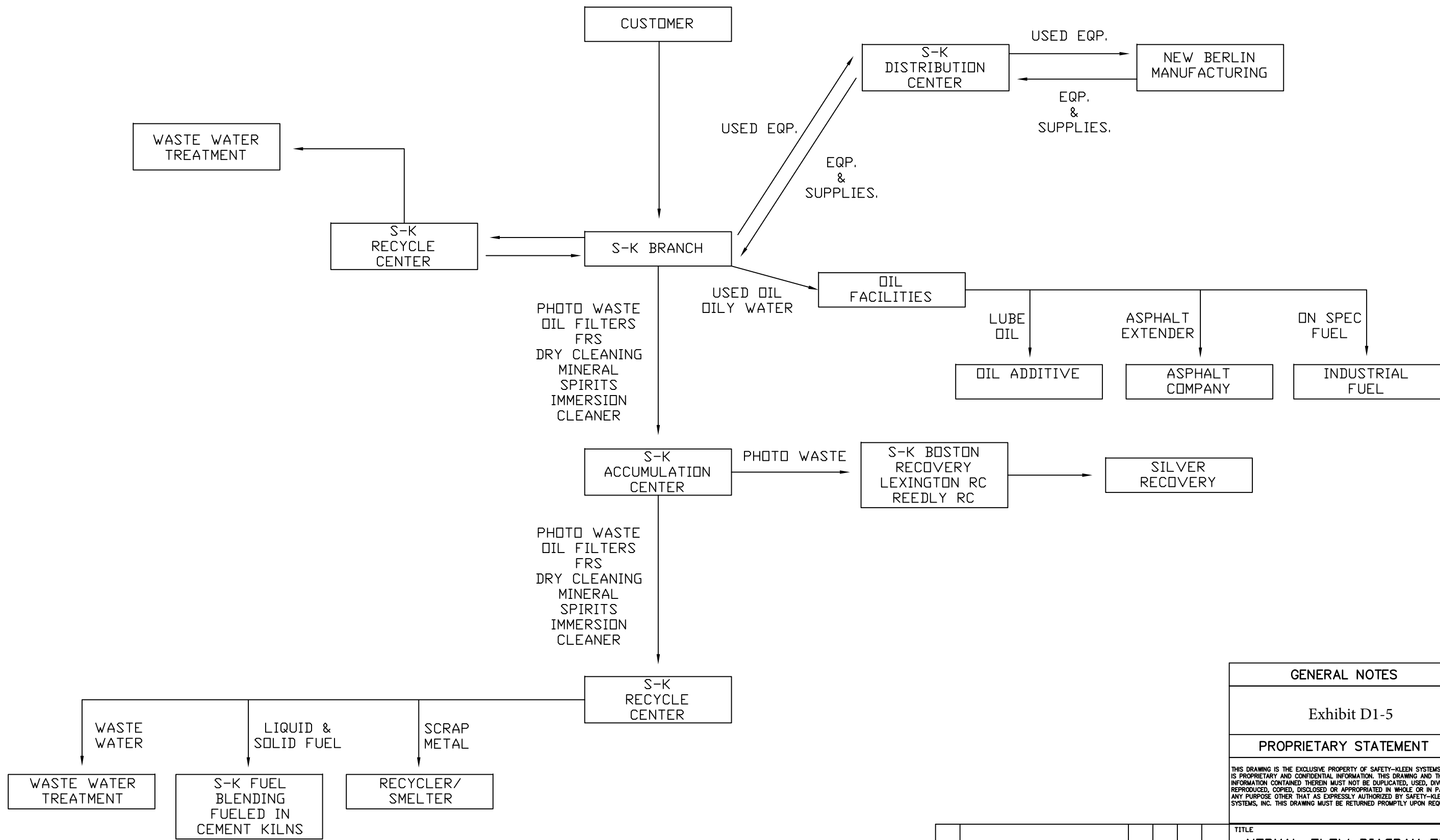
TRENCH VOLUME

VOLUME = L x W x H x 7.48 GAL/CF
USE MIN. L, W, & H DIMENSIONS (CONSERVATIVE)
CONTAINMENT CAPACITY = TRENCH VOLUME

$$\begin{aligned} \text{CONTAINMENT CAPACITY} &= (11'-9") \times (1'-9 \frac{1}{4}") \times (3'-0 \frac{1}{4}") \times (7.48 \text{ GAL/CF}) \\ &= (11.75') \times (1.77') \times (3.02') \times (7.48 \text{ GAL/CF}) \\ &= \underline{470 \text{ GAL}} \end{aligned}$$

Exhibit D1-5

Example Container Process Flow Through Facility



GENERAL NOTES

Exhibit D1-5

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
NORMAL FLOW DIAGRAM FOR S-K'S CUSTOMER WASTE

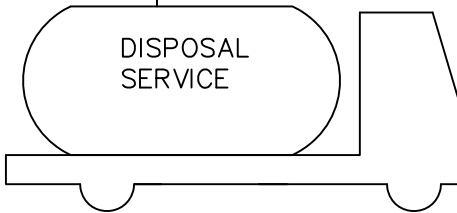
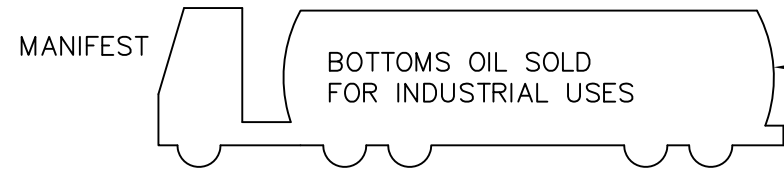
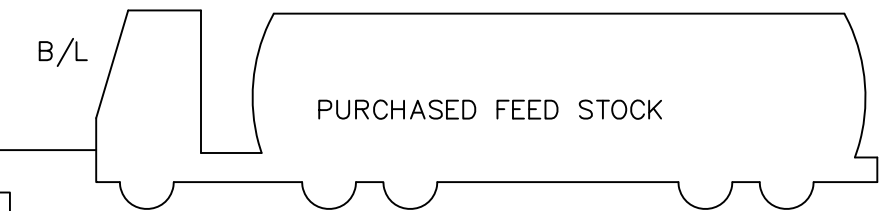
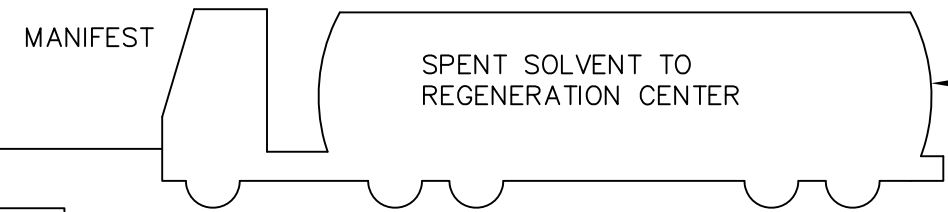
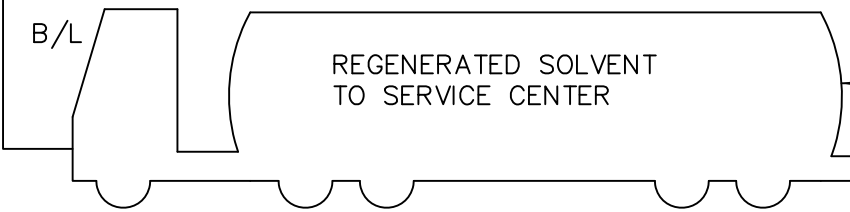
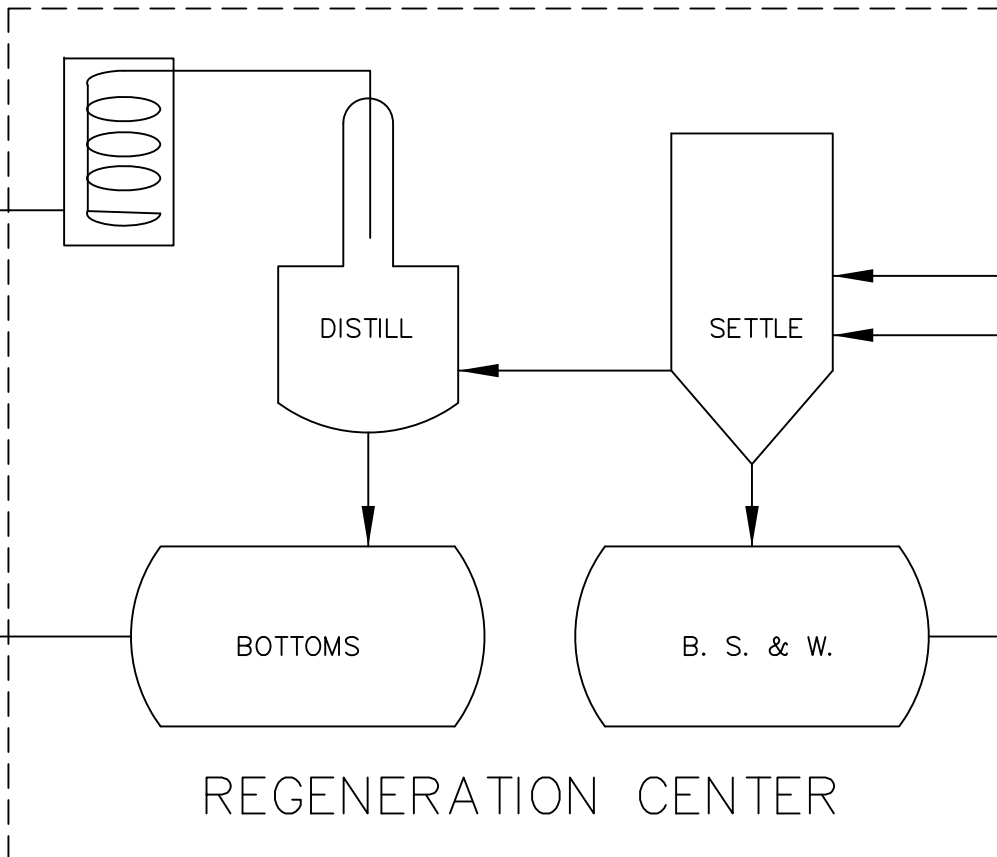
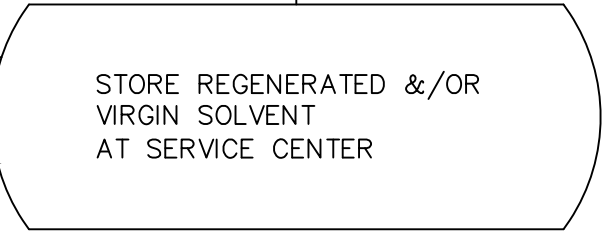
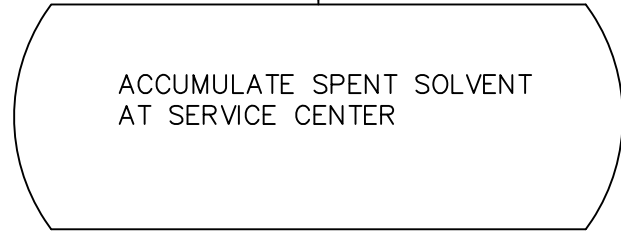
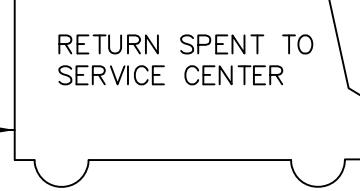
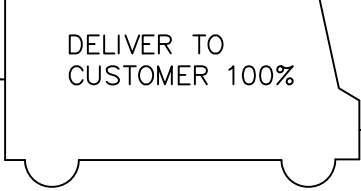
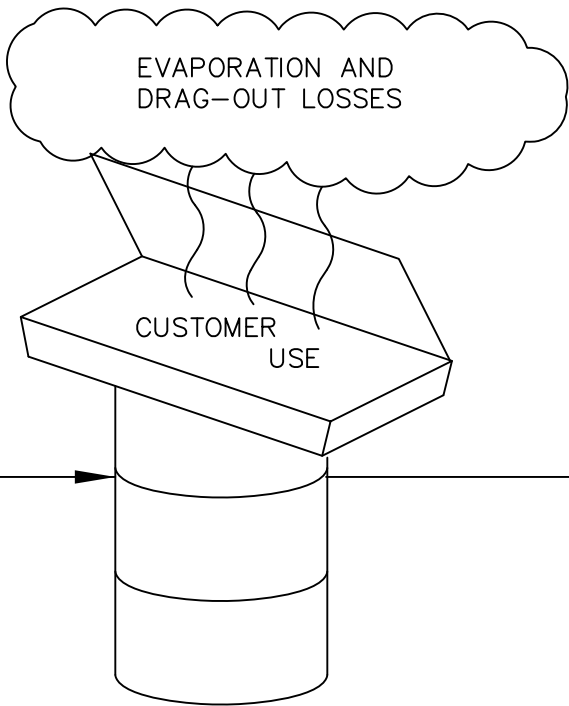
SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
A	NEW ISSUE	JEK	GAS	GAS	020714
REVISIONS					

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GAS	GAS	GAS	2/7/14
BRANCH STANDARD					STD-DVG-REV NO.
STANDARD					BSD 112

Exhibit D1-6

Example Solvent Use and Regeneration Loop



MANIFEST

B/L=WITH BILL OF LADING

Exhibit D1-6

TITLE					
SOLVENT USE AND REGENERATION LOOP					
SAFETY-KLEEN SYSTEMS, INC. <small>42 LINGWATER DR. NORWELL, MA 02061 PHONE 781-792-5000</small>					
SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
NONE	PROJ.SOL				2-5-03
SERVICE CENTER LOCATION			SC-DWG-REV NO.		SHEET NO.
STANDARD			BSD 941		

Exhibit D2-1

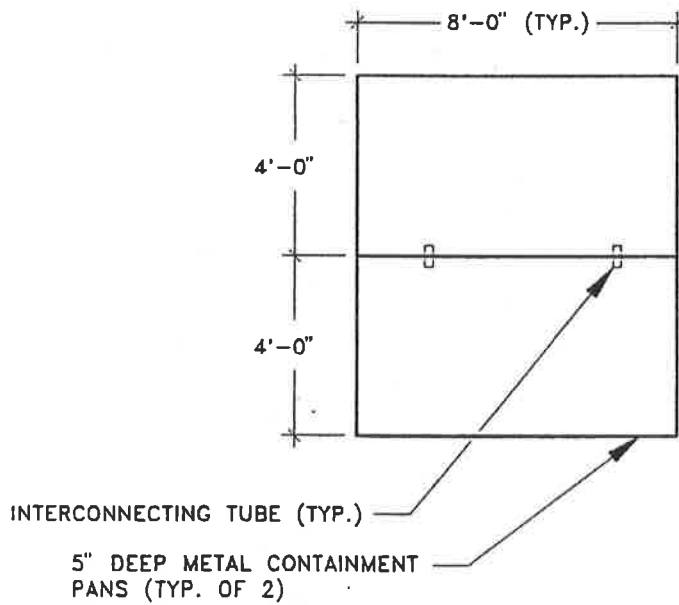
Return & Fill Containment Calculations

SECONDARY CONTAINMENT CALCULATIONS - RETURN-AND-FILL AREA

SECONDARY CONTAINMENT BY METAL PANS.

VOLUME = [(0.42')(4.00')(8.00')](2 PANS) = 26.88 CU.FT.

CONTAINMENT CAPACITY = (26.88 CU.FT.)(7.48 GAL/CU.FT.) = 201 GAL.



PLAN VIEW

EXCESS CONTAINMENT CAPACITY = CONTAINMENT CAPACITY - VOLUME OF LARGEST CONTAINER

SWIC DRUM WASHER VOLUME = 162 GAL.

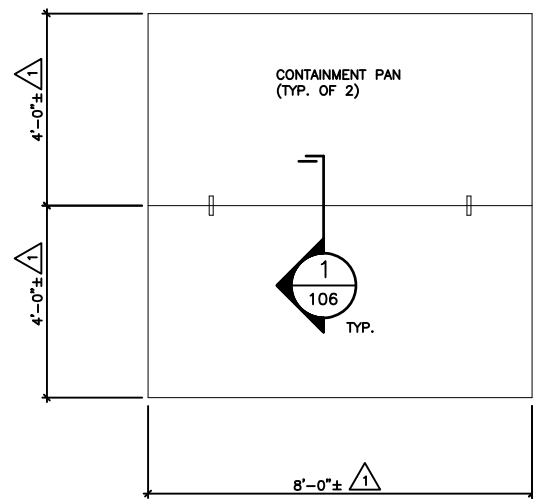
CONTAINMENT CAPACITY = 201 GAL.

EXCESS CONTAINMENT CAPACITY = 201 GAL. - 162 GAL. = (+) 39 GAL.

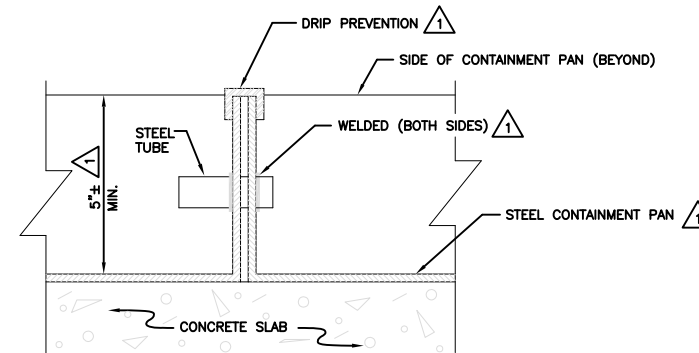
∴ SECONDARY CONTAINMENT IS ADEQUATE.

Exhibit D2-2

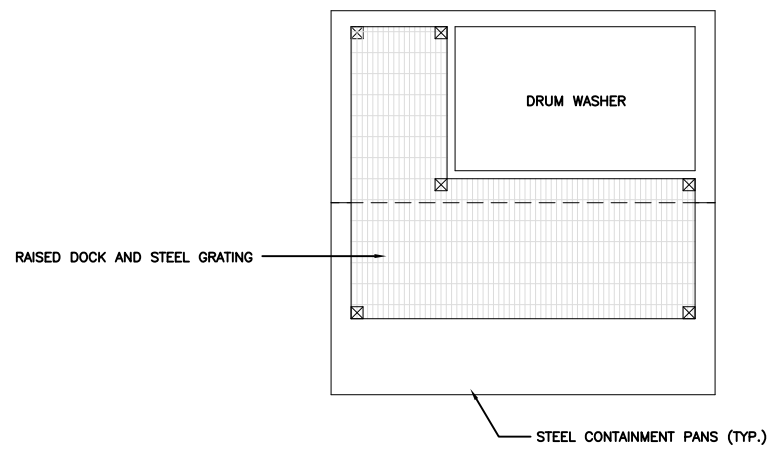
Return & Fill Details



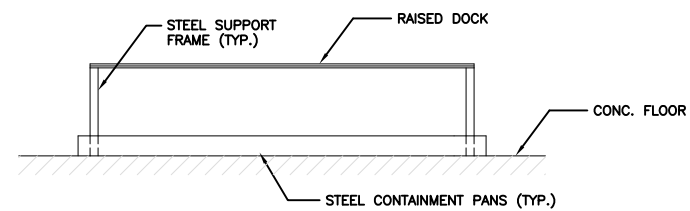
SECONDARY CONTAINMENT PAN LAYOUT
TYPICAL CONSTRUCTION NO SCALE



1/106 SECONDARY CONTAINMENT PAN SECTION
TYPICAL CONSTRUCTION NO SCALE



FLOOR PLAN
TYPICAL CONSTRUCTION NO SCALE



FRONT ELEVATION
TYPICAL CONSTRUCTION NO SCALE

Exhibit D2-2

GENERAL NOTES

- 1 INDICATES AS BUILT MEASUREMENT OR FIELD VERIFICATION OF EXISTING CONDITION ON 12-7-94.
- 2. DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE **RETURN-AND-FILL PLAN AND DETAILS**
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

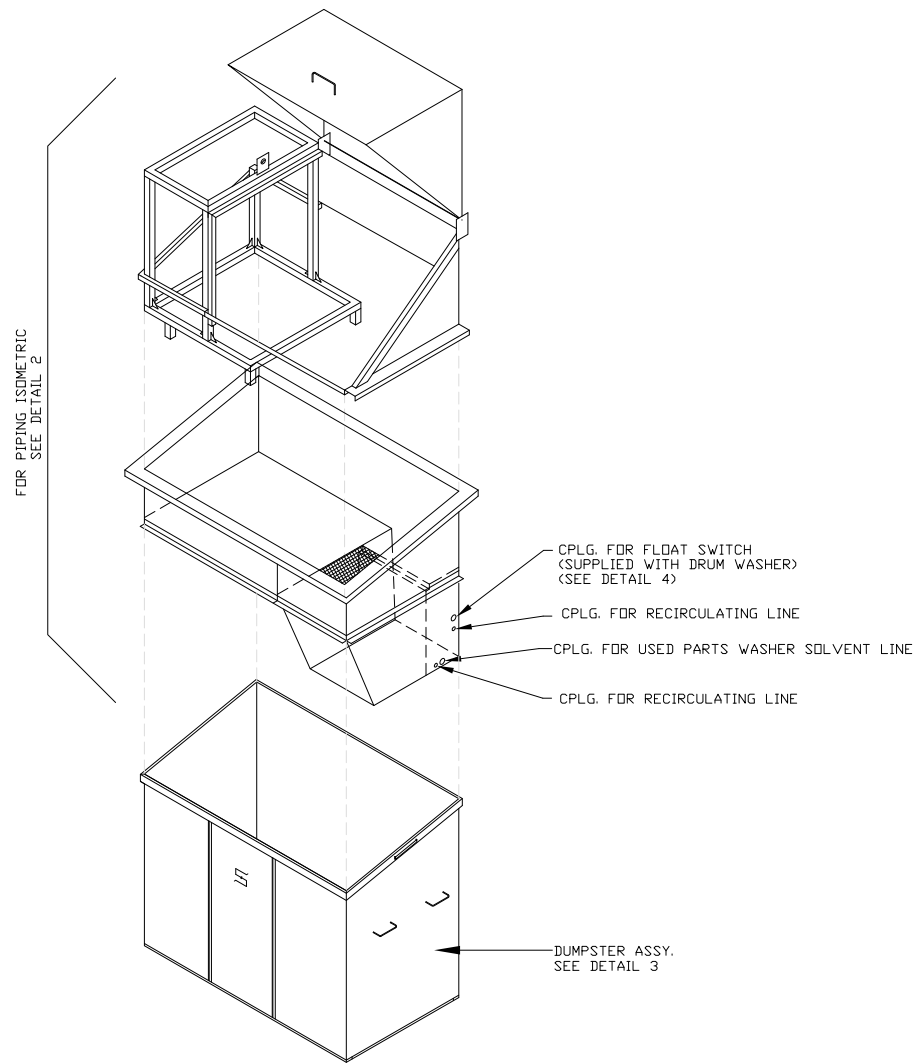
NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
NONE	CMA	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-5600-700	A	

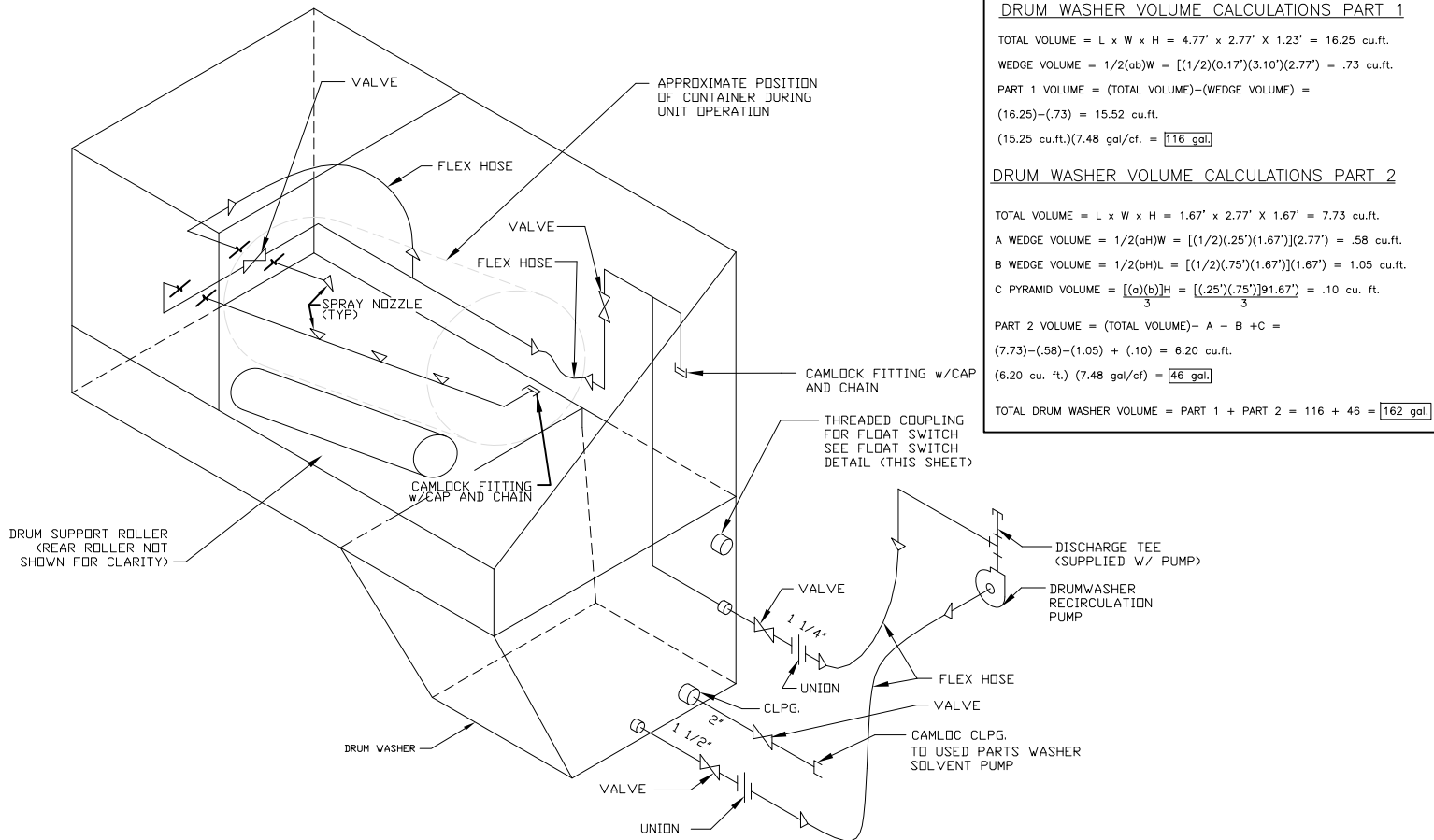
Exhibit D2-3

Drum Washer Isometric

DUMPSTER/BARREL WASHER ASSY – DETAIL 1



BARREL WASHER PIPING ISOMETRIC – DETAIL 2



DRUM WASHER VOLUME CALCULATIONS PART 1

TOTAL VOLUME = L x W x H = 4.77' x 2.77' x 1.23' = 16.25 cu.ft.
 WEDGE VOLUME = 1/2(ab)W = [(1/2)(0.17')(3.10')(2.77')] = .73 cu.ft.
 PART 1 VOLUME = (TOTAL VOLUME)-(WEDGE VOLUME) = (16.25)-(.73) = 15.52 cu.ft.
 (15.25 cu.ft.)(7.48 gal/cf. = 116 gal)

DRUM WASHER VOLUME CALCULATIONS PART 2

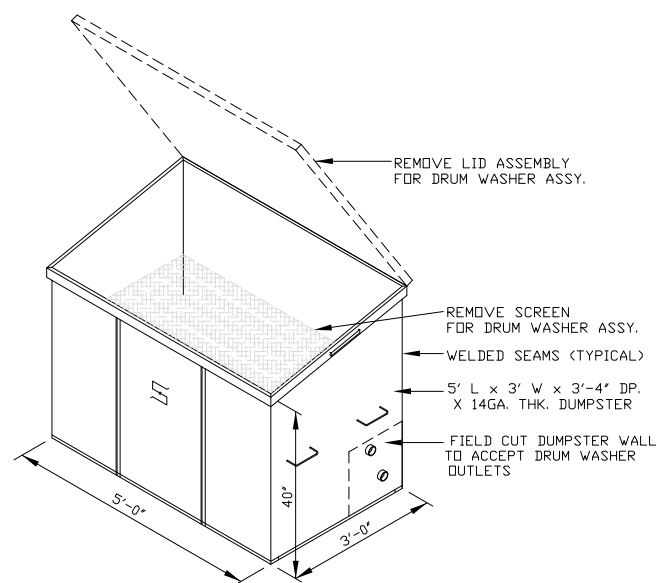
TOTAL VOLUME = L x W x H = 1.67' x 2.77' x 1.67' = 7.73 cu.ft.
 A WEDGE VOLUME = 1/2(ah)W = [(1/2)(.25')(1.67')(2.77')] = .58 cu.ft.
 B WEDGE VOLUME = 1/2(bh)L = [(1/2)(.75')(1.67')(1.67')] = 1.05 cu.ft.
 C PYRAMID VOLUME = [(a)(b)(h)]/3 = [(.25')(.75')(1.67)]/3 = .10 cu. ft.
 PART 2 VOLUME = (TOTAL VOLUME) - A - B + C = (7.73)-(.58)-(1.05) + (.10) = 6.20 cu.ft.
 (6.20 cu. ft.)(7.48 gal/cf) = 46 gal

TOTAL DRUM WASHER VOLUME = PART 1 + PART 2 = 116 + 46 = 162 gal

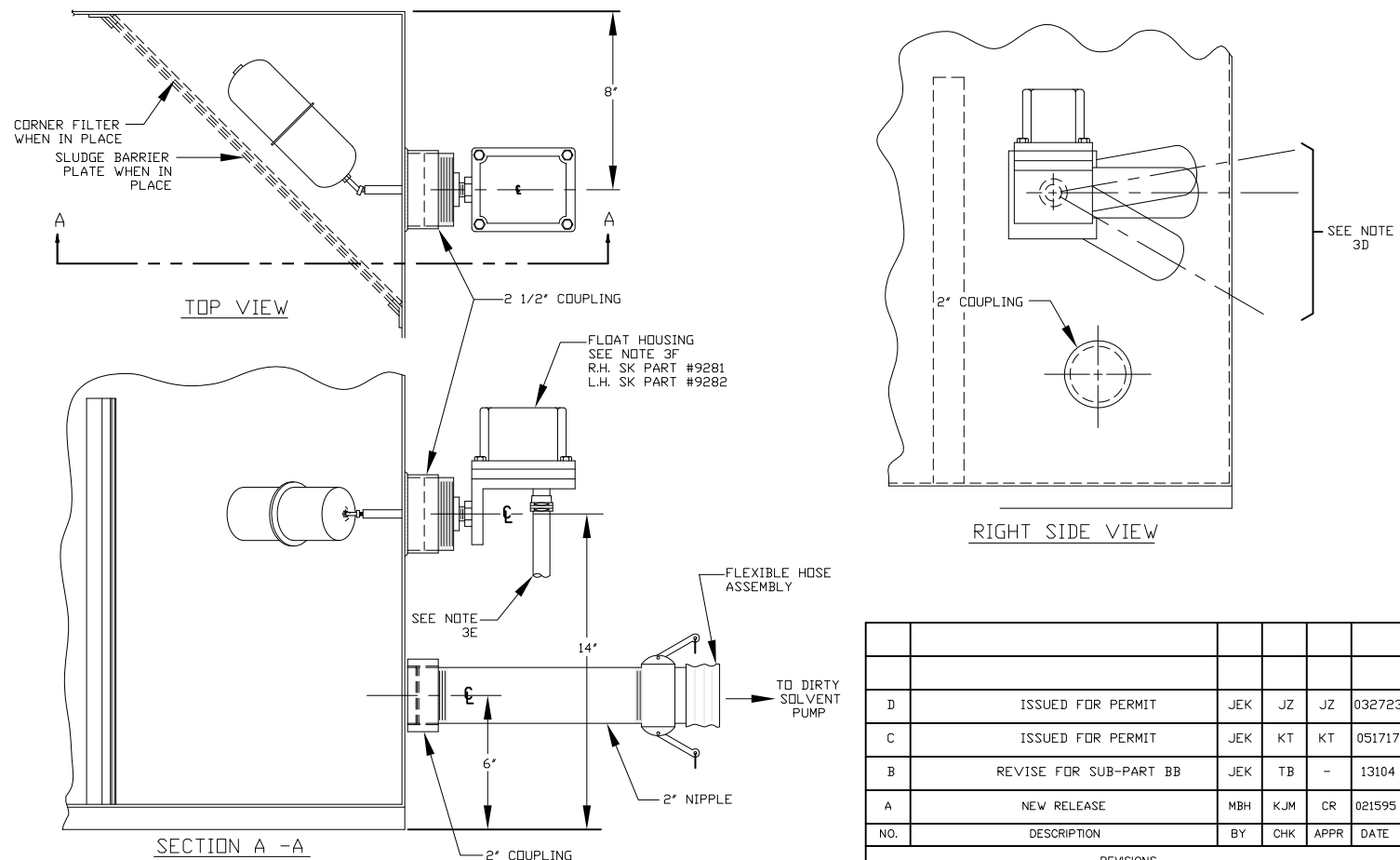
GENERAL NOTES

- 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.
- ALL ITEMS WITH SAFETY-KLEEN PART NO. REFERENCES WILL BE SUPPLIED TO CONTRACTOR.
- FLOAT SWITCH INSTALLATION INSTRUCTIONS
 - TAKE FLOAT SWITCH AND WRAP CLOCKWISE WITH 2 TEFLON WINDS OF TAPE AND INSTALL INTO 2 1/2" COUPLING ON OUTSIDE OF DUMPSTER
 - TAKE FLOAT AND THREAD IT INTO THE FLOAT SWITCH FROM THE INSIDE SHAFT OF THE DUMPSTER AND TIGHTEN SECURELY.
 - RELEASE SHIPPING BRACKET BY REMOVING SCREW AND DISCARDING BRACKET.
 - 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.
 - FLOAT SWITCH SHOULD BE WIRED UP ACCORDING TO MFGRS. SPECS AND IN COMPLIANCE WITH ANY LOCAL CODES. (USE RIGID CONDUIT THROUGHOUT).
 - 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).
 - RE-ADJUST FLOAT STOPS TO THOSE SHOWN ON RIGHT SIDE VIEW.
 - WHEN DUMPSTER DOES NOT HAVE A 2 1/2" COUPLING, ONE SHOULD BE ON (LIQUID TIGHT) TO DIMENSIONS SHOWN.

DUMPSTER ASSY. – DETAIL 3



FLOAT SWITCH INSTALLATION – DETAIL 4



PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE DRUM WASHER/DUMPSTER ISOMETRIC
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
D	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
C	ISSUED FOR PERMIT	JEK	KT	KT	051717
B	REVISE FOR SUB-PART BB	JEK	TB	-	13104
A	NEW RELEASE	MBH	KJM	CR	021595

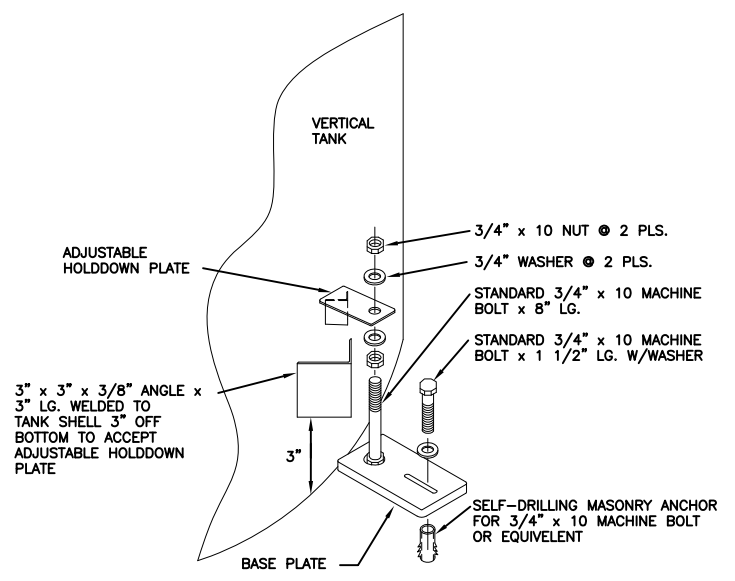
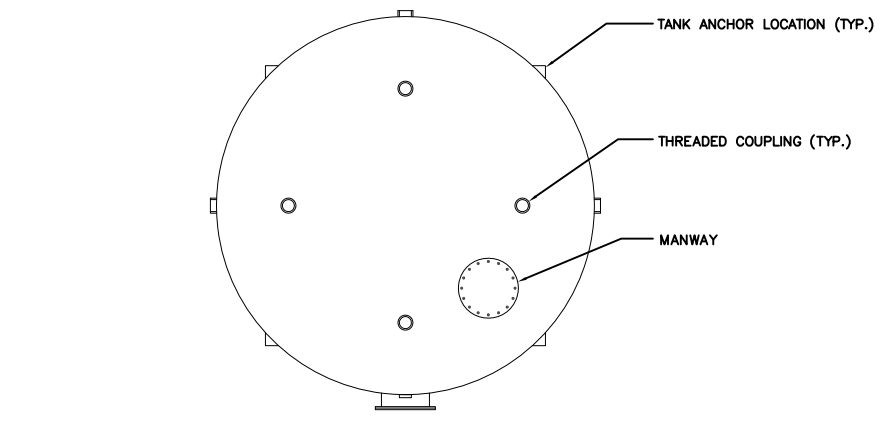
REVISIONS

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
NONE	MBH	KJM	CR		02-08-95

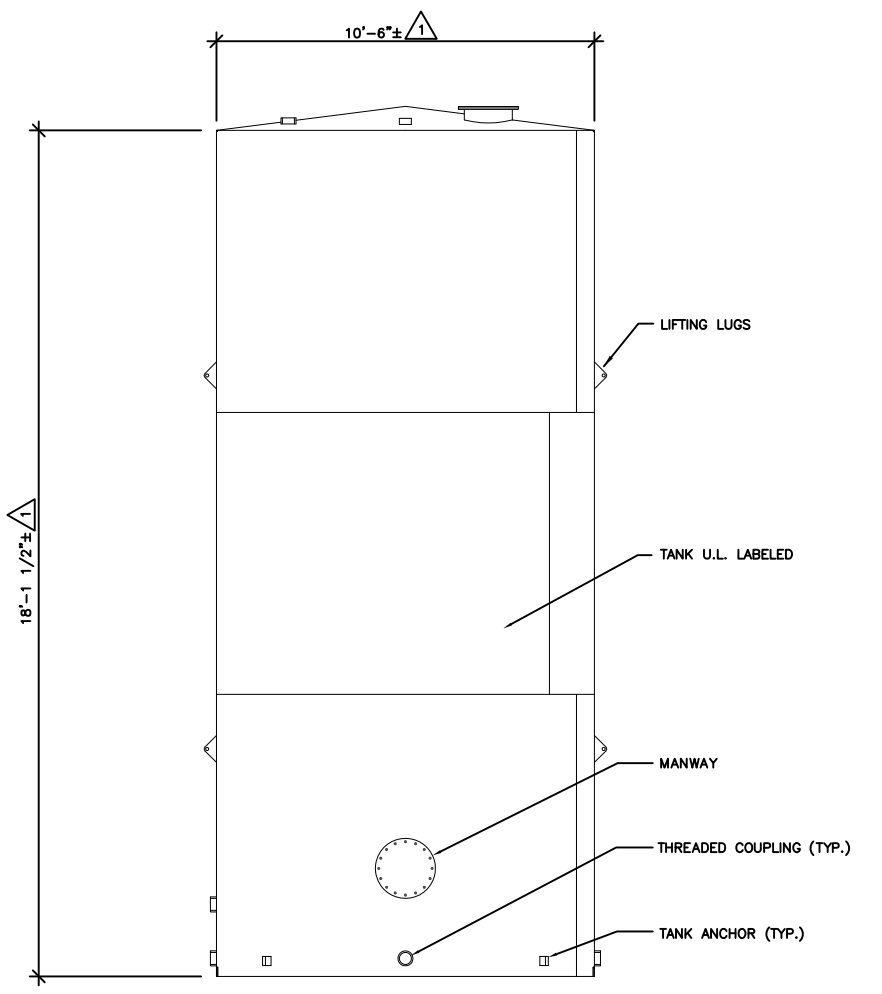
SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
FARGO, N.D.	7122-5600-299	D

Exhibit D2-4

12,000 Gallon Used Solvent Tank Diagram



1 TANK ANCHORING DETAIL
 103 TYPICAL CONSTRUCTION SCALE: NONE



TANK PLAN AND ELEVATION
 NO SCALE

Exhibit D2-4

GENERAL NOTES

- INDICATES AS-BUILT MEASUREMENT OR FIELD VERIFICATION OF EXISTING CONDITION ON 3/27/23.
- DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.
- TANK SURFACES ARE TYPICALLY PREPARED IN ACCORDANCE WITH STEEL STRUCTURE PAINTING COUNCIL CODE #SSPC-SP3-63T.
- TANKS TYPICALLY RECEIVE ONE COAT WHITE OXIDE PAINT AND TWO COATS OF ALKYD BASE GLOSS WHITE STRUCTURAL ENAMEL.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

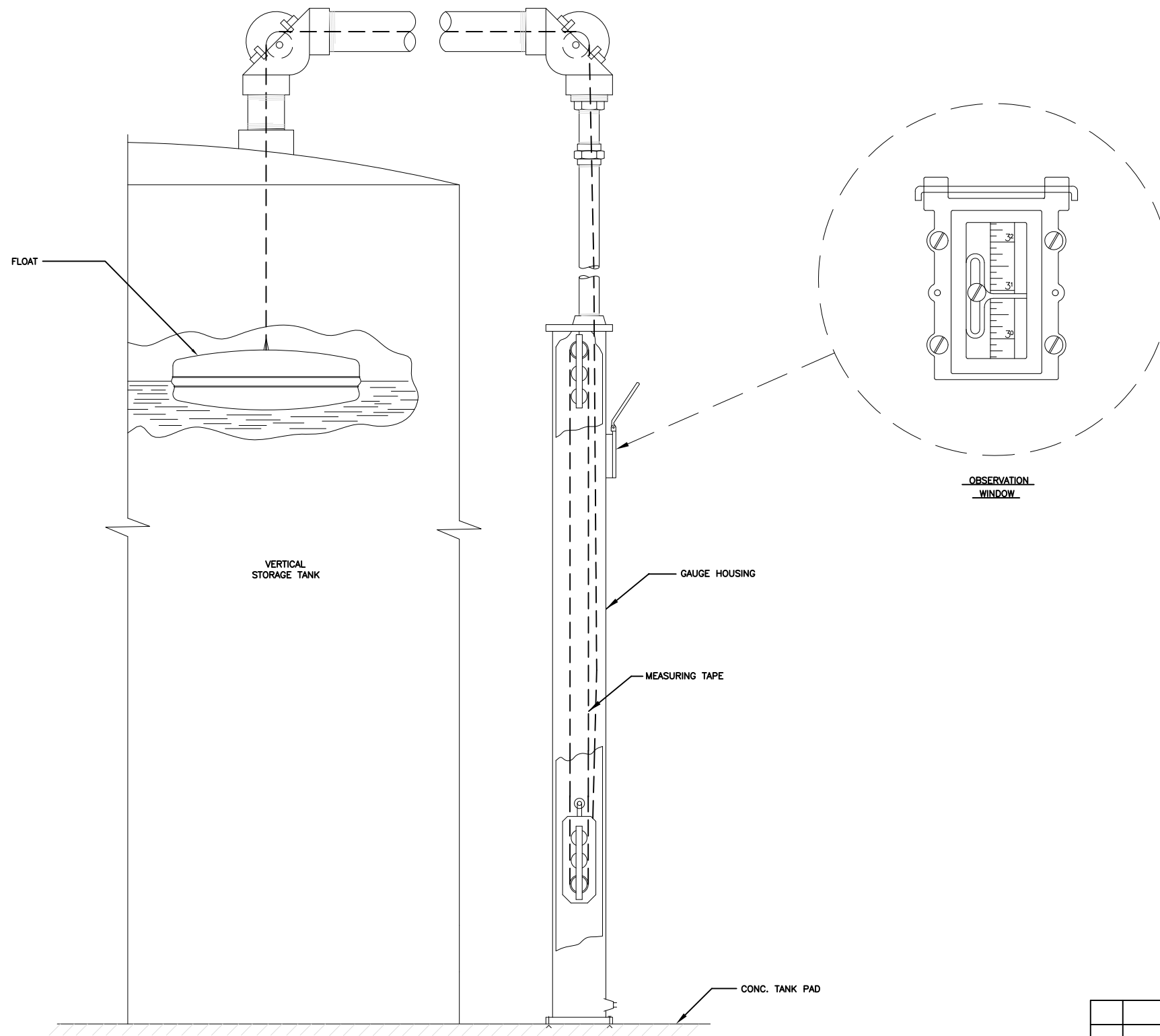
SPENT PARTS CLEANER SOLVENT
 12,000 GALLON VERT. STORAGE TANK
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

REVISONS		NO.	DESCRIPTION	BY	CHK	APPR	DATE	SCALE AS SHOWN	BY	CHKD	APPROVED	OPERATIONS	DATE
A	ISSUED FOR PERMIT			JEK	JZ	JZ	032723						
0	ISSUED FOR PERMIT			JEK	KT	KT	051717						
								SERVICE CENTER LOCATION	SC-DWG. NO.		REV. NO.		
								FARGO, ND.	7122-4100-900		A		

Exhibit D2-5

Moorman Brothers Tank Gauge



VERTICAL STORAGE TANK - GAUGE DETAIL
 TYPICAL CONSTRUCTION
 NO SCALE

Exhibit D2-5

GENERAL NOTES

1. ALL DIMENSIONS AND DETAILS ON THIS SHEET ARE TYPICAL PER MANUFACTURER.
2. DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
MOORMANN BROS.
TANK GAUGE DETAILS
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

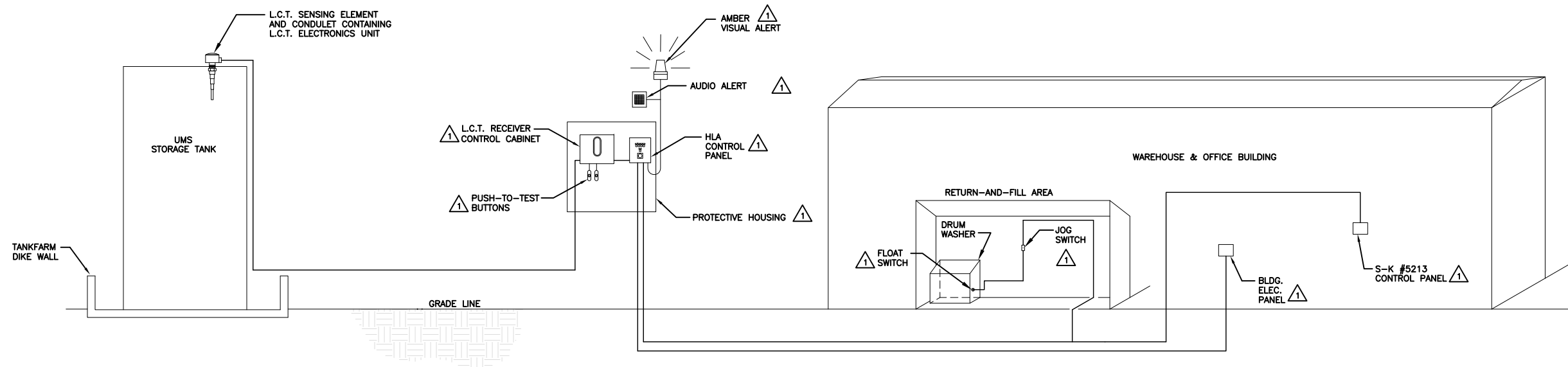
SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
O	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

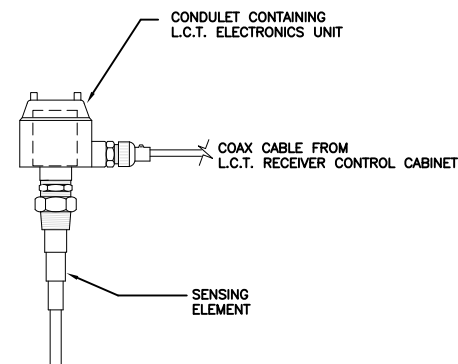
SCALE AS SHOWN	BY TDD	CHKD RAB	APPROVED	OPERATIONS	DATE 3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-4100-298	A	

Exhibit D2-6

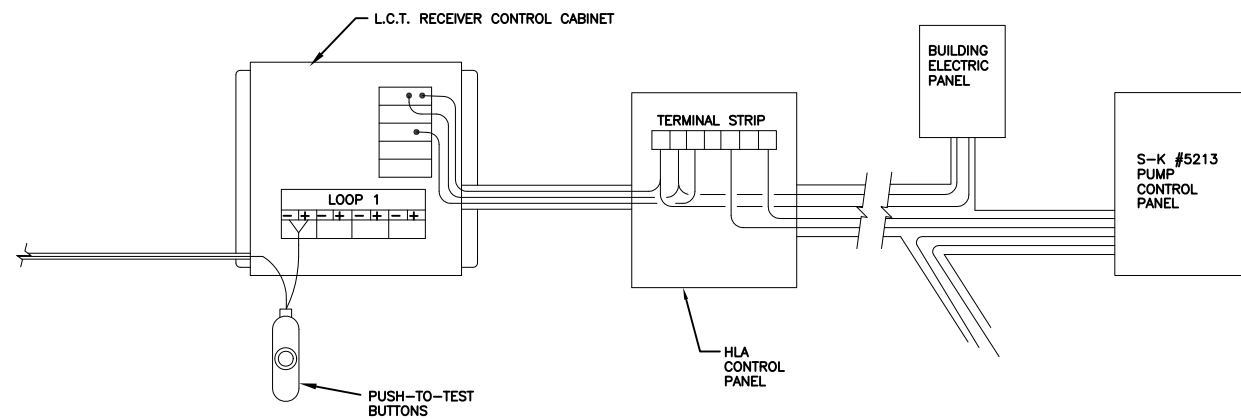
Used Solvent Tank High Level Alarm System Diagram



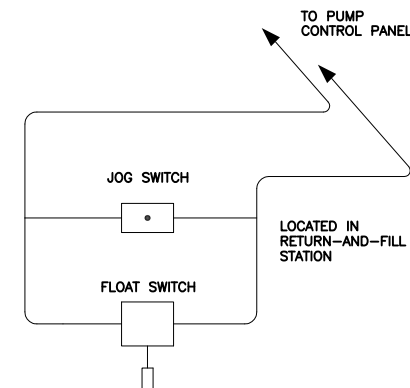
HIGH LEVEL ALARM SYSTEM DIAGRAM
TYPICAL CONSTRUCTION NO SCALE



L.C.T. SENSING ELEMENT AND CONDULET DETAIL
TYPICAL CONSTRUCTION NO SCALE



HLA SYSTEM CONTROL WIRING LAYOUT
TYPICAL CONSTRUCTION NO SCALE



RETURN-AND-FILL WIRING DETAIL
TYPICAL CONSTRUCTION NO SCALE

Exhibit D2-6

GENERAL NOTES

- 1. INDICATES AS-BUILT MEASUREMENT OR FIELD VERIFICATION OF EXISTING CONDITION ON 3/27/23.
- 2. DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.

LEGEND

UMS - SPENT PARTS WASHER SOLVENT

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

SPENT PARTS CLEANER SOLVENT HIGH LEVEL ALARM SYSTEM DIAGRAM
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

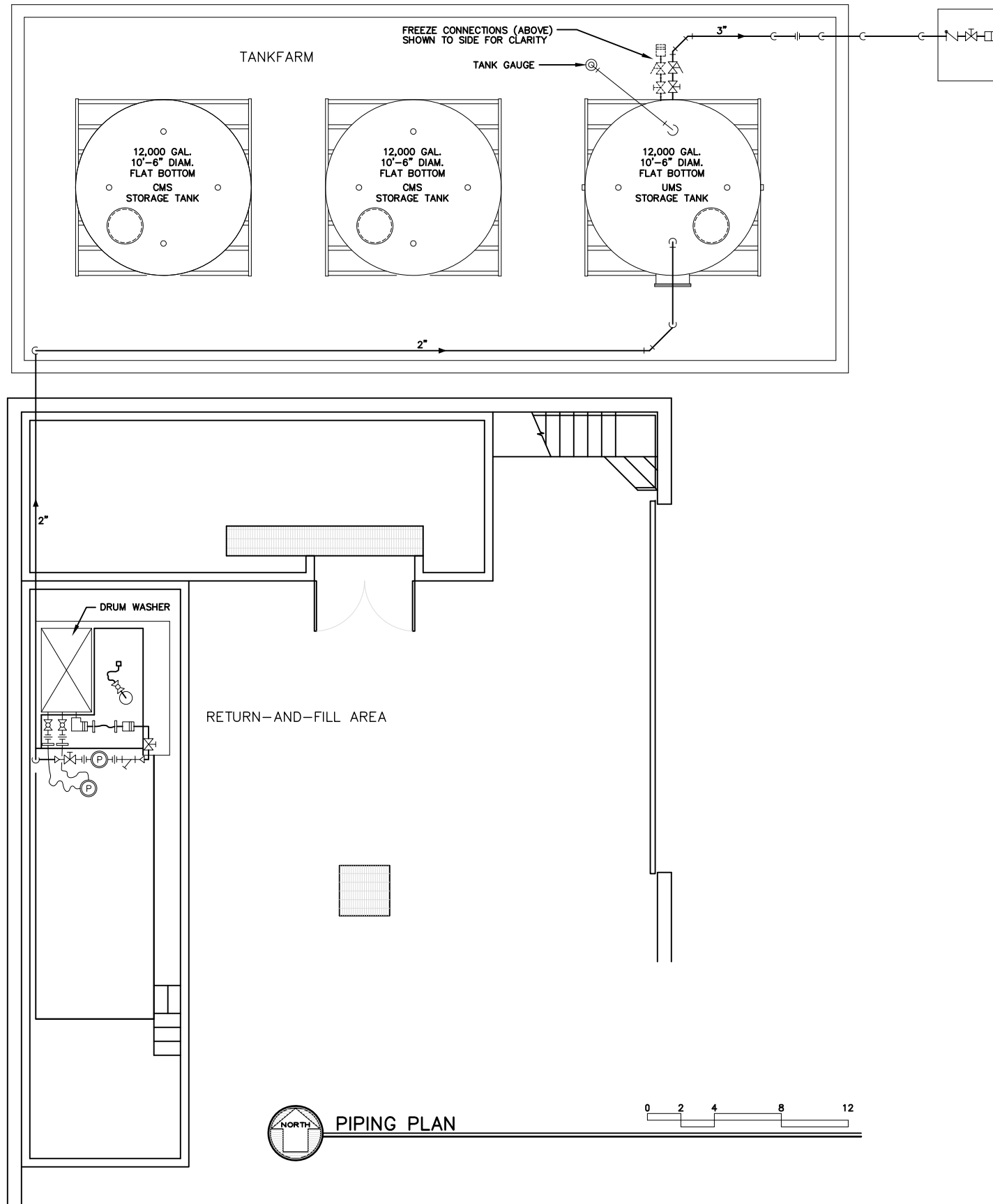
SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723	SCALE AS SHOWN	BY CMA	CHKD RAB	APPROVED	OPERATIONS	DATE
0	ISSUED FOR PERMIT	JEK	KT	KT	051717	SERVICE CENTER LOCATION	FARGO, ND.	SC-DWG. NO.	7122-4100-400	REV. NO.	A
REVISIONS											

Exhibit D2-7

Tank Farm and Return & Fill Piping Plan

2-25-95 9:40AM LAPB2000.DWG 9462.2



PIPING PLAN



Exhibit D2-7

GENERAL NOTES

1. PIPING CONFIGURATION AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. NON-PERMITTED TANKS AND EQUIPMENT MAY CHANGE.
3. ACTUAL PIPING CONFIGURATION MAY CHANGE DUE TO MAINTENANCE AND/OR UPKEEP AT THE FACILITY.

LEGEND

- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE TANKFARM-RETURN/FILL
PIPING PLAN
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

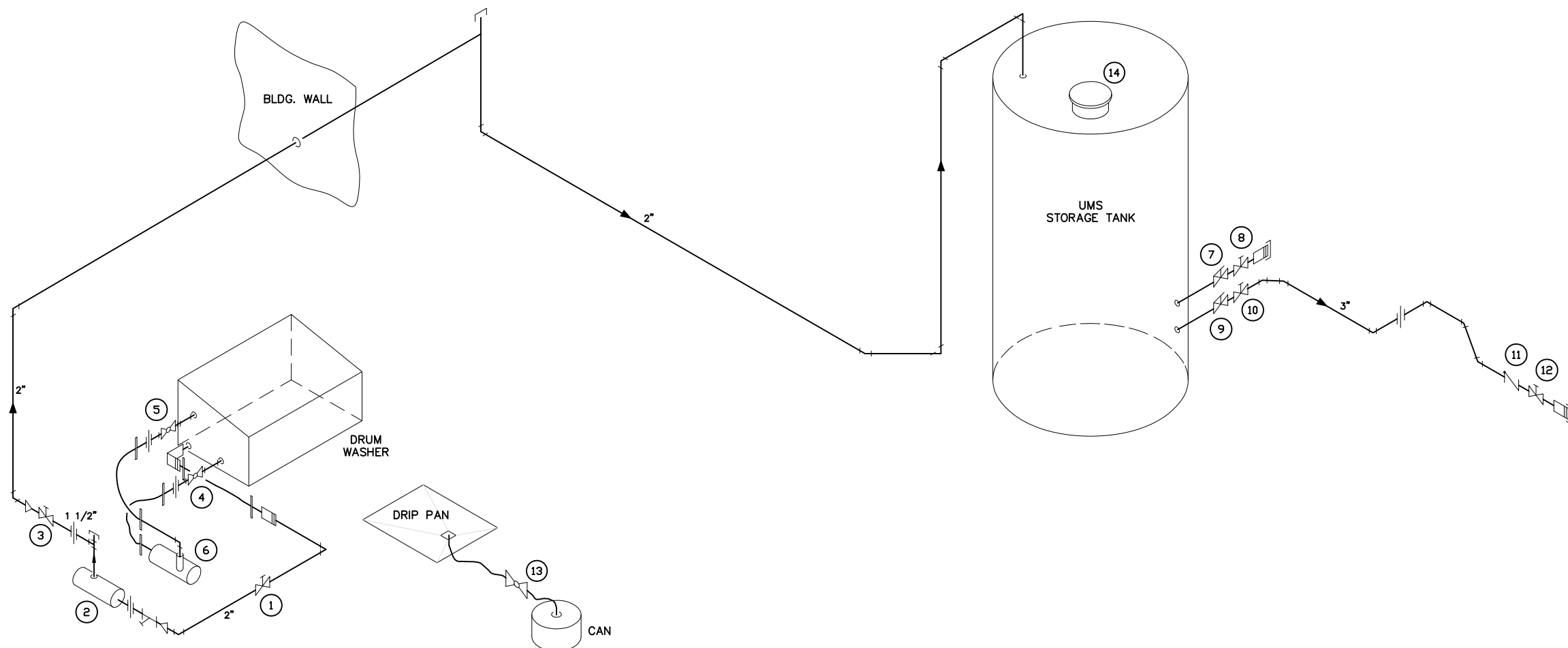
NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE AS SHOWN	BY CMA	CHKD RAB	APPROVED	OPERATIONS	DATE
					3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-4100-300	A	

Exhibit D2-8

Used Solvent Piping Diagram

Exhibit D2-8



SPENT PARTS WASHER SOLVENT PIPING SCHEMATIC

NO SCALE

GENERAL NOTES

1. PIPING CONFIGURATION AS INDICATED WAS FIELD VERIFIED ON 3/27/23.
2. NUMBERS IN CIRCLES INDICATE TAGS ATTACHED TO EQUIPMENT OR FITTINGS AS SHOWN.
3. NON-PERMITTED TANKS AND EQUIPMENT MAY CHANGE.
4. ACTUAL PIPING CONFIGURATION MAY VARY DUE TO MAINTENANCE AND/OR UPKEEP OF FACILITY.

SYMBOL LIST

	CAMLOC COUPLING
	90° CAMLOC COUPLING
	GATE VALVE
	EMERGENCY VALVE
	BALL VALVE
	CHECK VALVE
	AUTOMATIC VACUUM BREAKER
	STRAINER
	PUMP
	REDUCER/INCEASER
	THREADED UNION
	CAP
	HOSE CLAMP
	FLEXIBLE HOSE
	PIPE PENETRATION/ATTACHMENT TO EQUIPMENT
	DIRECTION OF FLOW
	FLANGED CONNECTION
	JOINT

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

EQUIPMENT AND FITTING SCHEDULE

①	2" THREADED VALVE
②	SPENT PARTS WASHER SOLVENT TANK PUMP
③	1 1/2" THREADED VALVE
④	1 1/2" THREADED VALVE
⑤	1 1/4" THREADED VALVE
⑥	SPENT PARTS WASHER SOLVENT RECIRCULATION PUMP
⑦	3" THREADED EMERGENCY VALVE
⑧	3" THREADED VALVE
⑨	3" THREADED EMERGENCY VALVE
⑩	3" THREADED VALVE
⑪	3" THREADED CHECK VALVE
⑫	3" THREADED VALVE
⑬	1 1/2" THREADED VALVE
⑭	EMERGENCY PRESSURE RELIEF VENT

TITLE
SPENT PARTS CLEANER SOLVENT PIPING SCHEMATIC
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

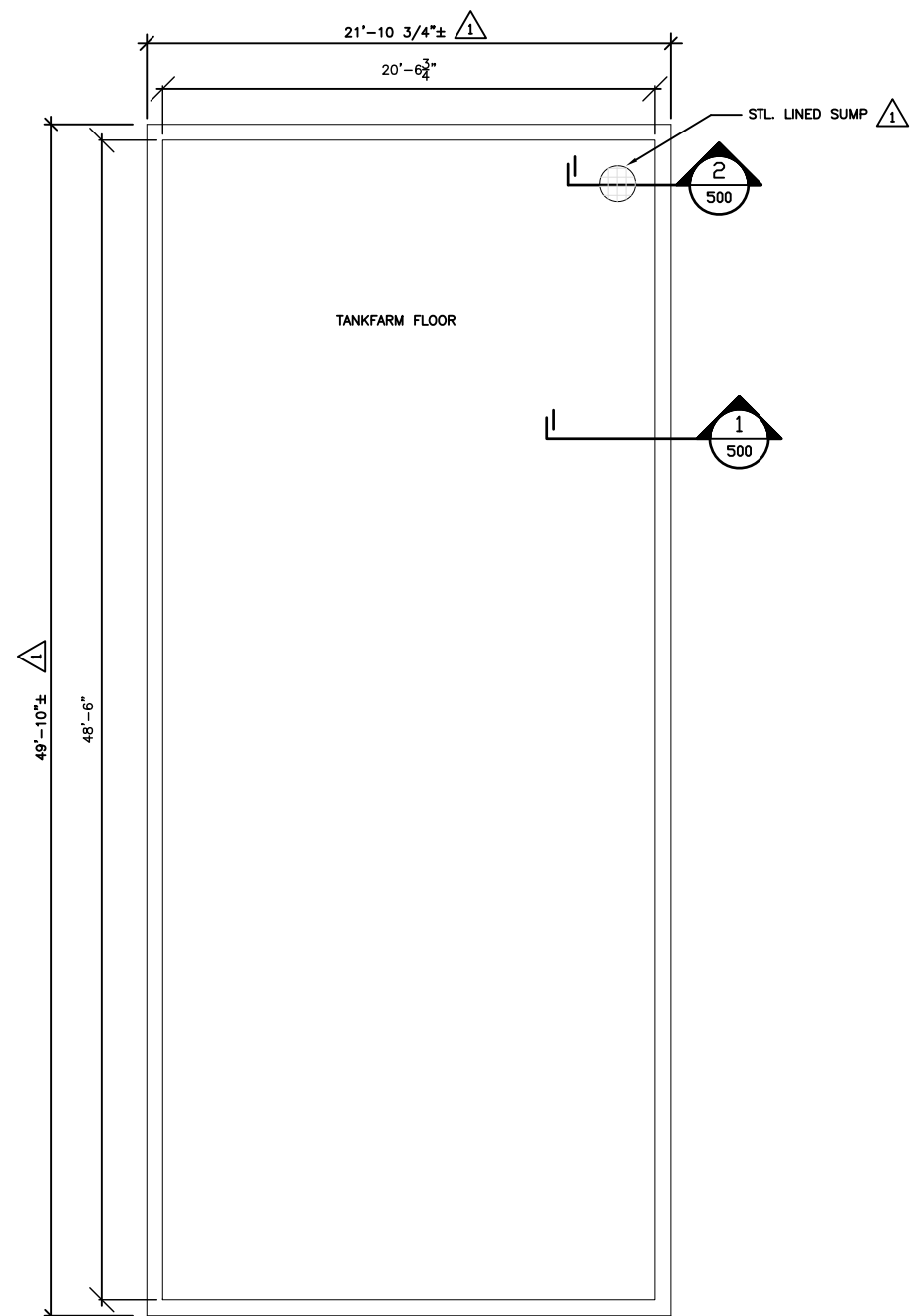
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					

SCALE	NO SCALE	BY	CMA	CHKD	RAB	APPROVED	OPERATIONS	DATE
								3-3-95
SERVICE CENTER LOCATION	FARGO, ND.	SC-DWG. NO.	7122-4100-301	REV. NO.	A			

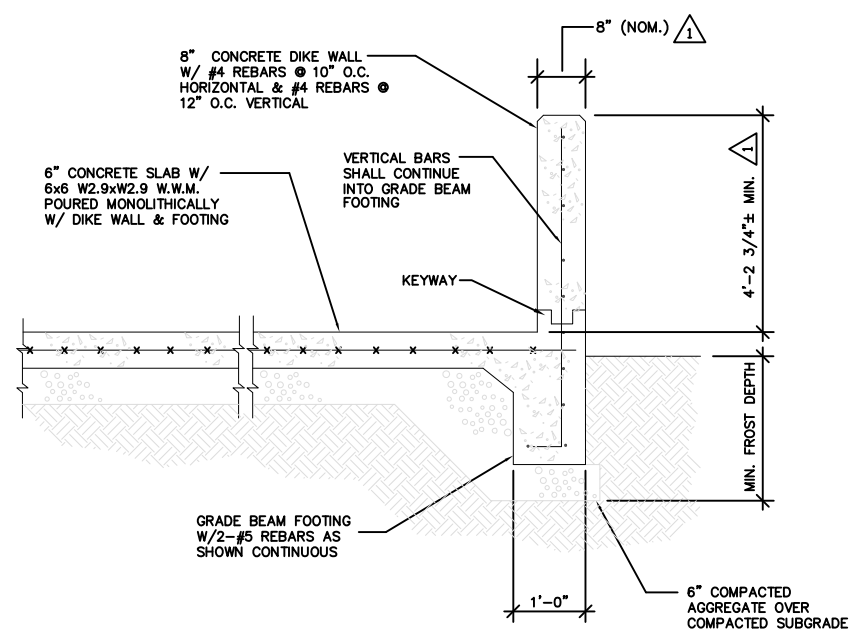
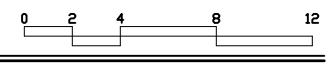
2-25-95 9:40AM LAPB2020.DWG 9462.2

Exhibit D2-9

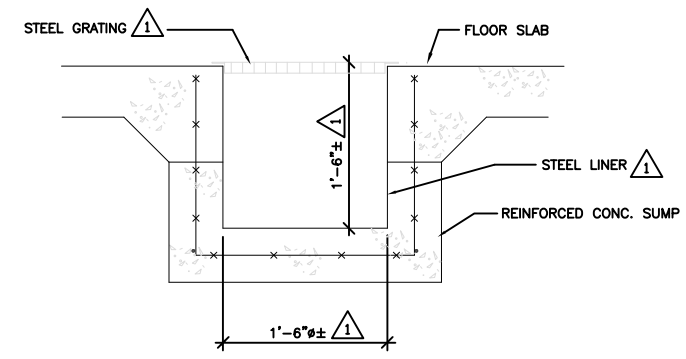
Tank Farm Plan and Sections



TANKFARM PLAN



1 TANKFARM SLAB AND DIKE WALL SECTION
500 TYPICAL CONSTRUCTION NO SCALE



2 SUMP SECTION
500 TYPICAL CONSTRUCTION NO SCALE

Exhibit D2-9

GENERAL NOTES

- 1 INDICATES AS-BUILT MEASUREMENT OR FIELD VERIFICATION OF EXISTING CONDITION ON 12-7-94.
- 2. DETAILS INDICATED AS TYPICAL CONSTRUCTION IDENTIFY TYPICAL SAFETY-KLEEN CONSTRUCTION PRACTICES WHICH WERE NOT FIELD VERIFIED UNLESS SPECIFICALLY INDICATED.

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
3-PACK TANKFARM
PLAN AND SECTIONS
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					

SCALE AS SHOWN	BY TDD	CHKD RAB	APPROVED	OPERATIONS	DATE 3-3-95
SERVICE CENTER LOCATION	FARGO, ND.	SC-DWG. NO.	7122-4100-500	REV. NO.	A

Exhibit D2-10

Tank Farm Secondary Containment Calculations

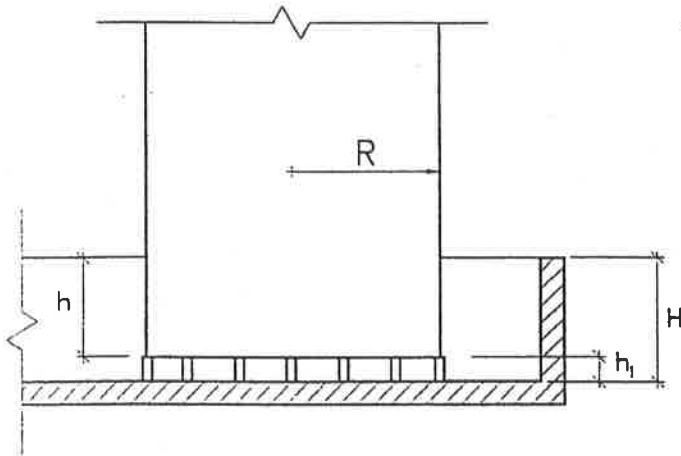
CONSULTING ENGINEERS
Mechanical • Electrical • Civil • Environmental

4812 SANTANA CIRCLE, COLUMBIA, MO. 65203

Client _____
Project No. 9462.2 Date 3-3-95
Project Title FARGO, ND. - CONTAINMENT CALCS.
Subject 3-PACK TANKFARM
Designer TYJ Cx By CMA Prelim _____ Final SD

SECONDARY CONTAINMENT CALCULATIONS

3-PACK TANKFARM



VERTICAL STORAGE TANK
FLAT BOTTOM

NO SCALE

CONCRETE DIKED TANKFARM- CONTAINING
TWO 12,000 GAL. VERTICAL STORAGE TANKS.
TANKFARM FLOOR IS SLIGHTLY SLOPED TOWARDS
A STEEL LINED SUMP.

REFERENCE: S-K DWG. NO. 118303-LAPB500-0
AND FIELD DATA COLLECTED 12-7-94.

CONTAINMENT PROVIDED BY DIKED AREA.

NOTE: SLOPED FLOOR AND SUMP VOLUME NOT
INCLUDED (CONSERVATIVE).

DATA:

L (INSIDE WALL LENGTH)	=	48.50'
W (INSIDE WALL WIDTH)	=	20.56'
H (INSIDE WALL HEIGHT)	=	4.23'
R (TANK RADIUS)	=	5.25'
h ₁ (TANK SUPPORT HEIGHT)	=	0.50'
h (TANK SEGMENT HEIGHT)	=	3.73'
RAINFALL*	=	4.2 in.

TANK SIZES:

TWO VERT. 12,000 GAL. NOM., 10'-6"Ø, FLAT BOTTOM

FORMULAS USED

$$\text{TANK SEGMENT HEIGHT} = h = H - h_1$$

$$\text{DIKE CONTAINMENT VOLUME} = (L) \times (W) \times (H) \times (7.48 \text{ GAL/CF})$$

$$\text{TANK DISPLACEMENT VOLUME} = (\pi R^2 h) \times (7.48 \text{ GAL/CF}) \times (\text{NO. OF TANKS})$$

$$\text{MISC. DISPLACEMENT VOLUME: PUMPS, SUPPORTS, PIPING, ETC.} = 2 \% \text{ OF DIKE VOLUME}$$

$$\text{LOCAL RAINFALL ALLOWANCE} = (\text{RAINFALL}/12) \times (L) \times (W) \times (7.48 \text{ GAL/CF})$$

NOTE: RAINFALL FROM U.S. DEPT. OF COMMERCE TECH. PAPER NO. 40
USE 24 HOUR MAXIMUM RAINFALL PER TYP. 25 YEAR PERIOD.

SECONDARY CONTAINMENT CALCULATIONS
3-PACK TANKFARM

(a)	DIKE CONTAINMENT VOLUME = (48.50') x (20.56') x (4.23') x (7.48 GAL/CF)	<u>31.551</u>	<u>GAL.</u>
(b)	PAD DISPLACEMENT VOLUME =	<u>N/A</u>	<u>GAL.</u>
(c)	TANK DISPLACEMENT VOLUME = (π) x (5.25') ² x (3.73') x (7.48 GAL/CF) x (2 TANKS)	<u>4.832</u>	<u>GAL.</u>
(d)	MISC. DISPLACEMENT VOLUME = (0.03) x (31,551 GAL)	<u>947</u>	<u>GAL.</u>
(e)	NET DIKE CONTAINMENT VOLUME = a - b - c - d	<u>25.772</u>	<u>GAL.</u>
(f)	VOLUME OF LARGEST TANK WITHIN DIKED AREA = 12,000 GAL. VERTICAL STORAGE TANK	<u>12.000</u>	<u>GAL.</u>
(g)	LOCAL RAINFALL ALLOWANCE = (4.2"/12) x (48.50') x (20.56') x (7.48 GAL/CF)	<u>2.611</u>	<u>GAL.</u>
	TOTAL EXCESS CONTAINMENT VOLUME = e - f - g	<u>11.161</u>	<u>GAL.</u>

THEREFORE, 3-PACK TANKFARM SECONDARY CONTAINMENT IS ADEQUATE.

Exhibit F-1

Example Weekly Safety Equipment Inspection



CO Safety Security Inspection

Form Code: 29

Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO Safety Security Inspection Instructions	
Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.	
CO Safety Security Inspection Items	
Perimeter fences - check for evidence of failure (e.g., broken ties, corrosion, holes, distortion, other)	
Gates/External Warehouse Doors - Check for evidence of failure (e.g., locking mechanism, broken ties, corrosion, holes, distortion, direct access doors working properly, other).	
Warning signs - check for evidence of failure (e.g. missing, faded, other).	
Exit Signs - Check for evidence of failure (e.g., missing sign, illumination, lamp bulbs, battery backup, other).	
Exits/Firelanes/Evacuation Routes - Check that all routes are clear or unobstructed.	
Lighting System - Check for evidence of failure (e.g. expired lamps, effectiveness, location, other).	
Emergency Lighting System - Check for evidence of failure (e.g., expired lamps, battery backup, effectiveness, other).	
Accessibility of Safety Equipment/Protective Gear - Check for evidence of availability (e.g.,	

hardhats, faceshields, goggles, safety glasses, boots, gloves, aprons, uniforms, duct tape, absorbents, other).	
Adequate Supply of Safety Equipment/Protective Gear - Check for evidence of availability (e.g., cleanliness, inventory available is adequate, in the correct location, correct type of equipment, other).	
Condition of Safety Equipment - Check for evidence of failure (e.g., review PPE for damage or excessive wear, other).	
Breathing Apparatus Accessibility - Check for evidence of availability (e.g. SCBA respirators, equipment, other).	
Breathing Apparatus Adequate Supply/Full Charge - Check for evidence of availability (e.g., SCBA tanks, charged, other).	
Breathing Apparatus Condition - Check for evidence of failure (e.g., SCBA damage, other).	
First Aid Kits - Check for evidence of availability (e.g., adequate inventory, correct location, other).	
Bloodborne Pathogen Kits - Check for evidence of availability (e.g., adequate inventory, correct location, correct type, other).	
Emergency Eyewashes - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, malfunctioning drain, leaking, correct location, adequate type and inventory, other).	
Emergency Showers - Check for evidence of failure (e.g., disconnected or malfunctioning valves, inadequate pressure, inaccessible, leaking, correct location, adequate type, adequate inventory, other).	
Internal/External Communication - Check for evidence of failure (e.g., inadequate supply of phones or radios, malfunctioning intercom,	

telephones not working properly, emergency alarm does not work, phone moved from proper location, other).	
Fire Extinguishers - Check for evidence of failure (e.g., overdue inspection, correct location, correct type, not charged, inaccessible, adequate inventory, other).	
Absorbent Supply - Check for evidence of availability (e.g., adequate inventory, correct location, correct type, other).	
Recovery Drum Supply - Check for evidence of availability (e.g., adequate inventory, correct location, correct type, other).	
Respirators and Cartridges - Check for evidence of availability (e.g., adequate APR inventory, correct location, correct type, other).	
Fire Suppression System Accessibility - Check for evidence of failure (e.g., monitors, pull stations, alarms, other).	
Fire Suppression System Operable - Check for evidence of failure (e.g., test, other).	
Water Lines/Hydrants - Check for evidence of failure (e.g., blocked, broken, other).	
Alarm Systems - Check for evidence of failure (e.g., test, other).	
Fire Blankets - Check for evidence of availability (e.g., adequate inventory, correct location, other).	
Strainer on Fire Suppression System - Check for evidence of failure (e.g., functioning as intended, other).	
Surveillance System/Guard Service - Check for evidence of failure (e.g., equipment or service provided and functioning properly, other).	
Supplied Air Delivery System and Reserve - Check for evidence of failure (e.g., system operational, equipment functioning, other).	

Decontamination Equipment/Spill Clean-up Equipment - Check for evidence of availability (e.g., adequate supply of shovels, mops, cleaning solvents, available inventory, correct location, correct type, other).	
Portable Sump Pumps - Check for evidence of availability (e.g., adequate inventory, functioning properly, correct location, correct type, other).	
Gasoline Pumps - Check for evidence of failure (e.g., broken parts, leaks, other).	
Loud Speakers - Check for evidence of failure (e.g., test, other).	
Chocked Wheels on Parked Vehicles - Check for evidence of failure (e.g., chocks not used, missing, deteriorated, other).	
Cylinders Secure - Check for evidence of failure (e.g., properly stored, secured, chained, other).	
Ventilation Operable - Check for evidence of failure (e.g., system working as intended, other).	
Fall Protection - Check for evidence of availability (e.g., adequate inventory, integrity of equipment, other).	
Electrical Boxes - Check for evidence of failure (e.g., closed, not blocked, marked properly, other).	
Emergency Contact Info Posted - Check for evidence of availability (e.g., up-to-date postings, location requirement, other).	
Hearing Protection Available - Check for evidence of availability (e.g., type appropriate per location, other).	
Housekeeping - Check for evidence of failure (e.g., blocked egress, proper storage, procedure followed, other).	
Portable Compressor - Check for evidence of availability (e.g., adequate inventory,	

functioning properly, other).	
Lime Supply - Check for evidence of availability (e.g., adequate inventory, other).	
QC Lab Hood - Check for evidence of failure (e.g., functioning properly, other).	
Rolloff Parking Area - Check for evidence of failure (e.g., housekeeping, staging, other).	
Dumpster/Outside Containers - Check for evidence of failure (e.g., housekeeping, condition, appropriate use and storage, other)	
Stormwater Collection System - Check for evidence of failure (e.g., functioning properly, damaged equipment, integrity, other).	
Rally Point - Check for evidence of failure (e.g., location identified, communication, other).	
Visitor Log - Check for evidence of failure (e.g., available, communication, proper use, other).	
Contingency Plan - Check for evidence of failure (e.g., available, up-to-date, communication, other).	
Wind Instrument/Wind Sock - Check for evidence of failure (e.g., operational, functioning properly, not broken, other).	
Compliance Footer	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	

Exhibit F-2

Reserved

Exhibit F-3

Example Tank System Inspection



CO Tank Systems Inspection

Form Code: 27

Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO Tank Systems Inspection Instructions	
Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.	
CO Tank Systems Inspection Items	
Tanks - Check for evidence of failure (e.g., leaks, rusty or loose anchoring, distortion, cleanliness, paint failure, other). Insulation - check for any damage or deterioration that may allow moisture intrusion.	
Pipes/Piping Supports - Check for evidence of failure (e.g., leaks, distortion, corrosion, paint failure, other).	
Valves - Check for evidence of failure (e.g., disconnected, corrosion, sticking, leaks, other).	
Fittings/Hose Connections - Check for evidence of failure (e.g., leaks, loose, disconnected, corrosion, other).	
Liquid Level - Check for acceptable level and level guages working correctly. (e.g., high level max, permitted volume, level guage legible, other).	
Secondary Containment - Check for interior and exterior for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, corrosion, erosion, other and excess liquid or debris, fire hazards, or other issues).	
Dike drain valves - Are valves closed and in	

good working condition?	
For double-wall tanks is interstitial monitoring equipment in good working condition and is the interstitial space free of liquid?	
Sumps - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).	
Bonding and Grounding - Check for evidence of failure (e.g., loose, broken, corrosion or deterioration, other).	
Transfer Equipment/Pump and Pump Motors - Check for availability and condition (e.g., pumps, filters, strainers, hoses, leaks, overheating, other).	
Communication and Alarm System - Check for evidence of failure (e.g., test function, siren, strobe, other).	
Satellite Accumulation Containers - Check for evidence of failure (e.g., container open, >55 gallons, label, other).	
Manways, Hatches, Nipples, Other Openings, Ladders - Check for evidence of failure (e.g., leaks, condition, corrosion, closure, other).	
Pressure Relief Valves (PRV)/ Flame Arrestors - Check for evidence of failure (e.g., condition, corrosion, other).	
Tanks marked with the words "Hazardous Waste" or "Used Oil" - Check for appropriate markings.	
Tanks not used marked as "Out of Service" - Check for appropriate markings.	
Tanks marked as to the contents - Check for appropriate markings (e.g., "Used Oil", "Non-Haz Only").	
Monitoring Equipment/Level Indicators/Overfill Prevention Equipment - Check that equipment is in good working condition or for evidence of failure (e.g., actuate equipment/alarms to	

confirm operation, pressure and temperature gauges, level indicators, sticking, condensation, disconnected, other).	
Loading/ Unloading Areas - Check condition of area (e.g., no free liquid, ponding or wet spots, available spill equipment, spill equipment location, spill kit supply and inventory is adequate, containment deterioration, leaks, pad condition, valve access box, housekeeping, other).	
Tank System Safety - Is the system free of any conditions that need to be addressed for continued safe operation?	
Connection Box/Drip Trays and Buckets - Are the connection box and all drip trays and buckets free of liquids or saturated absorbents, and all material properly collected and disposed?	
Site Generated Waste - debris, used absorbents, used PPE, aerosols, etc. - Check for evidence of failure (waste not containerized, proper storage location, container type, container label, other).	
Spill Equipment - Check that spill equipment is available, at the correct location, equipment supply and inventory is adequate, equipment is in good condition clean and ready for use.	
Ladders/platforms/walkways/egress pathways on or within tank or containment - Check for evidence of damage, corrosions, proper operation, pathways clear, doors/gates operable.	
Compliance Footer	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	

Exhibit F-4

Reserved

Exhibit F-5

Example Container Storage Area Inspection



CO CSA Inspection

Form Code: 28

Compliance Header	
Inspector Name	
Area of Inspection	
Inspection Date and Time	
CO CSA Inspection Instructions	
Note condition of inspection items. If item does not apply to an area, mark N/A. All unsatisfactory findings must be explained below. Include any repairs, changes or other remedial actions required or performed.	
CO CSA Inspection Items	
Container Placement and Stacking - Check for evidence of failure (e.g., containers on pallets, pallets too high, unstable, other).	
Sealing of Containers - Check for evidence of failure (e.g., containers not closed or sealed, open).	
Labeling of Containers - Check for evidence of failure (e.g., no label, improper label, content, other).	
Container Integrity - Check for evidence of failure (e.g., condition, bulging, leaks, rust, corrosion, other). Containers do not have waste/staining on the outside which would require cleaning or overpacking.	
Pallets - Check for evidence of failure (e.g., broken, loose, condition).	
Doors - Check for evidence of failure (e.g., indoor area, broken or not working as intended).	
Base/ Foundation/ Roof - Check for evidence of failure (e.g., cracked, gaps, other).	
Berms/ Racks - Check for evidence of failure (e.g., cracks, gaps, broken, other).	

Site Generated Waste - debris, used absorbents, used PPE, aerosols, etc. - Check for evidence of failure (e.g., waste not containerized, proper storage location, container type, container label, other).	
Exit Signs - Check for evidence of failure (e.g. missing, lamps, battery backup, other).	
Aisle Space - Check for evidence of failure (e.g., minimum 2 ft required, other).	
Containment Area - Check for evidence of failure (e.g., secondary containment, curbing, floor, cracks, deterioration, ponding or wet spots, other).	
Sumps - Check for evidence of failure (e.g., cracks, ponding or wet spots, pitting or deterioration, other).	
Loading/ Unloading Areas - Check condition of area (e.g., no free liquid, ponding or wet spots, available spill equipment, spill equipment location, spill kit supply and inventory is adequate, containment deterioration, leaks, pad condition, valve access box, housekeeping, other).	
Communication and Alarm System - Check for evidence of failure (e.g., test function, siren, strobe, other).	
Storage Capacity - Check for acceptable limit (e.g., area or permit restrictions, type restriction, volume limit, other).	
Bonding and Grounding - Check for evidence of failure (e.g., loose, broken, corrosion or deterioration, other).	
Pumps - Check for evidence of failure (e.g., deterioration or broken, leaks, other).	
Inventory Age - Check for acceptable limit (e.g., within area limits, permit restrictions, other).	
Satellite Accumulation Containers - Check for evidence of failure (e.g., container open, >55	

gallons, label, other).	
Spill Equipment - Check that spill equipment is available, clean, and ready for use. Spill equipment is placed in the correct location. Spill equipment includes the correct types of equipment in sufficient quantities.	
Additional Comments or Notes	
Comments	
Compliance Footer	
Inspector Signature	
Attach Photo	
Inspection Overall Assessment	

EXAMPLE

Exhibit F-6

Reserved

Exhibit F-7

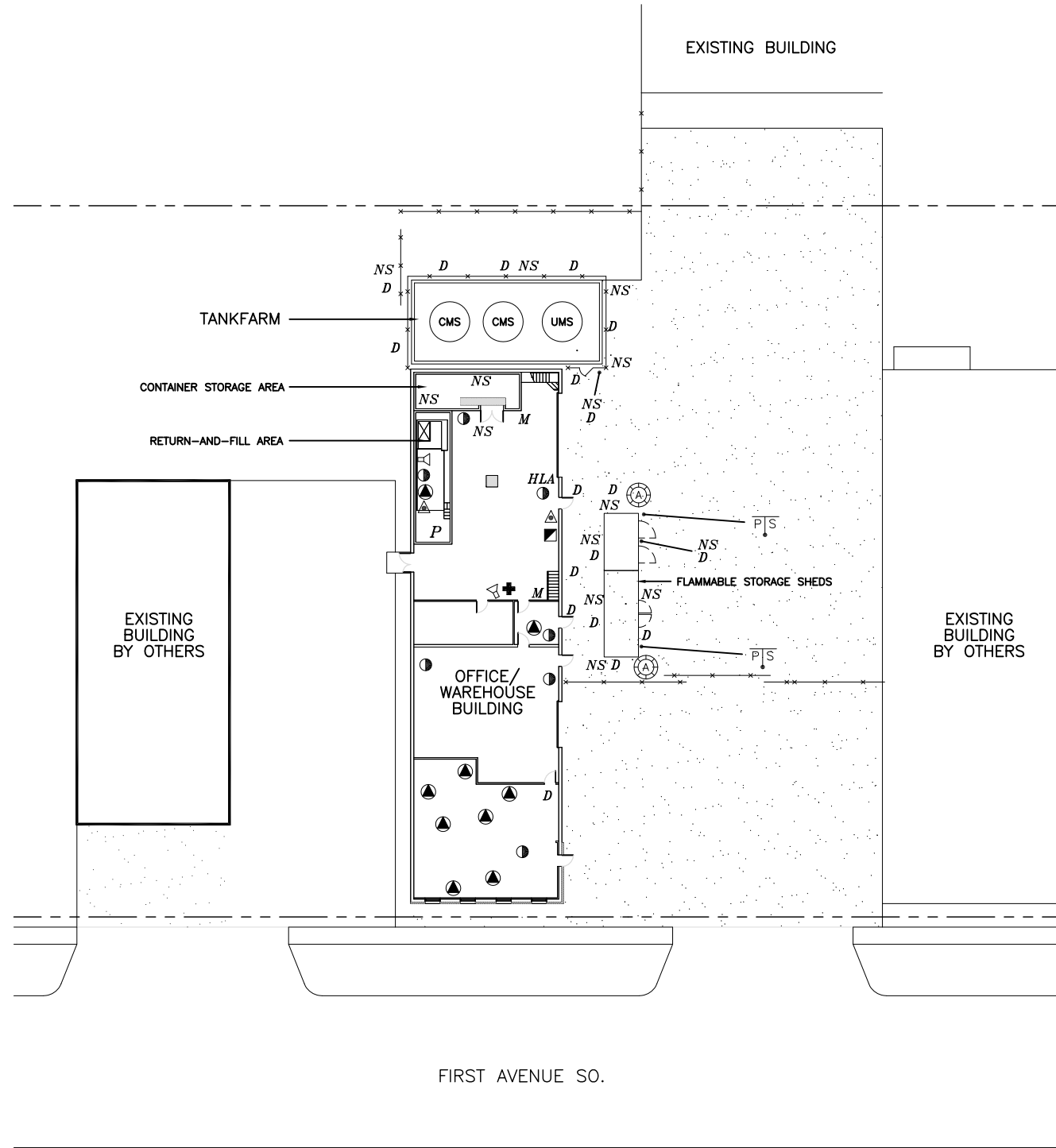
Emergency Equipment Inventory

**Safety-Kleen Fargo
Facility Emergency Equipment**

Description	Location	Quantity	Capabilities
Dry Chemical Fire Extinguishers-Hand held (type ABC)	Office area, warehouse, storage shed, return and fill shed	7	Able to extinguish type A, B, and C fires
First Aid Kits	Office/warehouse area	1	Provides items used to give basic medical attention
Shower	Office area, warehouse area	1	Decontaminate plant personnel in the event of a spill or release of harmful material
Eye wash station	Warehouse area, at return and fill	1	Provide a means of rinsing possibly harmful substances from the eyes and skin
Telephones/paging system	Office/warehouse area, return and fill	6	Alert personnel of an on-site emergency or spill incident, evacuation orders and general in-plant communications (may be cellular phones)
Alert horn/strobe light	Tank farm	1	Sounds and flashes when tanks are at 95% capacity
Panic Button (internal alert only)	Return and fill area and tank farm panel	1	Alerts personnel of an on-site emergency or spill incident
Spill Kits / Absorbents	Tank farm, warehouse, return and fill areas	2	Able to contain and absorb spilled liquids

Exhibit F-8

Location Map of Emergency Equipment



SITE PLAN

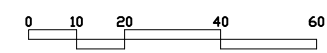


Exhibit F-8

GENERAL NOTES

- EMERGENCY EQUIPMENT AS INDICATED WAS FIELD VERIFIED ON 3/27/23.

LEGEND

- DRY CHEMICAL FIRE EXTINGUISHER - HAND HELD TYPE (ABC)
- FIRST-AID KIT
- EYEWASH ONLY OR HANDSPRAY
- SPILL BOX/ABSORBENT MATERIAL
- TELEPHONE W/INTERCOM
- HYDRANT - WATER
- ALERT (HORN)
- SPRINKLER ALARM
- PULL STATION
- PANIC BUTTON
- HLA HIGH LEVEL ALARM
- D DANGER SIGN "DANGER UNAUTHORIZED PERSONEL KEEP OUT" OR "DANGER AUTHORIZED PERSONNEL ONLY"
- NS NO SMOKING
- M MEZZANINE
- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FUT - FUTURE TANK

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE EMERGENCY EQUIPMENT LOCATION PLAN
1537 FIRST AVE. SOUTH
FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
42 LONGWATER DR. NORWELL, MA. 02061
PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	TDD	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-002	A	

Exhibit F-9

Example Inspection Schedule

**Exhibit F-9
Inspection Schedule**

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	<ul style="list-style-type: none"> Overdue inspection, inadequately charged, inaccessible Recharge required 	Weekly Annual
	Eyewash	<ul style="list-style-type: none"> Disconnected, malfunctioning valves, pressure, inaccessible 	Weekly
	First Aid Kit	<ul style="list-style-type: none"> Inadequate inventory 	Weekly
	Spill Cleanup Equipment	<ul style="list-style-type: none"> Inadequate supply of absorbents, towels, shovels, mops empty drums 	Weekly
	Personal Protection Equipment	<ul style="list-style-type: none"> Inadequate supply of aprons, glasses, gloves 	Weekly
Security Equipment	Gates and locks	<ul style="list-style-type: none"> Sticking, corrosion, lack of warning signs 	Weekly
	Fence	<ul style="list-style-type: none"> Broken ties, holes or other breach in fence 	Weekly
Storage Tank System	Volume in Tank	<ul style="list-style-type: none"> Must never be more than 95% full 	Each Operating Day
	Tank Exterior	<ul style="list-style-type: none"> Rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion 	Each Operating Day
	High Level Alarms	<ul style="list-style-type: none"> Malfunctioning siren/strobe light Not properly calibrated 	Each Operating Day
	Volume Gauges	<ul style="list-style-type: none"> Disconnected, sticking, condensation 	Each Operating Day
	Shell Thickness	<ul style="list-style-type: none"> Corrosion, shell thinning 	
Storage Tank Secondary Containment	Bottoms and Walls	<ul style="list-style-type: none"> Cracks, debris, ponding, wet spots/stains, deterioration, leaks 	Each Operating Day
Waste Transfer Pumps and Hoses	Pumps/Seals	<ul style="list-style-type: none"> Leaks 	Each Operating Day
	Motors	<ul style="list-style-type: none"> Overheating 	Each Operating Day
	Fittings	<ul style="list-style-type: none"> Leaks 	Each Operating Day
	Valves	<ul style="list-style-type: none"> Leaks, sticking 	Each Operating Day
	Hose Connections and Fittings	<ul style="list-style-type: none"> Cracks, loose, leaks 	Each Operating Day
	Hose Body	<ul style="list-style-type: none"> Crushed, cracked, thin spots, leaks 	Each Operating Day
Return & Fill Station Loading/Unloading Area	Wet Dumpster	<ul style="list-style-type: none"> Excess sediment buildup, leaks, rust, split seams, distortion, deterioration, excess debris 	Each Operating Day
	Secondary Containment	<ul style="list-style-type: none"> Cracks, debris, ponding, wet spots/stains, deterioration, leaks 	Each Operating Day
Container Storage Area	Total Volume	<ul style="list-style-type: none"> Exceed permitted capacity 	Each Operating Day
	Condition of Drums	<ul style="list-style-type: none"> Missing or loose lids, labels missing, incomplete or incorrect labels, rust, leaks, distortion 	Each Operating Day
	Stacking / Placement / Aisle Space	<ul style="list-style-type: none"> Hazardous waste containers⁽¹⁾ not on pallets, unstable stacks, inadequate aisle space. ⁽¹⁾ Not transfer wastes, satellite accumulation, or 90-day storage wastes. 	Each Operating Day
Container Storage Area Loading/Unloading Area Secondary Containment	Curbing, Floor, Sump	<ul style="list-style-type: none"> Ponding/wet spots, deterioration, evidence of leaks 	Each Operating Day
Subpart BB Inspections of Waste Solvent, Return & Fill System	Non-welded connections, pumps, valves and non-welded tank fittings	<ul style="list-style-type: none"> Olfactory/visual evidence of leaks 	Each Operating Day
	Tank manway, pressure relief valve on top of tank	<ul style="list-style-type: none"> Olfactory/visual evidence of leaks (difficult to monitor) 	Annually
	Two 2" threaded connections on top of waste solvent tank	<ul style="list-style-type: none"> Olfactory/visual evidence of leaks (difficult to monitor) 	Annually
Subpart CC Inspections	Fixed roof and closure devices	<ul style="list-style-type: none"> Not closed under normal operations 	Annual
	Hazardous Waste Containers	<ul style="list-style-type: none"> Not closed and/or in DOT Spec Containers 	Weekly

Exhibit G-1

Contingency Plan

CONTINGENCY PLAN ABSTRACT

- PURPOSE:** This plan describes the proper actions 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 Branch General Manager is typically the Emergency Coordinator. The alternate Emergency Coordinators are listed at the end of the Contingency Plan.

EMERGENCY NOTIFICATIONS:

- Fargo Police Department 911
Or (701) 241-4493
- Fargo Fire Department 911
Or (701) 241-1540
- Sanford Medical Center (701) 417-2000
- Qualified Emergency Responder (24-Hours)¹ (800) 468-1760

¹ Safety-Kleen Systems maintains a contract with a primary emergency response contractor (currently Clean Harbors-subject to change). The initial notification for emergency response is to the Safety-Kleen Environmental Response phone number that is monitored by Clean Harbors Emergency Response Center, which takes the initial call and makes the appropriate internal notifications. Clean Harbors maintains emergency response teams within the Fargo area, so they will be contacted to provide emergency assistance during a release and/or cleanup. Assistance from other qualified emergency response teams may be requested if required.

CONTINGENCY PLAN
Safety-Kleen Systems, Inc.
1537 1st Avenue South
Fargo, ND

1. PURPOSE

The Contingency Plan describes the actions to be taken by each employee 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 materials to the air, soil, surface water, or ground water. The Contingency Plan is to be carried out immediately whenever there is a release of hazardous material that could threaten human health or the environment.

2. EMERGENCY COORDINATOR RESPONSIBILITIES

The Emergency Coordinator, or alternate 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 his alternate be unavailable. The Branch General Manager is typically the Emergency Coordinator the coordinator designates the alternate coordinator.

The Emergency Coordinator and alternate must be familiar with all aspects of this Contingency Plan, the operations and activities at the facility, 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. Their home addresses and telephone numbers, as well as the office telephone number, are listed in Exhibit G-2 in the Facility's RCRA Permit Application. At least one employee will be at the facility or on call to respond to an emergency situation at all times.

2.1 Responsibilities During an Emergency

Whenever there is an emergency situation that requires implementation of the Contingency Plan, the Emergency Coordinator (or alternate) will:

- a) Activate the internal facility communication system to notify all facility personnel;
- b) Notify Safety-Kleen's Qualified Emergency Responder using the 24-hour telephone number 800/468-1760, and
- c) Notify appropriate state or local agencies with designated response roles, if necessary.

Whenever there is a release, fire, or explosion, the Emergency Coordinator (or 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 must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous run-off).

The Emergency Coordinator and alternates have been adequately trained to respond to an emergency. They have references such as various staff members at the corporate office and the Safety Data Sheets to help them make decisions during an emergency. Safety Data Sheets corresponding to the Safety-Kleen Systems' solvent supplied for each of the permitted core streams are found in Exhibit G-3 in the Facility's RCRA Permit Application. Please note these SDS are subject to change and update as required. The current documents will be available via Safety-Kleen's website (www.safety-kleen.com) or via the company's internal website. The following table provides the name of each permitted waste stream and the corresponding name of the product that makes up the primary constituent.

Name of Permitted Waste	Name of Corresponding MSDS
Used Parts Washer Solvent, Tank Bottoms, Dumpster Sludge	Safety-Kleen Premium Solvent (Virgin and Recycled)
Used Immersion Cleaner	Safety-Kleen Immersion Cleaner and Cold Parts Cleaner Solvent
Paint Waste	Safety-Kleen Heavy Duty Lacquer Thinner, Multi-Use Lacquer Thinner

During an emergency, the Emergency Coordinator (or alternate) must take measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste storage areas at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers. A list of example employee emergency functions is included as Exhibit G-4 in the Facility's RCRA Permit Application.

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 must contact the Safety-Kleen's Environmental Compliance Manager. Either the Emergency Coordinator or the Environmental Compliance Manager shall report the incident. Appropriate remedial actions will be implemented to address contamination resulting from an emergency situation. The treatment, storage and/or disposal of any recovered waste, contaminated soil or surface water that results from an emergency situation must be arranged by Safety-Kleen and carried out as expeditiously as possible.

The 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. Exhibit F-7 Example Equipment List in the Facility's RCRA Permit Application provides a list of equipment to be on hand and Exhibit F-8 Emergency Equipment Plan indicates the locations the basic emergency equipment is located.

2.3 Reporting Responsibilities

If the Emergency Coordinator determines that the facility has had a release that could threaten human health or the environment outside the facility, the coordinator must report those findings as follows:

- a) If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities.
- b) The coordinator must immediately notify the Safety-Kleen Environmental Compliance Manager. The Safety-Kleen Environmental Compliance Manager, or the coordinator, will report the incident to the North Dakota Department of Environmental Quality (NDDEQ), SERB, and LEPC immediately, including the:
 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, to the extent known
 5. The extent of injuries, if any, and
 6. The possible hazards to human health, or the environment outside the facility.

The Emergency Coordinator (or alternate) must document the time, date, and details of any incident that requires the implementation of the Contingency Plan. If required, a written report will be provided to the NDDEQ. The report will 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);
- d) Name and quantity of material(s) involved;
- e) The extent of injuries, if any;
- f) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- g) Estimated quantity and disposition of recovered material that results from the incident.

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.
- b. The Emergency Coordinator contacts the Safety-Kleen Environmental Compliance Manager.
- c. Safety-Kleen's Environmental Compliance Manager or the facility's Emergency Coordinator will contact the NDDEQ.

2.5 Government Agencies and Local Authorities to Be Notified

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

Agency or Authority*	Rationale
Police Department	Notify if there is imminent danger to human health
Fire Department	Notify if there is a fire, uncontrolled spill, or other imminent danger
Hospital	Notify if there are any injuries
NDDEQ	Notify if there is a fire, uncontrolled spill, or other imminent danger
Qualified Emergency Responder	Call to assist with remedial action after a release

*Phone numbers may be found in the Facility's RCRA Permit Application Exhibit G-2 –
Emergency Information for Service Center.

3. EMERGENCY RESPONSE PROCEDURES

Response actions to be taken in specific emergency situations are described in the sections that follow. Employees must assess the possible hazards to human health or the environment resulting from a release or fire by visually inspecting the area, reviewing Safety Data Sheets for the material released, and estimating the extent of the release and identifying the material to which it was released (e.g., soil, waste and/or air). Hazards must be assessed to make relevant decisions as to the appropriate personal protective equipment necessary to respond to an emergency.

3.1 Minor Spills

Minor spills that occur within secondary containment, and do not involve a release of material to the environment normally do not require implementation of the Contingency Plan. Procedures for addressing minor spills are summarized in this section. If a spill should occur while pouring spent solvent into a dumpster or filling drums 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, the material will be collected and appropriately managed. 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 material spills on a paved area, it will generally be collected with a wet/dry vacuum, pump, sorbent sheets, and/or granular absorbent. The free liquids (if any) and/or sorbents will be containerized and shipped to a permitted hazardous waste management facility for treatment/disposal.
- b) If the material spills on an unpaved area, attempts to recover any free liquids will be employed as in "a" above. Free liquids, sorbent material, and any contaminated soil must be containerized and shipped to a permitted hazardous waste management facility for treatment/disposal.

If a spill occurs while moving or delivering containers outside of the warehouse, the response actions described in 'a' and 'b' above must be followed. Spills inside the warehouse, Return and Fill, and the paint waste 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 may be opened to improve the ventilation in the confined area. If flammable material is spilled in a non-explosion rated area or is flowing in such, all sources of ignition (e.g., thermostats or light switches) are left in the same position (either on or off) as at the time of the spill. Following the instructions of the appropriate Safety Data Sheet (if the released material is a Safety-Kleen product), the worker will enter the area wearing appropriate personal protective equipment and containerize the liquid, and return it to storage.

Cleanups are completed only when the workers have cleaned themselves and the emergency equipment with soap and water, or other suitable solvent as needed. All minor spills must be reported to the Safety-Kleen Environmental Compliance Manager. The Safety-Kleen

Environmental Compliance Manager or the Emergency Coordinator will contact the NDDEQ if required.

3.2 Major Spills

Any spill which cannot be completely remediated using the methods described in 'a' and 'b' of section 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 from this type of release 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 material, 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) and the Safety-Kleen Emergency Responder.
- e) Immediately recover, to the extent possible, the spilled material to reduce property and environmental damage. Material resulting from a release, fire, or explosion may be stored onsite in containers or in tanks to the fullest extent possible. Material which cannot be contained using the storage facilities on site may be contained in tanker trucks or other containers as necessary.

The Emergency Coordinator or alternate shall report any incident as soon as possible to the Safety-Kleen Qualified Emergency Responder using the 24-hour telephone number: 800/468-1760. The Emergency Coordinator or alternate may also be required to report the incident to the National Response Center (telephone: 800/424-8802) and NDDEQ (telephone 701/328-5150). Outside of business hours the State Radio should be contacted instead of NDDEQ (telephone 800/471-2121). An emergency cleanup response contractor may be dispatched if it is deemed necessary.

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

The person reporting a spill should be prepared to give his name, position, company name, and address and telephone number. The person reporting should also describe the material spilled

and, if possible, some estimate of the amount and the containment status, and specify any equipment needed.

Contaminated material resulting from remedial actions for major spills will be disposed of at a properly permitted treatment or disposal.

Every spill must be recorded in the corporate electronic system. Spill report forms and other appropriate information are reviewed with branch personnel to prevent similar spills from occurring in the future.

3.3 Response To Leaks Or Spills From Tanks (40 CFR 264.196(a-f))

- a) Stopping Waste Addition – Should a leak or spill occur from the tank Safety-Kleen personnel will immediately stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.
- b) Removing Waste –
 1. If the release was from the tank system, Safety-Kleen will, within 24 hours after detection of the leak or, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system. This can typically be accomplished by transferring material into containers or pumping into a tanker.
 2. If the material released was to a secondary containment system, all released materials will be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.
- c) Containment of Visible Releases – Safety-Kleen will conduct a visual inspection of the release. Safety-Kleen will prevent further migration of the leak or spill to the environment. Any contamination will be removed and disposed of properly.
- d) Notifications and Reports –
 1. A release to the environment, except as provided in paragraph (d)(2) of this section, will be reported to the NDDEQ. Unless already reported pursuant to 40 CFR Part 302, or is a leak or spill of hazardous waste exempted from the requirements by meeting the criteria of \leq one (1) pound, and is immediately contained and cleaned up.
 2. Within 30 days of detection of a release to the environment, Safety-Kleen will file a report containing the following information to the NDDEQ:
 - i. Likely route of migration of the release;
 - ii. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
 - iii. Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the

- NDDEQ as soon as they become available.
- iv. Proximity to down gradient drinking water, surface water, and populated areas; and
 - v. Description of response actions taken or planned.
- e) Provision of secondary containment, repair, or closure.
- 1. Safety-Kleen will satisfy the requirements of paragraphs 40 CFR 264.196 (e)(2) through (4) or the tank system will be closed
- f) Certification of Major Repairs – If the repairs to the tank system are extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), Safety-Kleen will obtain a certification by a qualified Professional Engineer in accordance with 40 CFR 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. The certification will be placed in the operating record and maintained until closure of the facility.

3.4 Fire Control Procedures

It is Safety-Kleen's policy that employees respond only to incipient fires; that is, those that can be immediately extinguished with a fire extinguisher. Any fire that cannot be immediately controlled, or which has the potential to become uncontrollable warrants implementation of the evacuation plan and the proper authorities will be contacted.

If a small fire occurs, personnel must act quickly with the fire extinguisher to put out the fire before it spreads, where possible, without undue threat to personnel safety. If it cannot be extinguished immediately, evacuate the facility and call the fire department. Potential guidelines for response authorities to consider during a fire are discussed below.

Spent Parts Washer Solvent (PWS) (Petroleum Naphtha) - PWS may be stored on the property in steel containers, typically 15 to 55 gallons, or in the 12,000 gallon tank in the tank farm (a second tank holds product petroleum naphtha). Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds. Fire extinguishing media include carbon dioxide, regular foam, dry chemical, water spray, or water fog. Vapors of petroleum naphtha exposed to a spark or open flame can flash at temperatures over 148° F. Bulked materials exhibit lower flashpoints due to contaminants. A petroleum naphtha fire can best be extinguished with foam. If foam is not available, sweeping the fire with water fog can cool it, directing the water spray to push the flames into a confined area, if possible. The flame should not be extinguished until the flow of the solvent has been stopped. Then attention should be directed immediately to extinguishing the flame. 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. Firefighting control for PWS would cover Tank Bottom Sediments and Dumpster Sludge.

Immersion Cleaner – Immersion Cleaner is stored on site in containers, typically 15 gallon steel drums. Decomposition and combustion materials may be toxic. Burning may produce nitrogen oxides, acid halides, carbon monoxide, and unidentified organic compounds. Fire extinguishing media include carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog. If able to do so, fire crews should cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Paint wastes and Gun Cleaner Waste – These waste streams are stored in steel containers typically from 5 gallon to 55 gallon in size. Decomposition and combustion materials may be toxic. Burning may produce phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds. Fire Extinguishing Media includes carbon dioxide, alcohol-resistant foam, dry chemical, or water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Dry Cleaning Perchloroethylene Wastes – This waste stream is generally not flammable, but can produce toxic substances, such as hydrogen chloride and carbon monoxide when exposed to very high temperatures (about 1200° F). Fire extinguishing media includes carbon dioxide, regular foam, dry chemical, water fog or water spray. Positive-pressure self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies. While the potential for Perchloroethylene Waste reaching a decomposition temperature is minimal, Safety-Kleen personnel and local authorities must be aware of the proper response procedures, should a fire affect the container storage area. Examples of potential response procedures are described below:

- 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 personal protective clothing
- e) Evacuate a 1,000-foot radius area endangered by the gas.

A fire in the container storage area can best be extinguished by foam, water fog, or water spray (mist).

3.4.1 Fire Control Procedures by Waste Storage Unit

3.4.1.1 Container Storage Area Warehouses - permitted storage area within the main warehouse

A fire in the container storage area can best be extinguished by ABC Dry Chemical, foam, water fog, or water spray.

Permitted Waste Streams – Containerized PWS, Paint Waste, Dry Cleaning Perchloroethylene Waste, and Immersion Cleaner.

A small fire can be assessed by Safety-Kleen personnel, and if deemed safe to do so, may be extinguished using a fire extinguisher. If the situation warrants, the fire department will be contacted for assistance. Safety-Kleen personnel will follow the evacuation plan and await the fire department's arrival. Safety-Kleen personnel will provide details on inventory and information assistance as needed.

Other fire response procedures include:

- f) Isolate the hazard area and deny entry to unauthorized personnel.
- g) Stay upwind; keep out of low areas.
- h) Ventilate closed spaces before entering them.
- i) Wear personal protective clothing
- j) Evacuate a 1,000-foot radius area endangered by the gas.

3.4.1.3 Return and Fill Drum Washing Area

A fire in the Return and Fill can best be extinguished with carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Permitted Waste Streams – All waste streams are mineral spirit based materials, these include Containerized PWS, Dumpster Sludge and Bulked PWS.

A small fire can be assessed by Safety-Kleen personnel and, if deemed safe to do so, may be extinguished using a fire extinguisher.

If the situation warrants, the fire department will be called in, Safety-Kleen personnel will follow the evacuation plan and await the fire department's arrival. Safety-Kleen personnel will provide details on inventory and information assistance as needed.

Other fire response procedures are described below:

- k) Isolate the hazard area and deny entry to unauthorized personnel.
- l) Stay upwind; keep out of low areas.
- m) Ventilate closed spaces before entering them.
- n) Wear personal protective clothing
- o) Evacuate a 1,000-foot radius area endangered by the gas.

3.4.1.4 Bulk Storage Tank Farm and Corresponding Tanker Loading/Offloading Area

A fire in the Bulk Storage Tank Farm or the Tanker Loading Offloading area next to it can best be extinguished with carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Permitted Waste Streams –Bulked PWS (area also has a tank of product PWS).

A small fire can be assessed by Safety-Kleen personnel and, if deemed safe to do so, may be extinguished using a fire extinguisher. All pumps and valves should be shut off, if possible. Vehicles can be pulled clear of the area if safe to do so.

If the situation warrants, the fire department will be called in, Safety-Kleen personnel will follow the evacuation plan and await the fire department's arrival. Safety-Kleen personnel will provide details on inventory and information assistance as needed.

If a fire in or near the tank farm occurs, regular foam, water fog and water spray will best extinguish the fire. It is suggested that the fire department responders cool any tanks, trucks, pipelines and containers with water to insure the fire does not spread.

Other fire response procedures are described below:

- 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 personal protective clothing
- e) Evacuate a 1,000-foot radius area endangered by the gas.

3.4.1.5 Container Truck Loading/Offloading

Trucks are loaded and unloaded in the paved lot. During this process palletized containers are either being loaded on to a truck, typically with a forklift, or containers are being offloaded from the truck and placed on pallets for storage or bulking. A fire could occur from an overheated engine, a spark or a chemical reaction. A fire during a container loading/offloading process can best be extinguished by ABC Dry Chemical, foam, water fog, or water spray.

Permitted Waste Streams – All containerized permitted waste streams could potentially be involved such as PWS, Paint Waste, DC Perchloroethylene Waste, DC Naphtha Waste and Immersion Cleaner. In addition, a variety of nonhazardous wastes and 10-Day transfer waste could be involved.

A small fire can be assessed by Safety-Kleen personnel and if deemed safe to do so, may be extinguished using a fire extinguisher. If possible, other containers or vehicles not involved with the fire can moved away from the problem containers.

If the situation warrants, the fire department will be called in, Safety-Kleen personnel will follow the evacuation plan and await the fire department's arrival. Safety-Kleen personnel will provide details on inventory and information assistance as needed.

Other fire response procedures are described below:

- 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 personal protective clothing
- e) Evacuate a 1,000-foot radius area endangered by the gas.

4 Explosion

Response actions to be taken in the event of an explosion or imminent threat of an explosion are:

- a) All facility personnel must immediately evacuate the area.
- b) The Emergency Coordinator must be notified. Due to the small size of the Facility, this notification will most often be by verbal notification if the Emergency Coordinator is onsite; or by telephone if offsite.
- c) The Emergency Coordinator will make the necessary notifications to the appropriate contacts/agencies listed in Exhibit G-2 in the Facility's RCRA Permit Application.
- d) If required, the Fargo Fire Department will be notified by Facility personnel, who will evacuate the area and await the Department's arrival. Upon arrival, the Fire Department Incident Commander will become the Site Incident Commander. Site personnel will provide details on inventory and site information to assist.

5 EVACUATION PLAN

Clearly marked exits exist in the warehouse and office area. Employees are trained to be aware of all potential escape routes. The site evacuation plan is shown in Exhibit G-5 in the Facility's RCRA Permit Application. Notice of evacuation will be made via the intercom system or by word of mouth. An evacuation is necessary when a release, fire, and/or explosion has occurred or has the potential to occur, or has the potential to generate irritating vapors, toxic vapors, or deplete oxygen. In addition, a release, fire, or explosion which has the potential to injure personnel through physical contact or by damaging structures will necessitate evacuation.

All guests and visitors are required to sign in at the office. If an evacuation of the site is required, the guest book will be used to determine if there are any guests or visitors that are unaccounted for. The Emergency Coordinator (or acting alternate) will take a head count at the meeting area.

When an uncontrolled fire or release has occurred, all personnel are to be evacuated from the area and assemble across First Avenue South, to assure that all personnel are accounted for and out of the hazardous area. At the time of evacuation to a safe area, the fire department must be notified immediately.

6 ARRANGEMENTS WITH EMERGENCY RESPONSE CONTRACTORS

The number to access an emergency responder is identified on the emergency information sheet (See Facility's RCRA Permit Application Exhibit G-2). This contractor will provide emergency assistance during a release and/or cleanup.

Copies of the current Contingency Plan are made available to the City of Fargo Police and Fire Departments, and the Sanford Medical Center. 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.

7 IMPLEMENTATION SCHEDULE

Any discrepancies or deficiencies found during the routine inspection must be corrected expeditiously to ensure that the problem does not lead to an environmental or human health hazard. The Branch General Manager has the overall responsibility to ensure that repairs determined necessary during a routine inspection are implemented. Where a hazard is imminent or an accident has already occurred, remedial action must be taken immediately. The Branch General Manager will consult with the corporate environmental and engineering staffs to design an implementation schedule for remedial action.

8 POST-EMERGENCY EQUIPMENT MAINTENANCE

Following its use, non-disposable personal protective and response equipment owned by Safety-Kleen will be decontaminated with a soap and water solution and thoroughly rinsed. The Emergency Coordinator will visually inspect Safety-Kleen's response equipment after decontamination for residual contamination, damage, excessive wear, and proper operation. If equipment shows signs of residual contamination, the Emergency Coordinator may request that the equipment be decontaminated again. If these procedures fail to decontaminate the particular item, the decision may be made to dispose of the item using the facility's standard handling, storing, and disposing procedures. If an emergency equipment item is damaged and cannot be repaired, the Emergency Coordinator will instruct the post-emergency maintenance personnel not to decontaminate the item and to dispose of the item using the proper procedures. The Emergency Coordinator will order replacement equipment for any disposed equipment and make arrangements to repair any inoperable equipment as soon as practicable.

9 AVAILABILITY AND REVISION OF THE CONTINGENCY PLAN

This plan and all revisions to the plan are kept at the facility and regularly updated throughout the operating life of the facility. Copies of this document, and any revisions, are provided to local authorities and organizations listed on the Emergency Information sheet (See Exhibit G-2 in the Facility's RCRA Permit Application) and they may be called upon to provide emergency services. In addition, this plan and all revisions to the plan are made readily available to employees working at the facility.

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

- The facility license is modified to allow new process wastes to be stored or treated, or applicable regulations are revised;
- The list or location of emergency equipment changes
- The facility changes in its design, construction, operation maintenance, or other circumstances in a way that:
 - Increases the potential for fires, explosions, or releases of hazardous constituents, or
 - Changes in the response necessary in an emergency.

- The names, addresses, or phone numbers of Emergency Coordinators change;
- The employee assigned to each emergency task changes; or
- The plan fails when implemented in an emergency

Exhibit G-2

Emergency Information Sheet

EMERGENCY INFORMATION FOR SAFETY-KLEEN SYSTEMS, INC.

1537 First Avenue South
 Fargo, North Dakota 58103
 Telephone: 701.557.9501 FAX: 701.237.0905
 EPA ID# NDD 000 716 738

A. Emergency Coordinators

Primary	Brian Larson 905 Orchard Park Drive Fargo, ND 58104	Office: 701.557.9501 Cell: 701.866.6624 Home: 701.205.4960
Alternate	Darrell Schlagel 3009 37 th Avenue SW Fargo, ND 58103	Office: 701.557.9501 Cell: 701.866.6627 Home: 701.232.1540

B. Emergency Notification Telephone Numbers

Internal	Safety-Kleen 24-Hr Emergency Response	800.468.1760
External	National Response Center 24-Hr Emergency North Dakota Department of Environmental Quality 24-Hour Emergency Number	800.424.8802 Business Hours: 710.328.5150 Outside Business hours: State Radio 800.471.2121

C. Emergency Team to be Notified

Fargo Fire Department	911 Or 701.241.1540
Fargo Police Department	911 Or 701.241.4493
Sanford Hospital	701.417.2000

D. Emergency Contractor

SK Emergency Response (maintains database of qualified contractors)	800.468.1760
--	--------------

Exhibit G-3

Safety-Kleen Product Safety Data Sheets

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).
Revision Date: 02/24/2022 Date of Issue: 01/26/1995 Supersedes Date: 10/29/2019 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Substance

Product Name: Safety-Kleen Premium Solvent (Virgin and Recycled)

CAS-No.: 64742-47-8

Product Code: 82658

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

SDS No.: 82658

1.2. Intended Use of the Product

Cleaning and degreasing metal parts. For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149
1-800-669-5740

www.safety-kleen.com

Supplier in Canada

Safety-Kleen Canada, Inc.
25 Regan Road
Brampton, Ontario L7A 1B2
Canada

1.4. Emergency Telephone Number

Emergency Number : 1-800-468-1760

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 4	H227
Skin Irrit. 2	H315
STOT SE 3	H336
Asp. Tox. 1	H304

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA) :



Signal Word (GHS-US/CA) :

Danger

Hazard Statements (GHS-US/CA) :

H227 - Combustible liquid.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness.

Precautionary Statements (GHS-US/CA) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 - Avoid breathing vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for



Safety-Kleen Premium Solvent (Virgin and Recycled)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P321 - Specific treatment (see section 4 on this SDS).

P331 - Do NOT induce vomiting.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.

403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Synonyms	Product Identifier	% *
Petroleum distillates, hydrotreated light	Distillates (petroleum), hydrotreated light / Distillates, petroleum, hydrotreated light / Hydrotreated light distillate / Kerosene, hydrotreated / Petroleum distillates, hydrotreated light (A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9-16 and boiling in the range of approximately 150-290°C.)	(CAS-No.) 64742-47-8	100

3.2. Mixture

Not applicable

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause drowsiness and dizziness. Causes skin irritation. May be fatal if swallowed and enters airways.

Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms: Repeated exposure may cause skin dryness or cracking.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible liquid. Will float and can be reignited on water surface.

Explosion Hazard: May form flammable or explosive vapor-air mixture.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds. If sulfur compounds are present in appreciable amounts, combustion products may include also H₂S and SO_x (sulfur oxides) or sulfuric acid.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid breathing (vapor, mist, spray). Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area. Eliminate ignition sources.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Technical Measures: Comply with applicable regulations. Take action to prevent static discharges.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: Strong oxidizers.

7.3. Specific End Use(s)

Cleaning and degreasing metal parts. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed.

Personal Protective Equipment: Gloves. Protective clothing. Safety glasses. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side shields.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, colorless to pale yellow
Odor	: Mild, hydrocarbon
Odor Threshold	: 30 ppm (based on Stoddard Solvent)
pH	: No data available
Evaporation Rate	: < 1 (butyl acetate = 1)
Melting Point	: -49 °C (-56.2 °F)
Freezing Point	: -43 °C (-45.4 °F)
Boiling Point	: 192 – 205 °C (377.6 – 401 °F)
Flash Point	: > 67 °C [Tagliabue(ASTM D-56)] (152.6 °F)
Auto-ignition Temperature	: 220 °C (428 °F)
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: 0.8 %
Upper Flammable Limit	: 6 %
Vapor Pressure	: 0.067 kPa (0.5 mmHg)[room temperature]
Relative Vapor Density at 20°C	: 5 (air = 1)
Relative Density	: No data available
Density	: ≈ 6.67 lb/gal
Specific Gravity	: 0.77 - 0.82 @ @ 16 °C (60 °F)



Safety-Kleen Premium Solvent (Virgin and Recycled)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Solubility	: Water: Insoluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
VOC content	: 100 % ; 6.4 to 6.7 LB/US gal; 770 to 800 g/l; As per 40 CFR Part 51.100(s); Consult with your state/local air pollution control agency and their rules and regulations for specific direction in your specific area.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability:

Combustible liquid. May form flammable or explosive vapor-air mixture.

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials:

Strong oxidizers.

10.6. Hazardous Decomposition Products:

None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

No additional information available

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause drowsiness or dizziness.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

Symptoms/Injuries After Ingestion: Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms: Repeated exposure may cause skin dryness or cracking.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Petroleum distillates, hydrotreated light (64742-47-8)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 2.11 mg/l/4h
Toluene (108-88-3)	

Safety-Kleen Premium Solvent (Virgin and Recycled)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

LD50 Oral Rat	2600 mg/kg
LD50 Dermal Rabbit	12000 mg/kg
LC50 Inhalation Rat	25.7 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

Safety-Kleen Premium Solvent (Virgin and Recycled) (64742-47-8)	
LC50 Fish 1	> 500 mg/l

12.2. Persistence and Degradability

Safety-Kleen Premium Solvent (Virgin and Recycled) (64742-47-8)	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Safety-Kleen Premium Solvent (Virgin and Recycled) (64742-47-8)	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name	: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES)
Identification Number	: NA1993
Packing Group	: III



Special Provisions: 49CFR173.150. Not regulated for transport in single packages less than 119 US Gal / 450 L (bulk package). Non-bulk packages are not regulated.

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Safety-Kleen Premium Solvent (Virgin and Recycled) (64742-47-8)	
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Skin corrosion or Irritation Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Aspiration hazard
Petroleum distillates, hydrotreated light (64742-47-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Safety-Kleen Premium Solvent (Virgin and Recycled)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

15.2. US State Regulations

California Proposition 65



WARNING: This product can expose you to Benzene, p-Dichlorobenzene, Ethylbenzene, Cumene, and Naphthalene, which are known to the State of California to cause cancer 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.ca.gov.

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Benzene (71-43-2)	X	X		X
Ethylbenzene (100-41-4)	X			
Naphthalene (91-20-3)	X			
Benzene, 1,4-dichloro- (106-46-7)	X			
Toluene (108-88-3)		X		
p-Dichlorobenzene (106-46-7)	X			
Cumene (98-82-8)	X			

15.3. Canadian Regulations

Petroleum distillates, hydrotreated light (64742-47-8)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 02/24/2022

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

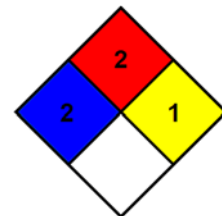
GHS Full Text Phrases:

Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness

NFPA Health Hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA Fire Hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA Reactivity Hazard : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



The information contained herein is correct to the best of our knowledge, information, and belief and is designed only as guidance for the handling, use, processing, storage, transportation, disposal, and release of the product. User assumes all risks incident to use of this product and shall determine the quality and suitability of the product for its use. Supplier offers no warranty, express or implied, whatsoever, including warranties of merchantability or fitness for a particular purpose or otherwise, and specifically disclaims any and all liability for incidental, consequential, or other damages arising out the use or misuse of the product. The information provided relates only to the specific material provided and may not be valid if used in combination with any other materials or process, unless specified herein.



Safety-Kleen Premium Solvent (Virgin and Recycled)

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

NA GHS SDS 2015 (Can, US)



Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

SDS ID: 82343

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

Product Code

5820, 5825, 6782

Synonyms

None

Product 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.

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

MANUFACTURER

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149
U.S.A.

SUPPLIER (in CANADA)

Safety-Kleen Canada, Inc.
25 Regan Road
Brampton, Ontario L7A 1B2
Canada

www.safety-kleen.com

Phone: 1-800-669-5740

Emergency Phone #: 1-800-468-1760

Issue Date

February 5, 2021

Supersedes Issue Date

February 5, 2020

Original Issue Date

July 20, 1989

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States

Flammable Liquids - Category 2

Aspiration Hazard - Category 1

Acute Toxicity - Oral - Category 4

Acute Toxicity - Dermal - Category 4

Acute Toxicity - Inhalation - Vapor - Category 2

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 1

Germ Cell Mutagenicity - Category 1B

Carcinogenicity - Category 1A

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity - Single Exposure - Category 1 (Central Nervous System, kidneys, liver, respiratory system, systemic toxicity, eyes, heart)

Specific Target Organ Toxicity - Single Exposure - Category 2 (Nervous System)

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2 (Nervous System, blood, liver, kidneys)

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Harmful if swallowed or in contact with skin.
Fatal if inhaled.
Causes skin irritation and serious eye damage.
May cause genetic defects and cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.
May cause respiratory irritation and drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. 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. Do not eat, drink or smoke when using this product.

Response

In case of fire: Use carbon dioxide, regular foam, dry chemical, water spray, or water fog. If exposed or concerned: Call a POISON CENTER or doctor/physician. 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 occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Call a POISON CENTER or doctor immediately for treatment advice.

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.

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
108-88-3	Toluene	0-60
64741-89-5	Distillates, petroleum, solvent-refined light paraffinic	0-60
8030-30-6	Naphtha	0-60
108-10-1	2-Pentanone, 4-methyl-	0-60
110-43-0	Methyl n-amyl ketone	0-60
78-93-3	Methyl ethyl ketone	0-60
107-87-9	Methyl propyl ketone	0-60
67-64-1	Acetone	0-60
100-41-4	Ethylbenzene	0-30
763-69-9	Ethyl 3-ethoxypropanoate	0-17
141-78-6	Ethyl acetate	0-17
108-65-6	Propylene glycol monomethyl ether acetate	0-17
108-21-4	Isopropyl acetate	0-17
123-86-4	n-Butyl acetate	0-17
110-19-0	Isobutyl acetate	0-17
1330-20-7	Xylenes (o-, m-, p- isomers)	0-15
67-63-0	Isopropyl alcohol	0-10
75-65-0	tert-Butyl alcohol	0-10
64-17-5	Ethyl alcohol	0-10
71-36-3	1-Butanol	0-10
71-23-8	n-Propanol	0-4
67-56-1	Methanol	0-4
127-18-4	Tetrachloroethylene	0-1
75-09-2	Methylene chloride	0-1
71-55-6	1,1,1-Trichloroethane	0-1

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

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 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. Call a POISON CENTER or doctor/physician immediately for treatment advice.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Fatal if inhaled, harmful if swallowed, Harmful in contact with skin. Causes skin irritation, central nervous system damage, liver damage, respiratory tract irritation, central nervous system depression, eye burns, kidney damage, blood 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, lung damage.

Indication of any immediate medical attention and special treatment needed

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

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special 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

Burning may produce: Phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

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.

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Special Protective Equipment and Precautions for Firefighters

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

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 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 shoes. Do not smoke while using this product. Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

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

Incompatible Materials

Combustible materials, strong acids, strong oxidizing materials, alkalis, reducing agents, reactive halogens, reactive metals

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Toluene	108-88-3
Alberta	50 ppm TWA ; 188 mg/m3 TWA; Substance may be readily absorbed through intact skin
British Columbia; Ontario; Nova Scotia; Prince Edward Island	20 ppm TWA
Manitoba	20 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	50 ppm TWA ; 188 mg/m3 TWA; Skin - potential for cutaneous absorption

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Northwest Territories; Nunavut	50 ppm TWA; 60 ppm STEL; Skin notation
Quebec	50 ppm TWAEV ; 188 mg/m3 TWAEV; Skin designation
Saskatchewan	50 ppm TWA; 60 ppm STEL; Potentially harmful after absorption through skin or mucous membranes
Yukon	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL Skin notation
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL; 500 ppm IDLH
OSHA (US):	200 ppm TWA; 300 ppm Ceiling
Naphtha	8030-30-6
Alberta	400 ppm TWA ; 1590 mg/m3 TWA
British Columbia	(reciprocal calculation method - see OHS Guideline G5.48-12)
New Brunswick	400 ppm TWA ; 1590 mg/m3 TWA
Northwest Territories; Nunavut; Saskatchewan	400 ppm TWA; 500 ppm STEL
Quebec	400 ppm TWAEV ; 1590 mg/m3 TWAEV
Yukon	400 ppm TWA (Rubber solvent and Coal tar) ; 1800 mg/m3 TWA (Rubber solvent and Coal tar) 500 ppm STEL (Rubber solvent and Coal tar) ; 2250 mg/m3 STEL (Rubber solvent and Coal tar)
NIOSH:	100 ppm TWA ; 400 mg/m3 TWA; 1000 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 400 mg/m3 TWA
2-Pentanone, 4-methyl-	108-10-1
Alberta; New Brunswick	50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 307 mg/m3 STEL
British Columbia; Northwest Territories; Nova Scotia; Ontario; Prince Edward Island	20 ppm TWA; 75 ppm STEL
Manitoba	20 ppm TWA
Nunavut; Saskatchewan	50 ppm TWA; 75 ppm STEL
Quebec	50 ppm TWAEV ; 205 mg/m3 TWAEV; 75 ppm STEV ; 307 mg/m3 STEV
Yukon	100 ppm TWA ; 410 mg/m3 TWA; 125 ppm STEL ; 510 mg/m3 STEL Skin notation

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

ACGIH:	20 ppm TWA; 75 ppm STEL
NIOSH:	50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 300 mg/m3 STEL; 500 ppm IDLH
OSHA (US):	100 ppm TWA ; 410 mg/m3 TWA
Methyl n-amyl ketone	110-43-0
Alberta; New Brunswick	50 ppm TWA ; 233 mg/m3 TWA
British Columbia; Manitoba; Nova Scotia; Prince Edward Island	50 ppm TWA
Northwest Territories; Nunavut; Saskatchewan	50 ppm TWA; 60 ppm STEL
Ontario	25 ppm TWA ; 115 mg/m3 TWA
Quebec	50 ppm TWAEV ; 233 mg/m3 TWAEV
Yukon	100 ppm TWA ; 465 mg/m3 TWA; 150 ppm STEL ; 710 mg/m3 STEL
ACGIH:	50 ppm TWA
NIOSH:	100 ppm TWA ; 465 mg/m3 TWA; 800 ppm IDLH
OSHA (US):	100 ppm TWA ; 465 mg/m3 TWA
Methyl ethyl ketone	78-93-3
Alberta; New Brunswick	200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL
British Columbia	50 ppm TWA; 100 ppm STEL
Manitoba	200 ppm TWA
Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	200 ppm TWA; 300 ppm STEL
Quebec	50 ppm TWAEV ; 150 mg/m3 TWAEV; 100 ppm STEV ; 300 mg/m3 STEV
Yukon	200 ppm TWA ; 590 mg/m3 TWA; 250 ppm STEL ; 740 mg/m3 STEL
ACGIH:	200 ppm TWA; 300 ppm STEL
NIOSH:	200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL; 3000 ppm IDLH
OSHA (US):	200 ppm TWA ; 590 mg/m3 TWA
Methyl propyl ketone	107-87-9
Alberta; New Brunswick	200 ppm TWA ; 705 mg/m3 TWA; 250 ppm STEL ; 881 mg/m3 STEL
British Columbia	150 ppm TWA; 250 ppm STEL

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Northwest Territories; Nunavut; Saskatchewan	200 ppm TWA; 250 ppm STEL
Nova Scotia; Ontario; Prince Edward Island	150 ppm STEL
Quebec	150 ppm TWAEV ; 530 mg/m3 TWAEV
Yukon	200 ppm TWA ; 700 mg/m3 TWA; 250 ppm STEL ; 875 mg/m3 STEL
ACGIH:	150 ppm STEL
NIOSH:	150 ppm TWA ; 530 mg/m3 TWA; 1500 ppm IDLH
OSHA (US):	200 ppm TWA ; 700 mg/m3 TWA
Ethylbenzene	100-41-4
Alberta; New Brunswick	100 ppm TWA ; 434 mg/m3 TWA; 125 ppm STEL ; 543 mg/m3 STEL
British Columbia; Manitoba; Nova Scotia; Ontario; Prince Edward Island	20 ppm TWA
Northwest Territories; Nunavut; Saskatchewan	100 ppm TWA; 125 ppm STEL
Quebec	100 ppm TWAEV ; 434 mg/m3 TWAEV; 125 ppm STEV ; 543 mg/m3 STEV
Yukon	100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL 800 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 435 mg/m3 TWA
Acetone	67-64-1
Alberta	500 ppm TWA ; 1200 mg/m3 TWA; 750 ppm STEL ; 1800 mg/m3 STEL
British Columbia; Nova Scotia; Ontario; Prince Edward Island	250 ppm TWA; 500 ppm STEL
Manitoba	250 ppm TWA
New Brunswick	500 ppm TWA ; 1188 mg/m3 TWA; 750 ppm STEL ; 1782 mg/m3 STEL
Northwest Territories; Nunavut; Saskatchewan	500 ppm TWA; 750 ppm STEL
Quebec	500 ppm TWAEV ; 1190 mg/m3 TWAEV; 1000 ppm STEV ; 2380 mg/m3 STEV

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Yukon	1000 ppm TWA ; 2400 mg/m3 TWA; 1250 ppm STEL ; 3000 mg/m3 STEL
ACGIH:	250 ppm TWA; 500 ppm STEL
NIOSH:	250 ppm TWA ; 590 mg/m3 TWA; 2500 ppm IDLH (10% LEL)
OSHA (US):	1000 ppm TWA ; 2400 mg/m3 TWA
Ethyl 3-ethoxypropanoate	763-69-9
Ontario	50 ppm TWA ; 300 mg/m3 TWA
Ethyl acetate	141-78-6
Alberta; New Brunswick	400 ppm TWA ; 1440 mg/m3 TWA
British Columbia	150 ppm TWA
Manitoba; Nova Scotia; Ontario; Prince Edward Island	400 ppm TWA
Northwest Territories; Nunavut; Saskatchewan	400 ppm TWA; 500 ppm STEL
Quebec	400 ppm TWAEV ; 1440 mg/m3 TWAEV
Yukon	400 ppm TWA ; 1400 mg/m3 TWA; 400 ppm STEL ; 1400 mg/m3 STEL
ACGIH:	400 ppm TWA
NIOSH:	400 ppm TWA ; 1400 mg/m3 TWA; 2000 ppm IDLH (10% LEL)
OSHA (US):	400 ppm TWA ; 1400 mg/m3 TWA
Ethylbenzene	100-41-4
ACGIH:	20 ppm TWA
NIOSH:	100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL 800 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 435 mg/m3 TWA
Propylene glycol monomethyl ether acetate	108-65-6
British Columbia	50 ppm TWA; 75 ppm STEL
Ontario	50 ppm TWA ; 270 mg/m3 TWA
Isopropyl acetate	108-21-4
Alberta	100 ppm TWA ; 416 mg/m3 TWA; 200 ppm STEL ; 832 mg/m3 STEL

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

British Columbia; Northwest Territories; Nunavut; Ontario; Saskatchewan	100 ppm TWA; 200 ppm STEL
Manitoba	100 ppm TWA
New Brunswick	250 ppm TWA ; 1040 mg/m3 TWA; 310 ppm STEL ; 1290 mg/m3 STEL
Nova Scotia; Prince Edward Island	100 ppm TWA; 150 ppm STEL
Quebec	250 ppm TWAEV ; 1040 mg/m3 TWAEV; 310 ppm STEV ; 1290 mg/m3 STEV
Yukon	250 ppm TWA ; 950 mg/m3 TWA; 310 ppm STEL ; 1185 mg/m3 STEL
ACGIH:	100 ppm TWA; 150 ppm STEL
NIOSH:	1800 ppm IDLH
OSHA (US):	250 ppm TWA ; 950 mg/m3 TWA
n-Butyl acetate	123-86-4
Alberta; New Brunswick	150 ppm TWA ; 713 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL
British Columbia	20 ppm TWA
Manitoba	50 ppm TWA
Northwest Territories; Nunavut; Ontario; Saskatchewan	150 ppm TWA; 200 ppm STEL
Nova Scotia; Prince Edward Island	50 ppm TWA; 150 ppm STEL
Quebec	150 ppm TWAEV ; 713 mg/m3 TWAEV; 200 ppm STEV ; 950 mg/m3 STEV
Yukon	150 ppm TWA ; 710 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL
ACGIH:	50 ppm TWA; 150 ppm STEL
NIOSH:	150 ppm TWA ; 710 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL 1700 ppm IDLH (10% LEL)
OSHA (US):	150 ppm TWA ; 710 mg/m3 TWA
Isobutyl acetate	110-19-0
Alberta; New Brunswick	150 ppm TWA ; 713 mg/m3 TWA
British Columbia; Ontario	150 ppm TWA
Manitoba	50 ppm TWA

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Northwest Territories; Nunavut; Saskatchewan	150 ppm TWA; 188 ppm STEL
Nova Scotia; Prince Edward Island	50 ppm TWA; 150 ppm STEL
Quebec	150 ppm TWAEV ; 713 mg/m3 TWAEV
Yukon	150 ppm TWA ; 700 mg/m3 TWA; 187 ppm STEL ; 875 mg/m3 STEL
ACGIH:	50 ppm TWA; 150 ppm STEL
NIOSH:	150 ppm TWA ; 700 mg/m3 TWA; 1300 ppm IDLH (10% LEL)
OSHA (US):	150 ppm TWA ; 700 mg/m3 TWA
Xylenes (o-, m-, p- isomers)	1330-20-7
Alberta; New Brunswick	100 ppm TWA ; 434 mg/m3 TWA; 150 ppm STEL ; 651 mg/m3 STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	100 ppm TWA; 150 ppm STEL
Manitoba	100 ppm TWA
Quebec	100 ppm TWAEV ; 434 mg/m3 TWAEV ; 50 ppm STEV ; 651 mg/m3 STEV
Yukon	100 ppm TWA ; 435 mg/m3 TWA; 150 ppm STEL ; 650 mg/m3 STEL Skin notation
ACGIH:	100 ppm TWA; 150 ppm STEL
OSHA (US):	100 ppm TWA ; 435 mg/m3 TWA
tert-Butyl alcohol	75-65-0
Alberta; New Brunswick	100 ppm TWA ; 303 mg/m3 TWA
British Columbia; Manitoba; Nova Scotia; Ontario; Prince Edward Island	100 ppm TWA
Northwest Territories Nunavut; Saskatchewan	100 ppm TWA; 125 ppm STEL
Quebec	100 ppm TWAEV ; 303 mg/m3 TWAEV
Yukon	100 ppm TWA ; 300 mg/m3 TWA; 150 ppm STEL ; 450 mg/m3 STEL
ACGIH:	100 ppm TWA

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

NIOSH:	100 ppm TWA ; 300 mg/m ³ TWA; 150 ppm STEL ; 450 mg/m ³ STEL 1600 ppm IDLH
OSHA:	100 ppm TWA ; 300 mg/m ³ TWA
1-Butanol	71-36-3
Alberta	20 ppm TWA ; 60 mg/m ³ TWA
British Columbia	15 ppm TWA; 30 ppm Ceiling
Manitoba	20 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	50 ppm Ceiling ; 152 mg/m ³ Ceiling; Skin - potential for cutaneous absorption
Northwest Territories; Nunavut; Saskatchewan	20 ppm TWA; 30 ppm STEL
Nova Scotia; Ontario; Prince Edward Island	20 ppm TWA
Quebec	50 ppm Ceiling ; 152 mg/m ³ Ceiling; Skin designation
Yukon	50 ppm Ceiling ; 150 mg/m ³ Ceiling; Skin notation
ACGIH:	20 ppm TWA
Isopropyl alcohol	67-63-0
Alberta	200 ppm TWA ; 492 mg/m ³ TWA; 400 ppm STEL ; 984 mg/m ³ STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	200 ppm TWA; 400 ppm STEL
Manitoba	200 ppm TWA
New Brunswick	400 ppm TWA ; 983 mg/m ³ TWA; 500 ppm STEL ; 1230 mg/m ³ STEL
Quebec	400 ppm TWAEV ; 985 mg/m ³ TWAEV; 500 ppm STEV ; 1230 mg/m ³ STEV
Yukon	400 ppm TWA ; 980 mg/m ³ TWA; 500 ppm STEL ; 1225 mg/m ³ STEL Skin notation
ACGIH:	200 ppm TWA; 400 ppm STEL
NIOSH:	400 ppm TWA ; 980 mg/m ³ TWA; 500 ppm STEL ; 1225 mg/m ³ STEL 2000 ppm IDLH (10% LEL)
OSHA (US):	400 ppm TWA ; 980 mg/m ³ TWA
Ethyl alcohol	64-17-5
Alberta; New Brunswick	1000 ppm TWA ; 1880 mg/m ³ TWA

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

British Columbia	1000 ppm STEL
Northwest Territories; Nunavut; Saskatchewan	1000 ppm TWA; 1250 ppm STEL
Nova Scotia; Ontario: Prince Edward Island	1000 ppm STEL
Quebec	1000 ppm TWAEV ; 1880 mg/m3 TWAEV
Yukon	1000 ppm TWA ; 1900 mg/m3 TWA; 1000 ppm STEL ; 1900 mg/m3 STEL
ACGIH:	1000 ppm STEL
NIOSH:	1000 ppm TWA ; 1900 mg/m3 TWA; 3300 ppm IDLH (10% LEL)
OSHA (US):	1000 ppm TWA ; 1900 mg/m3 TWA
1-Butanol	71-36-3
ACGIH:	20 ppm TWA
NIOSH:	50 ppm Ceiling ; 150 mg/m3 Ceiling; Potential for dermal absorption 1400 ppm IDLH (10% LEL)
OSHA (US):	100 ppm TWA ; 300 mg/m3 TWA
Methanol	67-56-1
Alberta	200 ppm TWA ; 262 mg/m3 TWA; 250 ppm STEL ; 328 mg/m3 STEL Substance may be readily absorbed through intact skin
British Columbia; Northwest Territories; Nunavut	200 ppm TWA; Skin notation; 250 ppm STEL
Manitoba; Nova Scotia	200 ppm TWA; Skin - potential for cutaneous absorption Skin - potential significant contribution to overall exposure by the cutaneous route
New Brunswick	200 ppm TWA ; 262 mg/m3 TWA; 250 ppm STEL ; 328 mg/m3 STEL Skin - potential for cutaneous absorption
Ontario	200 ppm TWA; 250 ppm STEL; Danger of cutaneous absorption
Prince Edward Island	200 ppm TWA; 250 ppm STEL
Quebec	200 ppm TWAEV ; 262 mg/m3 TWAEV; 250 ppm STEV ; 328 mg/m3 STEV; Skin designation
Saskatchewan	200 ppm TWA; 250 ppm STEL; Potentially harmful after absorption through skin or mucous membranes
Yukon	200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 310 mg/m3 STEL Skin notation

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

ACGIH:	200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA:	200 ppm TWA ; 260 mg/m3 TWA
NIOSH:	200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 325 mg/m3 STEL Potential for dermal absorption; 6000 ppm IDLH
n-Propanol	71-23-8
Alberta	200 ppm TWA ; 492 mg/m3 TWA; 400 ppm STEL ; 984 mg/m3 STEL
British Columbia	100 ppm TWA
Manitoba	100 ppm TWA; Skin - potential for cutaneous absorption
New Brunswick	200 ppm TWA ; 492 mg/m3 TWA; 250 ppm STEL ; 614 mg/m3 STEL Skin - potential for cutaneous absorption
Northwest Territories; Nunavut; Saskatchewan	200 ppm TWA; 400 ppm STEL
Nova Scotia; Ontario; Prince Edward Island	100 ppm TWA
Quebec	200 ppm TWAEV ; 492 mg/m3 TWAEV; 250 ppm STEV ; 614 mg/m3 STEV; Skin designation
Yukon	200 ppm TWA ; 500 mg/m3 TWA; 250 ppm STEL ; 625 mg/m3 STEL Skin notation
ACGIH:	100 ppm TWA
NIOSH:	200 ppm TWA ; 500 mg/m3 TWA; 250 ppm STEL ; 625 mg/m3 STEL Potential for dermal absorption; 800 ppm IDLH
OSHA (US):	200 ppm TWA ; 500 mg/m3 TWA
Tetrachloroethylene	127-18-4
Alberta; New Brunswick	25 ppm TWA ; 170 mg/m3 TWA; 100 ppm STEL ; 678 mg/m3 STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	25 ppm TWA; 100 ppm STEL
Manitoba	25 ppm TWA
Quebec	25 ppm TWAEV ; 170 mg/m3 TWAEV; 100 ppm STEV ; 685 mg/m3 STEV

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Yukon	100 ppm TWA ; 670 mg/m3 TWA; 150 ppm STEL ; 1000 mg/m3 STEL Skin notation
ACGIH:	25 ppm TWA; 100 ppm STEL
NIOSH:	150 ppm IDLH
OSHA (US):	100 ppm TWA; 200 ppm Ceiling
Methylene chloride	75-09-2
Alberta; New Brunswick	50 ppm TWA ; 174 mg/m3 TWA
British Colombia	25 ppm TWA
Manitoba; Nova Scotia; Ontario; Prince Edward Island	50 ppm TWA
Northwest Territories	50 ppm TWA; 75 ppm STEL ; 63 ppm STEL (regulated under Methylene chloride)
Nunavut	50 ppm TWA; 75 ppm STEL (regulated under Dichloromethane); 63 ppm STEL
Quebec	50 ppm TWAEV ; 174 mg/m3 TWAEV
Saskatchewan	50 ppm TWA; 63 ppm STEL ; 75 ppm STEL (regulated under Dichloromethane)
Yukon	200 ppm TWA ; 700 mg/m3 TWA ; 720 mg/m3 TWA (regulated under Dichloromethane) 250 ppm STEL ; 870 mg/m3 STEL ; 200 ppm STEL (regulated under Dichloromethane); 720 mg/m3 STEL (regulated under Dichloromethane)
ACGIH:	50 ppm TWA
NIOSH:	2300 ppm IDLH
OSHA (US):	25 ppm TWA; 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) 125 ppm STEL (see 29 CFR 1910.1052)
1,1,1-Trichloroethane	71-55-6
Alberta; New Brunswick	350 ppm TWA ; 1910 mg/m3 TWA; 450 ppm STEL ; 2460 mg/m3 STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	350 ppm TWA; 450 ppm STEL
Manitoba	350 ppm TWA
Quebec	350 ppm TWAEV ; 1910 mg/m3 TWAEV; 450 ppm STEV ; 2460 mg/m3 STEV
Yukon	350 ppm TWA ; 1900 mg/m3 TWA; 440 ppm STEL ; 2400 mg/m3 STEL
ACGIH:	350 ppm TWA; 450 ppm STEL

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

NIOSH:	350 ppm Ceiling 15 min ; 1900 mg/m ³ Ceiling 15 min; 700 ppm IDLH
OSHA (US):	350 ppm TWA ; 1900 mg/m ³ TWA

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Toluene (108-88-3)

0.02 mg/l Medium: blood Time: prior to last shift of workweek Parameter: Toluene ; 0.03 mg/l Medium: urine Time: end of shift Parameter: Toluene ; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

2-Pentanone, 4-methyl- (108-10-1)

1 mg/l Medium: urine Time: end of shift Parameter: MIBK

Methyl ethyl ketone (78-93-3)

2 mg/l Medium: urine Time: end of shift Parameter: MEK (nonspecific)

Acetone (67-64-1)

25 mg/l Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

Ethylbenzene (100-41-4)

0.15 g/g creatinine Medium: urine Time: end of shift Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

Xylenes (o-, m-, p- isomers) (1330-20-7)

1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

Isopropyl alcohol (67-63-0)

40 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

Methanol (67-56-1)

15 mg/l Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

Tetrachloroethylene (127-18-4)

3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene ; 0.5 mg/l Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

Methylene chloride (75-09-2)

0.3 mg/l Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)

1,1,1-Trichloroethane (71-55-6)

40 ppm Medium: end-exhaled air Time: prior to last shift of workweek Parameter: Methyl chloroform ; 10 mg/l Medium: urine Time: end of workweek Parameter: Trichloroacetic acid (nonspecific, semi-quantitative); 30 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific, semi-quantitative) ; 1 mg/l Medium: blood Time: end of shift at end of workweek Parameter: Total trichloroethanol (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. Use explosion-proof equipment. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear splash resistant safety goggles with a faceshield. 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.

Skin Protection/Glove Recommendations

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

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

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, Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid.	Physical State	Liquid
Odor	Solvent odor.	Color	Colorless.
Odor Threshold	Not available	pH	Not available
Melting Point	-129 - -22 °C (-200 - -8 °F)	Boiling Point	56 - 172 °C (133 - 342 °F)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	3.7 (Similar product Butyl acetate = 1)	Flammability (solid, gas)	Flammable.
Autoignition Temperature	427 °C (800 °F)	Flash Point	<21 °C [Closed Cup.] (70 °F)
Lower Explosive Limit	1 vol% (Approximate)	Decomposition temperature	Not available
Upper Explosive Limit	13 vol% (Approximate)	Vapor Pressure	86 mm Hg @ 68 °F (20 °C)
Vapor Density (air=1)	2.2 - 3.9 (Approximate Air = 1)	Specific Gravity (water=1)	0.83 (Approximate Water = 1)
Water Solubility	(Slight)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	6.9 lb/gal (US Approximate)
Physical Form	Liquid.	Volatility	80 - 100 wt% (as per 40 CFR part 51.100(s))
Molecular Weight	Not available	OSHA Flammability Category	Flammable

Section 10 - STABILITY AND 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 6782

SDS ID: 82343

Possibility of Hazardous Reactions

Will not polymerize under normal temperature and pressure conditions.

Conditions to Avoid

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

Incompatible Materials

Acids, alkalis, oxidizing agents, reducing 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 if inhaled. May cause irritation, nausea, central nervous system effects. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin Contact

Harmful in contact with skin. Causes skin irritation.

Eye Contact

Causes serious eye damage.

Ingestion

May be fatal if swallowed and enters airways. Aspiration Hazard. Harmful if swallowed. May cause, throat irritation, nausea, vomiting, diarrhea.

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:

Toluene (108-88-3)

Oral LD50 Rat 2600 mg/kg; Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

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

Naphtha (8030-30-6)

Oral LD50 Rat >5 g/kg; Inhalation LC50 Rat 15000 ppm 4 h

2-Pentanone, 4-methyl- (108-10-1)

Oral LD50 Rat 2080 mg/kg; Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 2000 - 4000 ppm 4 h

Methyl n-amyl ketone (110-43-0)

Oral LD50 Rat 1600 mg/kg; Dermal LD50 Rabbit 12.6 mL/kg; Inhalation LC50 Rat 2000 - 4000 ppm 6 h

Methyl ethyl ketone (78-93-3)

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

Methyl propyl ketone (107-87-9)

Oral LD50 Rat 1600 mg/kg; Dermal LD50 Rat 6480 mg/kg; Inhalation LC50 Rat 2000 - 4000 ppm 4 h

Acetone (67-64-1)

Oral LD50 Rat 5800 mg/kg; Dermal LD50 Rabbit >15700 mg/kg; Inhalation LC50 Rat 50100 mg/m3 8 h

Ethylbenzene (100-41-4)

Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15400 mg/kg; Inhalation LC50 Rat 17.4 mg/L 4 h

Ethyl 3-ethoxypropanoate (763-69-9)

Oral LD50 Rat 5 g/kg; Dermal LD50 Rabbit >9500 mg/kg; Inhalation LC50 Rat >5.96 mg/L 6 h (no deaths occurred)

Ethyl acetate (141-78-6)

Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >18000 mg/kg; Inhalation LC50 Rat 4000 ppm 4 h

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Propylene glycol monomethyl ether acetate (108-65-6)

Oral LD50 Rat 8532 mg/kg; Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 16000 mg/m³ 6 h

Isopropyl acetate (108-21-4)

Oral LD50 Rat 3000 mg/kg; Dermal LD50 Rabbit >17436 mg/kg; Inhalation LC50 Rat 50600 mg/m³ 8 h

n-Butyl acetate (123-86-4)

Oral LD50 Rat 10768 mg/kg; Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 0.74 mg/L 4 h

Isobutyl acetate (110-19-0)

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

Xylenes (o-, m-, p- isomers) (1330-20-7)

Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit >4350 mg/kg; Inhalation LC50 Rat 29.08 mg/L 4 h

Isopropyl alcohol (67-63-0)

Oral LD50 Rat 1870 mg/kg; Dermal LD50 Rabbit 4059 mg/kg; Inhalation LC50 Rat 72600 mg/m³ 4 h

tert-Butyl alcohol (75-65-0)

Oral LD50 Rat 2200 mg/kg; Dermal LD50 Rabbit >2 g/kg (no deaths occurred); Inhalation LC50 Rat >10000 ppm 4 h

Ethyl alcohol (64-17-5)

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

1-Butanol (71-36-3)

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

n-Propanol (71-23-8)

Oral LD50 Rat 1870 mg/kg; Dermal LD50 Rabbit 4049 mg/kg; Inhalation LC50 Rat >13548 ppm 4 h

Methanol (67-56-1)

Oral LD50 Rat 6200 mg/kg; Dermal LD50 Rabbit 15840 mg/kg; Inhalation LC50 Rat 22500 ppm 8 h

Tetrachloroethylene (127-18-4)

Oral LD50 Rat 2629 mg/kg; Inhalation LC50 Rat 27.8 mg/L 4 h

Methylene chloride (75-09-2)

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

1,1,1-Trichloroethane (71-55-6)

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

Product Toxicity Data

Acute Toxicity Estimate

Dermal	1403.7248 mg/kg
Inhalation - Vapor	1.253 mg/L
Oral	499.1655 mg/kg

Immediate Effects

Fatal if inhaled, Harmful in contact with skin. 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, 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, blood damage, lung damage.

Irritation/Corrosivity Data

Eye burns, skin irritation, respiratory tract irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

May cause cancer.

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Toluene	108-88-3
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable))
2-Pentanone, 4-methyl-	108-10-1
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 101 [2013] (Group 2B (possibly carcinogenic to humans))
OSHA:	Present
Acetone	67-64-1
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Ethylbenzene	100-41-4
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))
DFG:	Category 4 (no significant contribution to human cancer)
OSHA:	Present
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))
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))
tert-Butyl alcohol	75-65-0
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Ethyl alcohol	64-17-5
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
DFG:	Category 5 (low carcinogenic potency)
n-Propanol	71-23-8

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Tetrachloroethylene	127-18-4
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 106 [2014] ; Monograph 63 [1995] ; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 3 (could be carcinogenic for man)
OSHA:	Present
NIOSH:	potential occupational carcinogen
Methylene chloride	75-09-2
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 110 [2017] ; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 5 (low carcinogenic potency)
OSHA:	Present
OSHA:	see 29 CFR 1910.1052
NIOSH:	potential occupational carcinogen
1,1,1-Trichloroethane	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))

May cause cancer.

Germ Cell Mutagenicity

May cause genetic defects.

Tumorigenic Data

No data available

Reproductive Toxicity

Available data characterizes this substance as a reproductive hazard.

Specific Target Organ Toxicity - Single Exposure

Central nervous system, respiratory system, kidneys, liver, systemic toxicity, eyes, heart.

Specific Target Organ Toxicity - Repeated Exposure

Nervous system, kidneys, liver, blood,

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

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 - Aquatic Toxicity

Toluene	108-88-3
Fish:	LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [Static] EPA ; EC50 48 h Daphnia magna 11.5 mg/L IUCLID
Distillates, petroleum, solvent-refined light paraffinic	64741-89-5
Fish:	LC50 96 h Oncorhynchus mykiss >5000 mg/L
Invertebrate:	EC50 48 h Daphnia magna >1000 mg/L IUCLID
Naphtha	8030-30-6
Fish:	LC50 96 h Lepomis macrochirus 9.2 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID
2-Pentanone, 4-methyl-	108-10-1
Fish:	LC50 96 h Pimephales promelas 496 - 514 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 400 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 170 mg/L IUCLID
Methyl n-amyl ketone	110-43-0

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Fish:	LC50 96 h Pimephales promelas 126 - 137 mg/L [flow-through]
Methyl ethyl ketone	78-93-3
Fish:	LC50 96 h Pimephales promelas 3130 - 3320 mg/L [flow-through]
Invertebrate:	EC50 48 h Daphnia magna >520 mg/L IUCLID ; EC50 48 h Daphnia magna 5091 mg/L IUCLID ; EC50 48 h Daphnia magna 4025 - 6440 mg/L [Static] EPA
Methyl propyl ketone	107-87-9
Fish:	LC50 96 h Pimephales promelas 1190 - 1290 mg/L [flow-through]
Acetone	67-64-1
Fish:	LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static] ; LC50 96 h Lepomis macrochirus 8300 mg/L
Invertebrate:	EC50 48 h Daphnia magna 10294 - 17704 mg/L [Static] EPA ; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID
Ethylbenzene	100-41-4
Fish:	LC50 96 h Oncorhynchus mykiss 11 - 18 mg/L [static] ; LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static] ; LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through] ; LC50 96 h Lepomis macrochirus 32 mg/L [static] ; LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static] ; LC50 96 h Poecilia reticulata 9.6 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata >438 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static] EPA ; EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna 1.8 - 2.4 mg/L IUCLID
Ethyl 3-ethoxypropanoate	763-69-9
Fish:	LC50 96 h Pimephales promelas 62 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna 970 mg/L IUCLID
Ethyl acetate	141-78-6
Fish:	LC50 96 h Pimephales promelas 220 - 250 mg/L [flow-through] ; LC50 96 h Oncorhynchus mykiss 484 mg/L [flow-through] ; LC50 96 h Oncorhynchus mykiss 352 - 500 mg/L [semi-static]
Invertebrate:	EC50 48 h Daphnia magna 560 mg/L [Static] EPA

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Propylene glycol monomethyl ether acetate	108-65-6
Fish:	LC50 96 h Pimephales promelas 161 mg/L [static]
Invertebrate:	EC50 48 h Daphnia magna >500 mg/L IUCLID
n-Butyl acetate	123-86-4
Fish:	LC50 96 h Lepomis macrochirus 100 mg/L [static] ; LC50 96 h Pimephales promelas 17 - 19 mg/L [flow-through]
Algae:	EC50 72 h Desmodesmus subspicatus 674.7 mg/L IUCLID
Isobutyl acetate	110-19-0
Fish:	LC50 96 h Oryzias latipes 17 mg/L
Xylenes (o-, m-, p-isomers)	1330-20-7
Fish:	LC50 96 h Pimephales promelas 13.4 mg/L [flow-through] ; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static] ; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L ; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through] ; LC50 96 h Lepomis macrochirus 19 mg/L ; LC50 96 h Lepomis macrochirus 7.711 - 9.591 mg/L [static] ; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static] ; LC50 96 h Cyprinus carpio 780 mg/L [semi-static] ; LC50 96 h Cyprinus carpio >780 mg/L ; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static]
Invertebrate:	EC50 48 h water flea 3.82 mg/L ; LC50 48 h Gammarus lacustris 0.6 mg/L
Isopropyl alcohol	67-63-0
Fish:	LC50 96 h Pimephales promelas 9640 mg/L [flow-through] ; LC50 96 h Pimephales promelas 11130 mg/L [static] ; LC50 96 h Lepomis macrochirus >1400000 µg/L
Algae:	EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 13299 mg/L IUCLID
tert-Butyl alcohol	75-65-0
Fish:	LC50 96 h Pimephales promelas 6130 - 6700 mg/L [flow-through]
Algae:	EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 933 mg/L IUCLID ; EC50 48 h Daphnia magna 4607 - 6577 mg/L [Static] EPA

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Ethyl alcohol	64-17-5
Fish:	LC50 96 h Oncorhynchus mykiss 12 - 16 mL/L [static]; LC50 96 h Pimephales promelas >100 mg/L [static]; LC50 96 h Pimephales promelas 13400 - 15100 mg/L [flow-through]
Invertebrate:	LC50 48 h Daphnia magna 9268 - 14221 mg/L IUCLID ; EC50 48 h Daphnia magna 2 mg/L [Static] EPA
1-Butanol	71-36-3
Fish:	LC50 96 h Pimephales promelas 1730 - 1910 mg/L [static]; LC50 96 h Pimephales promelas 1740 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 100000 - 500000 µg/L [static]; LC50 96 h Pimephales promelas 1910000 µg/L [static]
Algae:	EC50 96 h Desmodesmus subspicatus >500 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 1983 mg/L IUCLID ; EC50 48 h Daphnia magna 1897 - 2072 mg/L [Static] EPA
n-Propanol	71-23-8
Fish:	LC50 96 h Pimephales promelas 4480 mg/L [flow-through]
Invertebrate:	EC50 48 h Daphnia magna 3642 mg/L IUCLID ; EC50 48 h Daphnia magna 3339 - 3977 mg/L [Static] EPA
Methanol	67-56-1
Fish:	LC50 96 h Pimephales promelas 28200 mg/L [flow-through]; LC50 96 h Pimephales promelas >100 mg/L [static]; LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static]; LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through]
Tetrachloroethylene	127-18-4
Fish:	LC50 96 h Pimephales promelas 12.4 - 14.4 mg/L [flow-through]; LC50 96 h Pimephales promelas 8.6 - 13.5 mg/L [static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4.73 - 5.27 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 6.1 - 9 mg/L [Static] EPA
Methylene chloride	75-09-2
Fish:	LC50 96 h Pimephales promelas 140.8 - 277.8 mg/L [flow-through]; LC50 96 h Pimephales promelas 262 - 855 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [static]; LC50 96 h Lepomis macrochirus 193 mg/L [flow-through]

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA ; EC50 72 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 1532 - 1847 mg/L [Static] EPA ; EC50 48 h Daphnia magna 190 mg/L IUCLID
1,1,1-Trichloroethane	71-55-6
Fish:	LC50 96 h Lepomis macrochirus 57 - 90 mg/L [static] (juvenile) ; LC50 96 h Pimephales promelas 35.2 - 50.7 mg/L [flow-through] ; LC50 96 h Cyprinus carpio 56 mg/L [flow-through] ; LC50 96 h Poecilia reticulata 52.9 mg/L [flow-through] ; LC50 96 h Poecilia reticulata 69.7 mg/L [static] ; LC50 96 h Pimephales promelas 91 - 126 mg/L [static] ; LC50 96 h Oncorhynchus mykiss 46 - 59 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	LC50 48 h Daphnia magna >530 mg/L IUCLID ; EC50 48 h Daphnia magna 2384 mg/L IUCLID ; EC50 48 h Daphnia magna 9.7 - 12.8 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

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.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: PAINT RELATED MATERIAL

Hazard Class: 3

UN/NA #: UN1263

Packing Group: II

Required Label(s): 3 FLAMMABLE LIQUID

IATA Information:

Shipping Name: PAINT RELATED MATERIAL

Hazard Class: 3

UN#: UN1263

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID

IMDG Information:
Shipping Name: PAINT RELATED MATERIAL
Hazard Class: 3
UN#: UN1263
Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID

TDG Information:
Shipping Name: PAINT RELATED MATERIAL
Hazard Class: 3
UN#: UN1263
Packing Group: II
Required Label(s): 3 FLAMMABLE LIQUID
International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Toluene	108-88-3
IBC Code:	Category Y
Naphtha	8030-30-6
IBC Code:	Category Y
2-Pentanone, 4-methyl-	108-10-1
IBC Code:	Category Z
Methyl n-amyl ketone	110-43-0
IBC Code:	Category Z
Methyl ethyl ketone	78-93-3
IBC Code:	Category Z
Ethylbenzene	100-41-4
IBC Code:	Category Y
Ethyl 3-ethoxypropanoate	763-69-9
IBC Code:	Category Y
Ethyl acetate	141-78-6
IBC Code:	Category Z

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Propylene glycol monomethyl ether acetate	108-65-6
IBC Code:	Category Z
Isopropyl acetate	108-21-4
IBC Code:	Category Z
Xylenes (o-, m-, p- isomers)	1330-20-7
IBC Code:	Category Y
tert-Butyl alcohol	75-65-0
IBC Code:	Category Z
n-Propanol	71-23-8
IBC Code:	Category Y
Methanol	67-56-1
IBC Code:	Category Y
Tetrachloroethylene	127-18-4
IBC Code:	Category Y
Methylene chloride	75-09-2
IBC Code:	Category Y
1,1,1-Trichloroethane	71-55-6
IBC Code:	Category Y

Further information

Emergency Response Guide Number 128 Reference .North American Emergency Response Guidebook

Section 15 - REGULATORY INFORMATION
--

Canada Regulations

CEPA - Priority Substances List

Toluene	108-88-3
	Priority Substance List 1 (substance not considered toxic)
Xylenes (o-, m-, p- isomers)	1330-20-7
	Priority Substance List 1 (substance not considered toxic)
Tetrachloroethylene	127-18-4

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

	Priority Substance List 1 (substance considered toxic)
Methylene chloride	75-09-2
	Priority Substance List 1 (substance considered toxic)
1,1,1-Trichloroethane	71-55-6
	Priority Substance List 1 (substance considered toxic, added to CEPA's Schedule 1, List of Toxic Substances)

Ozone Depleting Substances

1,1,1-Trichloroethane	71-55-6
Alberta	Schedule 1

Council of Ministers of the Environment - Soil Quality Guidelines

Toluene	108-88-3
Residential and Parkland	0.37 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.08 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.37 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 0.08 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur)
Ethylbenzene	100-41-4
Residential and Parkland	0.082 mg/kg coarse (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.018 mg/kg fine (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.082 mg/kg coarse (subsoil (>1.5 m), this value may be less than the common limit of detection in some

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

	jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur); 0.018 mg/kg fine (subsoil (>1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur)
Xylenes (o-, m-, p-isomers)	1330-20-7
Residential and Parkland	11 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 2.4 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 11 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur); 2.4 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur)
Methanol	67-56-1
Residential and Parkland	4.6 mg/kg coarse (dry weight, human health soil quality guideline); 7.7 mg/kg coarse (dry weight, environmental soil quality guideline); 4.6 mg/kg coarse (dry weight, soil quality guideline - lower of the human health soil quality guideline and the environmental soil quality guideline); 5.6 mg/kg fine (dry weight, human health soil quality guideline); 190 mg/kg fine (dry weight, environmental soil quality guideline); 5.6 mg/kg fine (dry weight, soil quality guideline - lower of the human health soil quality guideline and the environmental soil quality guideline is the soil quality guideline)
Tetrachloroethylene	127-18-4
Residential and Parkland	0.2 mg/kg (dry weight)
Methylene chloride	75-09-2
Residential and Parkland	5 mg/kg (dry weight)
1,1,1-Trichloroethane	71-55-6

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Residential and Parkland	5 mg/kg (dry weight)
--------------------------	-----------------------

Council of Ministers of the Environment - Water Quality Guidelines

Toluene	108-88-3
Marine Aquatic Life	215 µg/L
Ethylbenzene	100-41-4
Marine Aquatic Life	25 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.

Toluene	108-88-3
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
2-Pentanone, 4-methyl-	108-10-1
SARA 313:	0.1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Methyl ethyl ketone	78-93-3
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Acetone	67-64-1
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Ethylbenzene	100-41-4
SARA 313:	0.1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
Ethyl acetate	141-78-6
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
n-Butyl acetate	123-86-4
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Isobutyl acetate	110-19-0

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Xylenes (o-, m-, p-isomers)	1330-20-7
SARA 313:	1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
Isopropyl alcohol	67-63-0
SARA 313:	1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
tert-Butyl alcohol	75-65-0
SARA 313:	1 % de minimis concentration
1-Butanol	71-36-3
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Methanol	67-56-1
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ
Tetrachloroethylene	127-18-4
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
Methylene chloride	75-09-2
SARA 313:	0.1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
TSCA 12b:	Section 6 , 0.1 % de minimis concentration
1,1,1-Trichloroethane	71-55-6
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

CAS-No.	Name	Percent by Weight
108-88-3	Toluene	0-60
108-10-1	2-Pentanone-4-methyl-	0-60
100-41-4	Ethylbenzene	0-30
1330-20-7	Xylenes (o-,m-,p-isomers)	0-15
67-63-0	Isopropyl alcohol	0-10
75-65-0	Tert-Butyl alcohol	0-10
71-36-3	1-Butanol	0-10
67-56-1	Methanol	0-4
127-18-4	Tetrachloroethylene	0-1
75-09-2	Methylene chloride	0-1
1	1,1,1-Trichloroethane	0-1

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Flammable; Carcinogenicity; Acute toxicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Aspiration Hazard; Germ Cell Mutagenicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes
Distillates, petroleum, solvent-refined light paraffinic	64741-89-5	No	Yes	No	No	No
Naphtha	8030-30-6	Yes	Yes	Yes	Yes	Yes
2-Pentanone, 4-methyl-	108-10-1	Yes	Yes	Yes	Yes	Yes
Methyl n-amyl ketone	110-43-0	Yes	Yes	Yes	Yes	Yes
Methyl ethyl ketone	78-93-3	Yes	Yes	Yes	Yes	Yes
Methyl propyl ketone	107-87-9	Yes	Yes	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes
Ethyl acetate	141-78-6	Yes	Yes	Yes	Yes	Yes
Isopropyl acetate	108-21-4	Yes	Yes	Yes	Yes	Yes
n-Butyl acetate	123-86-4	Yes	Yes	Yes	Yes	Yes
Isobutyl acetate	110-19-0	Yes	Yes	Yes	Yes	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes
tert-Butyl alcohol	75-65-0	Yes	Yes	Yes	Yes	Yes

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes
1-Butanol	71-36-3	Yes	Yes	Yes	Yes	Yes
n-Propanol	71-23-8	Yes	Yes	Yes	Yes	Yes
Methanol	67-56-1	Yes	Yes	Yes	Yes	Yes
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	Yes
Methylene chloride	75-09-2	Yes	Yes	Yes	Yes	Yes
1,1,1-Trichloroethane	71-55-6	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
 THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.

Component Analysis - Inventory

Toluene (108-88-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
Yes		Yes	Yes	Yes	Yes	Yes	Yes	

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	No	Yes	Yes	

Naphtha (8030-30-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	Yes	Yes	Yes	

2-Pentanone, 4-methyl- (108-10-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
No		Yes	Yes	Yes	Yes	Yes	Yes	

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Methyl n-amyl ketone (110-43-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Methyl ethyl ketone (78-93-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Methyl propyl ketone (107-87-9)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Acetone (67-64-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Ethylbenzene (100-41-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Ethyl 3-ethoxypropanoate (763-69-9)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Ethyl acetate (141-78-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Propylene glycol monomethyl ether acetate (108-65-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Isopropyl acetate (108-21-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

n-Butyl acetate (123-86-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Isobutyl acetate (110-19-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Xylenes (o-, m-, p- isomers) (1330-20-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Isopropyl alcohol (67-63-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

tert-Butyl alcohol (75-65-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Ethyl alcohol (64-17-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

1-Butanol (71-36-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

n-Propanol (71-23-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

SDS ID: 82343

Methanol (67-56-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Tetrachloroethylene (127-18-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Methylene chloride (75-09-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

1,1,1-Trichloroethane (71-55-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	No	Yes	Yes

TSCA (Toxic Substances Control Act) - Section 6 - Restricted Substances

Chemical name	CAS No	
Methylene chloride	75-09-2	This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 4 Fire: 3 Instability: 0

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

Summary of Changes

Regulatory review and update.

2021/10: Addition to Section 15.

Safety Data Sheet

Material Name: SAFETY-KLEEN HEAVY DUTY LACQUER THINNER 6782

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; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; 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; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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.

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: SAFETY-KLEEN MULTI-USE LACQUER THINNER

Product Code: 6801, 16801

Synonyms: None.

SDS No: 82410

1.2. Intended Use of the Product

Lacquer thinner. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Safety-Kleen Systems, Inc.

42 Longwater Drive

Norwell, MA 02061-9149

1-800-669-5740

www.safety-kleen.com

SUPPLIER (in Canada)

Safety-Kleen Canada, Inc.

25 Regan Road

Brampton, Ontario L7A 1B2

Canada

1.4. Emergency Telephone Number

Emergency Number : 1-800-468-1760

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Muta. 1B	H340
Carc. 1B	H350
Repr. 2	H361
STOT SE 1	H370
STOT SE 3	H336
STOT RE 1	H372

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

: Danger

Hazard Statements (GHS-US/CA)

- : H225 - Highly flammable liquid and vapor.
 H302 - Harmful if swallowed.
 H315 - Causes skin irritation.
 H318 - Causes serious eye damage.
 H336 - May cause drowsiness or dizziness.
 H340 - May cause genetic defects.
 H350 - May cause cancer.
 H361 - Suspected of damaging fertility or the unborn child.
 H370 - Causes damage to organs (blood).
 H372 - Causes damage to organs (central nervous system, kidneys, liver, respiratory)

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

tract, peripheral nervous system, retina) through prolonged or repeated exposure.
H304 - May be fatal if swallowed and enters airways.

- Precautionary Statements (GHS-US/CA) :**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground/bond container and receiving equipment.
 - P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take action to prevent static discharges.
 - P260 - Do not breathe vapors, mist, or spray.
 - P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
 - P270 - Do not eat, drink or smoke when using this product.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P280 - Wear protective gloves, protective clothing, and eye protection.
 - P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
 - P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
 - P330 - Rinse mouth.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
 - P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P308+P313 - If exposed or concerned: Get medical advice/attention.
 - P310 - Immediately call a POISON CENTER or doctor.
 - P321 - Specific treatment (see section 4 on this SDS).
 - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 - P362+P364 - Take off contaminated clothing and wash it before reuse.
 - P403+P235 - Store in a well-ventilated place. Keep cool.
 - P405 - Store locked up.
 - P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No additional information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Toluene	Benzene, methyl- / Methylbenzene / Phenylmethane / TOLUENE	(CAS-No.) 108-88-3	≤ 50	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:vapor), H332 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Solvent naphtha, petroleum, light aliphatic	Solvent naphtha (petroleum), light aliphatic / Naphtha, petroleum, light aliphatic /	(CAS-No.) 64742-89-8	≤ 35	Flam. Liq. 1, H224 Skin Irrit. 2, H315

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

	Solvent naphtha light aliphatic / Naphtha, light aliphatic solvent / Light aliphatic solvent naphtha (petroleum)			Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 STOT RE 1, H372 Asp. Tox. 1, H304
Acetone	Dimethyl ketone / 2-Propanone / ACETONE / Propan-2-one / Propanone	(CAS-No.) 67-64-1	10 – 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Isopropyl alcohol	2-Hydroxypropane / 2-Propyl alcohol / 2-Propanol / Isopropanol / Propan-2-ol	(CAS-No.) 67-63-0	2 – 15	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Methyl ethyl ketone	Butan-2-one / 2-Butanone / Ethyl methyl ketone / Methyl acetone / MEK / Butanone	(CAS-No.) 78-93-3	5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Repr. 2, H361 STOT SE 3, H335
Ethyl 3-ethoxypropanoate	Ethyl 3-ethoxypropionate / Propanoic acid, 3-ethoxy-, ethyl ester / Propionate, 3-ethoxy-, ethyl / Propionic acid, 3-ethoxy-, ethyl ester / EEP solvent	(CAS-No.) 763-69-9	≤ 10	Flam. Liq. 3, H226
Isobutyl acetate	Acetic acid, 2-methylpropyl ester / Acetic acid, isobutyl ester / 2-Methylpropyl acetate / ISOBUTYL ACETATE	(CAS-No.) 110-19-0	≤ 10	Flam. Liq. 2, H225 STOT SE 3, H336
2-Pentanone, 4-methyl-	Hexone / Isobutyl methyl ketone / Isopropylacetone / Methyl isobutyl ketone / 4-Methyl-2-pentanone	(CAS-No.) 108-10-1	2 – 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335
Xylenes (o-, m-, p- isomers)	Benzene, dimethyl- / Dimethylbenzene (mixed isomers) / Xylene / Xylene (all isomers) / Xylene (mixed isomers)	(CAS-No.) 1330-20-7	≤ 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Repr. 2, H361 Asp. Tox. 1, H304
Methanol	Methyl alcohol / Carbinol / Methyl hydroxide / Wood alcohol / METHYL ALCOHOL	(CAS-No.) 67-56-1	≤ 5	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 STOT SE 3, H336
n-Propanol	n-Propyl alcohol / Propanol / 1-Propyl alcohol / Propyl alcohol / Propylic	(CAS-No.) 71-23-8	≤ 5	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336
Ethyl acetate	Acetic acid, ethyl ester / Ethyl ethanoate / ETHYL ACETATE	(CAS-No.) 141-78-6	≤ 5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
n-Butyl acetate	1-Butyl acetate / Butyl acetate, n- / Butyl acetate / BUTYL ACETATE / Acetic acid, n-butyl ester / Acetic acid, butyl ester / Butyl ethanoate	(CAS-No.) 123-86-4	≤ 5	Flam. Liq. 2, H225 STOT SE 3, H336
Ethyl alcohol	Methylcarbinol / Ethanol / ALCOHOL / Alcohol anhydrous / Alcohol / Grain alcohol	(CAS-No.) 64-17-5		Flam. Liq. 2, H225 Eye Irrit. 2A, H319

Full text of H-statements: see section 16

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Skin Contact: Immediately remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Immediately rinse with water for at least 30 minutes. 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: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, keep head below waistline. . If vomiting occurs have person lean forward. Turn affected person(s) on their side and maintain in that position to prevent aspiration.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Causes damage to organs (central nervous system, peripheral nervous system, respiratory system, kidney, liver) through prolonged or repeated exposure. May cause damage to organs (blood) through prolonged or repeated exposure. May cause drowsiness and dizziness. May cause cancer. Suspected of damaging fertility or the unborn child. Causes skin irritation. May cause genetic defects. Harmful if swallowed. Causes serious eye damage.

Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. This product contains methanol below its classification cutoff level. If this product is ingested in large quantities, the methanol in it may cause may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

Chronic Symptoms: May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May cause genetic defects.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Vapor is denser than air – flashback may be possible over considerable distances. Highly flammable liquid and vapor.

Explosion Hazard: May form flammable or explosive vapor-air mixture.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Remove containers from fire area if this can be done without risk. Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Toxic fumes may be released. Formaldehyde. Unidentified organic compounds. Carbon oxides (CO, CO₂).

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Remove ignition sources. Do not touch or walk on the spilled product. Stop leak, if possible without risk. Use only non-sparking tools. Take up in non combustible materials. Ventilate area. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Absorb and/or contain spill with inert material. Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof equipment. Ground containers when transferring. Use only outdoors or in a well-ventilated area. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not get in eyes, on skin, or on clothing. Do NOT breathe (dust, vapor, mist, gas). Avoid contact with eyes, skin and clothing. Take precautionary measures against static discharge. Use only non-sparking tools. Handle empty containers with care because they may still present a hazard.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: reactive metals (Al, K, Zn). halogens (F, Cl, Br, I). Alkalis. Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Lacquer thinner. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

Toluene (108-88-3)

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA ACGIH	ACGIH OEL TWA [ppm]	20 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	BEI (BLV)	0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: prior to last shift of workweek 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: end of shift 0.3 mg/g Kreatinin Parameter: o-Cresol with hydrolysis - Medium: urine - Sampling time: end of shift (background)
USA OSHA	OSHA PEL (TWA) [2]	200 ppm
USA OSHA	OSHA PEL C [ppm]	300 ppm
USA OSHA	Acceptable Maximum Peak Above The Acceptable Ceiling Concentration For An 8-Hr Shift	500 ppm Peak (10 minutes)
USA NIOSH	NIOSH REL (TWA)	375 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	100 ppm
USA NIOSH	NIOSH REL (STEL)	560 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	150 ppm
USA IDLH	IDLH [ppm]	500 ppm
Alberta	OEL TWA	188 mg/m ³
Alberta	OEL TWA [ppm]	50 ppm
British Columbia	OEL TWA [ppm]	20 ppm
Manitoba	OEL TWA [ppm]	20 ppm
New Brunswick	OEL TWA	188 mg/m ³
New Brunswick	OEL TWA [ppm]	50 ppm
Newfoundland & Labrador	OEL TWA [ppm]	20 ppm
Nova Scotia	OEL TWA [ppm]	20 ppm
Nunavut	OEL STEL [ppm]	60 ppm
Nunavut	OEL TWA [ppm]	50 ppm
Northwest Territories	OEL STEL [ppm]	60 ppm
Northwest Territories	OEL TWA [ppm]	50 ppm
Ontario	OEL TWA [ppm]	20 ppm
Prince Edward Island	OEL TWA [ppm]	20 ppm
Québec	VEMP (OEL TWA)	188 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	60 ppm
Saskatchewan	OEL TWA [ppm]	50 ppm
Yukon	OEL STEL	560 mg/m ³
Yukon	OEL STEL [ppm]	150 ppm
Yukon	OEL TWA	375 mg/m ³
Yukon	OEL TWA [ppm]	100 ppm
Acetone (67-64-1)		
USA ACGIH	ACGIH OEL TWA [ppm]	250 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	500 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	BEI (BLV)	25 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift (nonspecific)
USA OSHA	OSHA PEL (TWA) [1]	2400 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	590 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	250 ppm
USA IDLH	IDLH [ppm]	2500 ppm (10% LEL)
Alberta	OEL STEL	1800 mg/m ³

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Alberta	OEL STEL [ppm]	750 ppm
Alberta	OEL TWA	1200 mg/m ³
Alberta	OEL TWA [ppm]	500 ppm
British Columbia	OEL STEL [ppm]	500 ppm
British Columbia	OEL TWA [ppm]	250 ppm
Manitoba	OEL STEL [ppm]	500 ppm
Manitoba	OEL TWA [ppm]	250 ppm
New Brunswick	OEL STEL	1782 mg/m ³
New Brunswick	OEL STEL [ppm]	750 ppm
New Brunswick	OEL TWA	1188 mg/m ³
New Brunswick	OEL TWA [ppm]	500 ppm
Newfoundland & Labrador	OEL STEL [ppm]	500 ppm
Newfoundland & Labrador	OEL TWA [ppm]	250 ppm
Nova Scotia	OEL STEL [ppm]	500 ppm
Nova Scotia	OEL TWA [ppm]	250 ppm
Nunavut	OEL STEL [ppm]	750 ppm
Nunavut	OEL TWA [ppm]	500 ppm
Northwest Territories	OEL STEL [ppm]	750 ppm
Northwest Territories	OEL TWA [ppm]	500 ppm
Ontario	OEL STEL [ppm]	500 ppm
Ontario	OEL TWA [ppm]	250 ppm
Prince Edward Island	OEL STEL [ppm]	500 ppm
Prince Edward Island	OEL TWA [ppm]	250 ppm
Québec	VECD (OEL STEL)	2380 mg/m ³
Québec	VECD (OEL STEL) [ppm]	1000 ppm
Québec	VEMP (OEL TWA)	1190 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	500 ppm
Saskatchewan	OEL STEL [ppm]	750 ppm
Saskatchewan	OEL TWA [ppm]	500 ppm
Yukon	OEL STEL	3000 mg/m ³
Yukon	OEL STEL [ppm]	1250 ppm
Yukon	OEL TWA	2400 mg/m ³
Yukon	OEL TWA [ppm]	1000 ppm
Isopropyl alcohol (67-63-0)		
USA ACGIH	ACGIH OEL TWA [ppm]	200 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	400 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	BEI (BLV)	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift at end of workweek (background, nonspecific)
USA OSHA	OSHA PEL (TWA) [1]	980 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	400 ppm
USA NIOSH	NIOSH REL (TWA)	980 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	400 ppm
USA NIOSH	NIOSH REL (STEL)	1225 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	500 ppm
USA IDLH	IDLH [ppm]	2000 ppm (10% LEL)
Alberta	OEL STEL	984 mg/m ³
Alberta	OEL STEL [ppm]	400 ppm
Alberta	OEL TWA	492 mg/m ³
Alberta	OEL TWA [ppm]	200 ppm
British Columbia	OEL STEL [ppm]	400 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

British Columbia	OEL TWA [ppm]	200 ppm
Manitoba	OEL STEL [ppm]	400 ppm
Manitoba	OEL TWA [ppm]	200 ppm
New Brunswick	OEL STEL	1230 mg/m ³
New Brunswick	OEL STEL [ppm]	500 ppm
New Brunswick	OEL TWA	983 mg/m ³
New Brunswick	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL STEL [ppm]	400 ppm
Newfoundland & Labrador	OEL TWA [ppm]	200 ppm
Nova Scotia	OEL STEL [ppm]	400 ppm
Nova Scotia	OEL TWA [ppm]	200 ppm
Nunavut	OEL STEL [ppm]	400 ppm
Nunavut	OEL TWA [ppm]	200 ppm
Northwest Territories	OEL STEL [ppm]	400 ppm
Northwest Territories	OEL TWA [ppm]	200 ppm
Ontario	OEL STEL [ppm]	400 ppm
Ontario	OEL TWA [ppm]	200 ppm
Prince Edward Island	OEL STEL [ppm]	400 ppm
Prince Edward Island	OEL TWA [ppm]	200 ppm
Québec	VECD (OEL STEL)	1230 mg/m ³
Québec	VECD (OEL STEL) [ppm]	500 ppm
Québec	VEMP (OEL TWA)	985 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	400 ppm
Saskatchewan	OEL STEL [ppm]	400 ppm
Saskatchewan	OEL TWA [ppm]	200 ppm
Yukon	OEL STEL	1225 mg/m ³
Yukon	OEL STEL [ppm]	500 ppm
Yukon	OEL TWA	980 mg/m ³
Yukon	OEL TWA [ppm]	400 ppm
Methyl ethyl ketone (78-93-3)		
USA ACGIH	ACGIH OEL TWA [ppm]	200 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	300 ppm
USA ACGIH	BEI (BLV)	2 mg/l Parameter: MEK - Medium: urine - Sampling time: end of shift (nonspecific)
USA OSHA	OSHA PEL (TWA) [1]	590 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	200 ppm
USA NIOSH	NIOSH REL (TWA)	590 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	200 ppm
USA NIOSH	NIOSH REL (STEL)	885 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	300 ppm
USA IDLH	IDLH [ppm]	3000 ppm
Alberta	OEL STEL	885 mg/m ³
Alberta	OEL STEL [ppm]	300 ppm
Alberta	OEL TWA	590 mg/m ³
Alberta	OEL TWA [ppm]	200 ppm
British Columbia	OEL STEL [ppm]	100 ppm
British Columbia	OEL TWA [ppm]	50 ppm
Manitoba	OEL STEL [ppm]	300 ppm
Manitoba	OEL TWA [ppm]	200 ppm
New Brunswick	OEL STEL	885 mg/m ³
New Brunswick	OEL STEL [ppm]	300 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

New Brunswick	OEL TWA	590 mg/m ³
New Brunswick	OEL TWA [ppm]	200 ppm
Newfoundland & Labrador	OEL STEL [ppm]	300 ppm
Newfoundland & Labrador	OEL TWA [ppm]	200 ppm
Nova Scotia	OEL STEL [ppm]	300 ppm
Nova Scotia	OEL TWA [ppm]	200 ppm
Nunavut	OEL STEL [ppm]	300 ppm
Nunavut	OEL TWA [ppm]	200 ppm
Northwest Territories	OEL STEL [ppm]	300 ppm
Northwest Territories	OEL TWA [ppm]	200 ppm
Ontario	OEL STEL [ppm]	300 ppm
Ontario	OEL TWA [ppm]	200 ppm
Prince Edward Island	OEL STEL [ppm]	300 ppm
Prince Edward Island	OEL TWA [ppm]	200 ppm
Québec	VECD (OEL STEL)	300 mg/m ³
Québec	VECD (OEL STEL) [ppm]	100 ppm
Québec	VEMP (OEL TWA)	150 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	300 ppm
Saskatchewan	OEL TWA [ppm]	200 ppm
Yukon	OEL STEL	740 mg/m ³
Yukon	OEL STEL [ppm]	250 ppm
Yukon	OEL TWA	590 mg/m ³
Yukon	OEL TWA [ppm]	200 ppm
Ethyl 3-ethoxypropanoate (763-69-9)		
Ontario	OEL TWA	300 mg/m ³
Ontario	OEL TWA [ppm]	50 ppm
Isobutyl acetate (110-19-0)		
USA ACGIH	ACGIH OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
USA ACGIH	ACGIH OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
USA OSHA	OSHA PEL (TWA) [1]	700 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	150 ppm
USA NIOSH	NIOSH REL (TWA)	700 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	150 ppm
USA IDLH	IDLH [ppm]	1300 ppm (10% LEL)
Alberta	OEL TWA	713 mg/m ³
Alberta	OEL TWA [ppm]	150 ppm
British Columbia	OEL STEL [ppm]	150 ppm (Butyl acetate, all isomers)
British Columbia	OEL TWA [ppm]	50 ppm (Butyl acetate, all isomers)
Manitoba	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Manitoba	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
New Brunswick	OEL TWA	713 mg/m ³
New Brunswick	OEL TWA [ppm]	150 ppm
Newfoundland & Labrador	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Newfoundland & Labrador	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Nova Scotia	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Nova Scotia	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Nunavut	OEL STEL [ppm]	188 ppm
Nunavut	OEL TWA [ppm]	150 ppm
Northwest Territories	OEL STEL [ppm]	188 ppm
Northwest Territories	OEL TWA [ppm]	150 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Ontario	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Ontario	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Prince Edward Island	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Prince Edward Island	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Québec	VECD (OEL STEL) [ppm]	150 ppm (Butyl acetate (all isomers))
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	188 ppm
Saskatchewan	OEL TWA [ppm]	150 ppm
Yukon	OEL STEL	875 mg/m ³
Yukon	OEL STEL [ppm]	187 ppm
Yukon	OEL TWA	700 mg/m ³
Yukon	OEL TWA [ppm]	150 ppm
2-Pentanone, 4-methyl- (108-10-1)		
USA ACGIH	ACGIH OEL TWA [ppm]	20 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	75 ppm
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA ACGIH	BEI (BLV)	1 mg/l Parameter: MIBK - Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) [1]	410 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	100 ppm
USA NIOSH	NIOSH REL (TWA)	205 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	50 ppm
USA NIOSH	NIOSH REL (STEL)	300 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	75 ppm
USA IDLH	IDLH [ppm]	500 ppm
Alberta	OEL STEL	307 mg/m ³
Alberta	OEL STEL [ppm]	75 ppm
Alberta	OEL TWA	205 mg/m ³
Alberta	OEL TWA [ppm]	50 ppm
British Columbia	OEL STEL [ppm]	75 ppm
British Columbia	OEL TWA [ppm]	20 ppm
Manitoba	OEL STEL [ppm]	75 ppm
Manitoba	OEL TWA [ppm]	20 ppm
New Brunswick	OEL STEL	307 mg/m ³
New Brunswick	OEL STEL [ppm]	75 ppm
New Brunswick	OEL TWA	205 mg/m ³
New Brunswick	OEL TWA [ppm]	50 ppm
Newfoundland & Labrador	OEL STEL [ppm]	75 ppm
Newfoundland & Labrador	OEL TWA [ppm]	20 ppm
Nova Scotia	OEL STEL [ppm]	75 ppm
Nova Scotia	OEL TWA [ppm]	20 ppm
Nunavut	OEL STEL [ppm]	75 ppm
Nunavut	OEL TWA [ppm]	50 ppm
Northwest Territories	OEL STEL [ppm]	75 ppm
Northwest Territories	OEL TWA [ppm]	50 ppm
Ontario	OEL STEL [ppm]	75 ppm
Ontario	OEL TWA [ppm]	20 ppm
Prince Edward Island	OEL STEL [ppm]	75 ppm
Prince Edward Island	OEL TWA [ppm]	20 ppm
Québec	VECD (OEL STEL) [ppm]	75 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Québec	VEMP (OEL TWA) [ppm]	20 ppm
Saskatchewan	OEL STEL [ppm]	75 ppm
Saskatchewan	OEL TWA [ppm]	50 ppm
Yukon	OEL STEL	510 mg/m ³
Yukon	OEL STEL [ppm]	125 ppm
Yukon	OEL TWA	410 mg/m ³
Yukon	OEL TWA [ppm]	100 ppm
Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA ACGIH	ACGIH OEL STEL [ppm]	150 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	BEI (BLV)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) [1]	435 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	100 ppm
Alberta	OEL STEL	651 mg/m ³
Alberta	OEL STEL [ppm]	150 ppm
Alberta	OEL TWA	434 mg/m ³
Alberta	OEL TWA [ppm]	100 ppm
British Columbia	OEL STEL [ppm]	150 ppm
British Columbia	OEL TWA [ppm]	100 ppm
Manitoba	OEL STEL [ppm]	150 ppm
Manitoba	OEL TWA [ppm]	100 ppm
New Brunswick	OEL STEL	651 mg/m ³
New Brunswick	OEL STEL [ppm]	150 ppm
New Brunswick	OEL TWA	434 mg/m ³
New Brunswick	OEL TWA [ppm]	100 ppm
Newfoundland & Labrador	OEL STEL [ppm]	150 ppm
Newfoundland & Labrador	OEL TWA [ppm]	100 ppm
Nova Scotia	OEL STEL [ppm]	150 ppm
Nova Scotia	OEL TWA [ppm]	100 ppm
Nunavut	OEL STEL [ppm]	150 ppm
Nunavut	OEL TWA [ppm]	100 ppm
Northwest Territories	OEL STEL [ppm]	150 ppm
Northwest Territories	OEL TWA [ppm]	100 ppm
Ontario	OEL STEL [ppm]	150 ppm
Ontario	OEL TWA [ppm]	100 ppm
Prince Edward Island	OEL STEL [ppm]	150 ppm
Prince Edward Island	OEL TWA [ppm]	100 ppm
Québec	VECD (OEL STEL)	651 mg/m ³
Québec	VECD (OEL STEL) [ppm]	150 ppm
Québec	VEMP (OEL TWA)	434 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	100 ppm
Saskatchewan	OEL STEL [ppm]	150 ppm
Saskatchewan	OEL TWA [ppm]	100 ppm
Yukon	OEL STEL	650 mg/m ³
Yukon	OEL STEL [ppm]	150 ppm
Yukon	OEL TWA	435 mg/m ³
Yukon	OEL TWA [ppm]	100 ppm
Methanol (67-56-1)		
USA ACGIH	ACGIH OEL TWA [ppm]	200 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA ACGIH	ACGIH OEL STEL [ppm]	250 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA ACGIH	BEI (BLV)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: end of shift (background, nonspecific)
USA OSHA	OSHA PEL (TWA) [1]	260 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	200 ppm
USA NIOSH	NIOSH REL (TWA)	260 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	200 ppm
USA NIOSH	NIOSH REL (STEL)	325 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	250 ppm
USA IDLH	IDLH [ppm]	6000 ppm
Alberta	OEL STEL	328 mg/m ³
Alberta	OEL STEL [ppm]	250 ppm
Alberta	OEL TWA	262 mg/m ³
Alberta	OEL TWA [ppm]	200 ppm
British Columbia	OEL STEL [ppm]	250 ppm
British Columbia	OEL TWA [ppm]	200 ppm
Manitoba	OEL STEL [ppm]	250 ppm
Manitoba	OEL TWA [ppm]	200 ppm
New Brunswick	OEL STEL	328 mg/m ³
New Brunswick	OEL STEL [ppm]	250 ppm
New Brunswick	OEL TWA	262 mg/m ³
New Brunswick	OEL TWA [ppm]	200 ppm
Newfoundland & Labrador	OEL STEL [ppm]	250 ppm
Newfoundland & Labrador	OEL TWA [ppm]	200 ppm
Nova Scotia	OEL STEL [ppm]	250 ppm
Nova Scotia	OEL TWA [ppm]	200 ppm
Nunavut	OEL STEL [ppm]	250 ppm
Nunavut	OEL TWA [ppm]	200 ppm
Northwest Territories	OEL STEL [ppm]	250 ppm
Northwest Territories	OEL TWA [ppm]	200 ppm
Ontario	OEL STEL [ppm]	250 ppm
Ontario	OEL TWA [ppm]	200 ppm
Prince Edward Island	OEL STEL [ppm]	250 ppm
Prince Edward Island	OEL TWA [ppm]	200 ppm
Québec	VECD (OEL STEL)	328 mg/m ³
Québec	VECD (OEL STEL) [ppm]	250 ppm
Québec	VEMP (OEL TWA)	262 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	200 ppm
Saskatchewan	OEL STEL [ppm]	250 ppm
Saskatchewan	OEL TWA [ppm]	200 ppm
Yukon	OEL STEL	310 mg/m ³
Yukon	OEL STEL [ppm]	250 ppm
Yukon	OEL TWA	260 mg/m ³
Yukon	OEL TWA [ppm]	200 ppm
n-Propanol (71-23-8)		
USA ACGIH	ACGIH OEL TWA [ppm]	100 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) [1]	500 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	200 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA NIOSH	NIOSH REL (TWA)	500 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	200 ppm
USA NIOSH	NIOSH REL (STEL)	625 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	250 ppm
USA IDLH	IDLH [ppm]	800 ppm
Alberta	OEL STEL	984 mg/m ³
Alberta	OEL STEL [ppm]	400 ppm
Alberta	OEL TWA	492 mg/m ³
Alberta	OEL TWA [ppm]	200 ppm
British Columbia	OEL TWA [ppm]	100 ppm
Manitoba	OEL TWA [ppm]	100 ppm
New Brunswick	OEL STEL	614 mg/m ³
New Brunswick	OEL STEL [ppm]	250 ppm
New Brunswick	OEL TWA	492 mg/m ³
New Brunswick	OEL TWA [ppm]	200 ppm
Newfoundland & Labrador	OEL TWA [ppm]	100 ppm
Nova Scotia	OEL TWA [ppm]	100 ppm
Nunavut	OEL STEL [ppm]	400 ppm
Nunavut	OEL TWA [ppm]	200 ppm
Northwest Territories	OEL STEL [ppm]	400 ppm
Northwest Territories	OEL TWA [ppm]	200 ppm
Ontario	OEL TWA [ppm]	100 ppm
Prince Edward Island	OEL TWA [ppm]	100 ppm
Québec	VEMP (OEL TWA) [ppm]	100 ppm
Saskatchewan	OEL STEL [ppm]	400 ppm
Saskatchewan	OEL TWA [ppm]	200 ppm
Yukon	OEL STEL	625 mg/m ³
Yukon	OEL STEL [ppm]	250 ppm
Yukon	OEL TWA	500 mg/m ³
Yukon	OEL TWA [ppm]	200 ppm
Ethyl acetate (141-78-6)		
USA ACGIH	ACGIH OEL TWA [ppm]	400 ppm
USA OSHA	OSHA PEL (TWA) [1]	1400 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	400 ppm
USA NIOSH	NIOSH REL (TWA)	1400 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	400 ppm
USA IDLH	IDLH [ppm]	2000 ppm (10% LEL)
Alberta	OEL TWA	1440 mg/m ³
Alberta	OEL TWA [ppm]	400 ppm
British Columbia	OEL TWA [ppm]	150 ppm
Manitoba	OEL TWA [ppm]	400 ppm
New Brunswick	OEL TWA	1440 mg/m ³
New Brunswick	OEL TWA [ppm]	400 ppm
Newfoundland & Labrador	OEL TWA [ppm]	400 ppm
Nova Scotia	OEL TWA [ppm]	400 ppm
Nunavut	OEL STEL [ppm]	500 ppm
Nunavut	OEL TWA [ppm]	400 ppm
Northwest Territories	OEL STEL [ppm]	500 ppm
Northwest Territories	OEL TWA [ppm]	400 ppm
Ontario	OEL TWA [ppm]	400 ppm
Prince Edward Island	OEL TWA [ppm]	400 ppm

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Québec	VEMP (OEL TWA)	1440 mg/m ³
Québec	VEMP (OEL TWA) [ppm]	400 ppm
Saskatchewan	OEL STEL [ppm]	500 ppm
Saskatchewan	OEL TWA [ppm]	400 ppm
Yukon	OEL STEL	1400 mg/m ³
Yukon	OEL STEL [ppm]	400 ppm
Yukon	OEL TWA	1400 mg/m ³
Yukon	OEL TWA [ppm]	400 ppm
n-Butyl acetate (123-86-4)		
USA ACGIH	ACGIH OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
USA ACGIH	ACGIH OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
USA OSHA	OSHA PEL (TWA) [1]	710 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	150 ppm
USA NIOSH	NIOSH REL (TWA)	710 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	150 ppm
USA NIOSH	NIOSH REL (STEL)	950 mg/m ³
USA NIOSH	NIOSH REL STEL [ppm]	200 ppm
USA IDLH	IDLH [ppm]	1700 ppm (10% LEL)
Alberta	OEL STEL	950 mg/m ³
Alberta	OEL STEL [ppm]	200 ppm
Alberta	OEL TWA	713 mg/m ³
Alberta	OEL TWA [ppm]	150 ppm
British Columbia	OEL STEL [ppm]	150 ppm (Butyl acetate, all isomers)
British Columbia	OEL TWA [ppm]	50 ppm (Butyl acetate, all isomers)
Manitoba	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Manitoba	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
New Brunswick	OEL STEL	950 mg/m ³
New Brunswick	OEL STEL [ppm]	200 ppm
New Brunswick	OEL TWA	713 mg/m ³
New Brunswick	OEL TWA [ppm]	150 ppm
Newfoundland & Labrador	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Newfoundland & Labrador	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Nova Scotia	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Nova Scotia	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Nunavut	OEL STEL [ppm]	200 ppm
Nunavut	OEL TWA [ppm]	150 ppm
Northwest Territories	OEL STEL [ppm]	200 ppm
Northwest Territories	OEL TWA [ppm]	150 ppm
Ontario	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Ontario	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Prince Edward Island	OEL STEL [ppm]	150 ppm (Butyl acetates, all isomers)
Prince Edward Island	OEL TWA [ppm]	50 ppm (Butyl acetates, all isomers)
Québec	VECD (OEL STEL) [ppm]	150 ppm (Butyl acetate (all isomers))
Québec	VEMP (OEL TWA) [ppm]	50 ppm
Saskatchewan	OEL STEL [ppm]	200 ppm
Saskatchewan	OEL TWA [ppm]	150 ppm
Yukon	OEL STEL	950 mg/m ³
Yukon	OEL STEL [ppm]	200 ppm
Yukon	OEL TWA	710 mg/m ³
Yukon	OEL TWA [ppm]	150 ppm
Ethyl alcohol (64-17-5)		

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA ACGIH	ACGIH OEL STEL [ppm]	1000 ppm
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA OSHA	OSHA PEL (TWA) [1]	1900 mg/m ³
USA OSHA	OSHA PEL (TWA) [2]	1000 ppm
USA NIOSH	NIOSH REL (TWA)	1900 mg/m ³
USA NIOSH	NIOSH REL TWA [ppm]	1000 ppm
USA IDLH	IDLH [ppm]	3300 ppm (10% LEL)
Alberta	OEL TWA	1880 mg/m ³
Alberta	OEL TWA [ppm]	1000 ppm
British Columbia	OEL STEL [ppm]	1000 ppm
Manitoba	OEL STEL [ppm]	1000 ppm
New Brunswick	OEL TWA	1880 mg/m ³
New Brunswick	OEL TWA [ppm]	1000 ppm
Newfoundland & Labrador	OEL STEL [ppm]	1000 ppm
Nova Scotia	OEL STEL [ppm]	1000 ppm
Nunavut	OEL STEL [ppm]	1250 ppm
Nunavut	OEL TWA [ppm]	1000 ppm
Northwest Territories	OEL STEL [ppm]	1250 ppm
Northwest Territories	OEL TWA [ppm]	1000 ppm
Ontario	OEL STEL [ppm]	1000 ppm
Prince Edward Island	OEL STEL [ppm]	1000 ppm
Québec	VECD (OEL STEL) [ppm]	1000 ppm
Saskatchewan	OEL STEL [ppm]	1250 ppm
Saskatchewan	OEL TWA [ppm]	1000 ppm
Yukon	OEL STEL	1900 mg/m ³
Yukon	OEL STEL [ppm]	1000 ppm
Yukon	OEL TWA	1900 mg/m ³
Yukon	OEL TWA [ppm]	1000 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.

Personal Protective Equipment: Safety glasses with side-shields. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side-shields. Faceshield as determined by task.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State : Liquid

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Appearance	: Colorless
Odor	: Solvent
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: 56 – 172 °C (132.8 – 341.6 °F)
Flash Point	: < -7 °C (19.4 °F) [Closed Cup]
Auto-ignition Temperature	: 191.67 °C (377.01 °F) (Minimum)
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: 1 % (Minimum)
Upper Flammable Limit	: 36 % (Maximum)
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Density	: 7 lb/gal (US)
Specific Gravity	: 0.84 (Water=1)
Solubility	: Slight.
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
VOC content	: 70 – 85 % 5 to 6 LB/US gal (590 to 720 g/l) As per 40 CFR Part 51.100(s).

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2. Chemical Stability:

Highly flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

10.3. Possibility of Hazardous Reactions:

Hazardous polymerization will not occur.

10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials:

reactive metals (Al, K, Zn). halogens (F, Cl, Br, I). Alkalis. Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Carbon oxides (CO, CO₂). aldehydes, ketones. Unidentified organic compounds. Toxic gases may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Harmful if swallowed.

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:

SAFETY-KLEEN MULTI-USE LACQUER THINNER	
ATE US/CA (oral)	>1,332.21 mg/kg body weight

Skin Corrosion/Irritation: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: May cause genetic defects.

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (central nervous system, kidneys, liver, respiratory tract, peripheral nervous system, retina) through prolonged or repeated exposure.

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Causes damage to organs (blood). May cause drowsiness or dizziness.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. This product contains methanol below its classification cutoff level. If this product is ingested in large quantities, the methanol in it may cause may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

Chronic Symptoms: May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May cause genetic defects.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Toluene (108-88-3)	
LD50 Oral Rat	2600 mg/kg
LD50 Dermal Rabbit	12000 mg/kg
LC50 Inhalation Rat	12.5 mg/l/4h
Acetone (67-64-1)	
LD50 Oral Rat	5800 mg/kg
LD50 Dermal Rabbit	> 15700 mg/kg
LC50 Inhalation Rat	50100 mg/m ³ (Exposure time: 8 h)
Solvent naphtha, petroleum, light aliphatic (64742-89-8)	
LD50 Dermal Rabbit	3000 mg/kg
Isopropyl alcohol (67-63-0)	
LD50 Dermal Rabbit	4059 mg/kg
LC50 Inhalation Rat	> 10000 ppm (Exposure time: 6 h)
Methyl ethyl ketone (78-93-3)	
LD50 Oral Rat	2483 mg/kg
LD50 Dermal Rabbit	5000 mg/kg
LC50 Inhalation Rat	11700 ppm/4h
Ethyl 3-ethoxypropanoate (763-69-9)	
LD50 Oral Rat	5 g/kg
LD50 Dermal Rabbit	> 9500 mg/kg
LC50 Inhalation Rat	> 5.96 mg/l (Exposure time: 6 h)
Isobutyl acetate (110-19-0)	
LD50 Oral Rat	15400 mg/kg
LD50 Dermal Rabbit	> 17400 mg/kg
2-Pentanone, 4-methyl- (108-10-1)	
LD50 Oral Rat	2080 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	2000 – 4000 ppm/4h
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 Oral Rat	3500 mg/kg
LD50 Dermal Rabbit	> 4350 mg/kg
LC50 Inhalation Rat	29.08 mg/l/4h
Methanol (67-56-1)	
LD50 Oral Rat	6200 mg/kg
LD50 Dermal Rabbit	15840 mg/kg
LC50 Inhalation Rat	22500 ppm (Exposure time: 8 h)

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

n-Propanol (71-23-8)	
LD50 Dermal Rabbit	4049 mg/kg
LC50 Inhalation Rat	> 33.8 mg/l/4h
Ethyl acetate (141-78-6)	
LD50 Oral Rat	5620 mg/kg
LD50 Dermal Rabbit	> 18000 mg/kg
LC50 Inhalation Rat	4000 ppm/4h
n-Butyl acetate (123-86-4)	
LD50 Oral Rat	10768 mg/kg
LD50 Dermal Rabbit	> 17600 mg/kg
LC50 Inhalation Rat	> 20 mg/l/4h (Results consistent with studies as part of EU REACH Dossier)
Ethyl alcohol (64-17-5)	
LD50 Oral Rat	7060 mg/kg
LC50 Inhalation Rat	133.8 mg/l/4h
Toluene (108-88-3)	
IARC Group	3
Isopropyl alcohol (67-63-0)	
IARC Group	3
2-Pentanone, 4-methyl- (108-10-1)	
IARC Group	2B
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Toxic to aquatic life with long lasting effects.

Toluene (108-88-3)	
LC50 Fish 1	15.22 – 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	5.46 – 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
NOEC Chronic Fish	1.4 mg/l
Acetone (67-64-1)	
LC50 Fish 1	4.74 – 6.33 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 - Crustacea [1]	10294 – 17704 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	6210 – 8120 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	12600 – 12700 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Isopropyl alcohol (67-63-0)	
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Methyl ethyl ketone (78-93-3)	
LC50 Fish 1	3130 – 3320 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	> 520 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	5091 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Ethyl 3-ethoxypropanoate (763-69-9)	
LC50 Fish 1	62 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	970 mg/l (Exposure time: 48 h - Species: Daphnia magna)

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Isobutyl acetate (110-19-0)	
LC50 Fish 1	17 mg/l (Exposure time: 96 h - Species: Oryzias latipes)
2-Pentanone, 4-methyl- (108-10-1)	
LC50 Fish 1	496 – 514 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	170 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LC50 Fish 1	13.4 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	3.82 mg/l (Exposure time: 48 h - Species: water flea)
LC50 Fish 2	2.661 – 4.093 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [2]	0.6 mg/l (Exposure time: 48 h - Species: Gammarus lacustris)
Methanol (67-56-1)	
LC50 Fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
n-Propanol (71-23-8)	
LC50 Fish 1	4480 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	3642 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	3339 – 3977 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Ethyl acetate (141-78-6)	
LC50 Fish 1	220 – 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
n-Butyl acetate (123-86-4)	
LC50 Fish 1	100 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 Fish 2	17 – 19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
NOEC Chronic Crustacea	23 mg/l
NOEC Chronic Algae	296 mg/l
Ethyl alcohol (64-17-5)	
LC50 Fish 1	12 – 16 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	9268 – 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and Degradability

SAFETY-KLEEN MULTI-USE LACQUER THINNER	
Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

SAFETY-KLEEN MULTI-USE LACQUER THINNER	
Bioaccumulative Potential	Not established.
Toluene (108-88-3)	
Partition coefficient n-octanol/water (Log Pow)	2.7
Acetone (67-64-1)	
BCF Fish 1	0.69
Partition coefficient n-octanol/water (Log Pow)	-0.24
Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water (Log Pow)	0.05 (at 25 °C)
Methyl ethyl ketone (78-93-3)	
Partition coefficient n-octanol/water (Log Pow)	0.3

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Ethyl 3-ethoxypropanoate (763-69-9)	
Partition coefficient n-octanol/water (Log Pow)	1.35
Isobutyl acetate (110-19-0)	
BCF Fish 1	(no significant bioconcentration)
Partition coefficient n-octanol/water (Log Pow)	1.72
2-Pentanone, 4-methyl- (108-10-1)	
Partition coefficient n-octanol/water (Log Pow)	1.19
Xylenes (o-, m-, p- isomers) (1330-20-7)	
BCF Fish 1	0.6 – 15
Partition coefficient n-octanol/water (Log Pow)	2.77 – 3.15
Methanol (67-56-1)	
BCF Fish 1	< 10
Partition coefficient n-octanol/water (Log Pow)	-0.77
n-Propanol (71-23-8)	
Partition coefficient n-octanol/water (Log Pow)	0.25 – 0.34
Ethyl acetate (141-78-6)	
BCF Fish 1	30
Partition coefficient n-octanol/water (Log Pow)	0.6
n-Butyl acetate (123-86-4)	
Partition coefficient n-octanol/water (Log Pow)	1.81 (at 23 °C)
Ethyl alcohol (64-17-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.32

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name	: PAINT RELATED MATERIAL
Hazard Class	: 3
Identification Number	: UN1263
Label Codes	: 3
Packing Group	: II



SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

ERG Number : 128

14.2. In Accordance with IMDG

Proper Shipping Name : PAINT RELATED MATERIAL

Hazard Class : 3

Identification Number : UN1263

Label Codes : 3

Packing Group : II

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-E



14.3. In Accordance with IATA

Proper Shipping Name : PAINT

Hazard Class : 3

Identification Number : UN1263

Label Codes : 3

Packing Group : II

ERG Code (IATA) : 3L



14.4. In Accordance with TDG

Proper Shipping Name : PAINT RELATED MATERIAL

Hazard Class : 3

Identification Number : UN1263

Label Codes : 3

Packing Group : II



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

SAFETY-KLEEN MULTI-USE LACQUER THINNER	
SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Carcinogenicity Health hazard - Reproductive toxicity Health hazard - Skin corrosion or Irritation Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Germ cell mutagenicity Health hazard - Acute toxicity (any route of exposure) Health hazard - Serious eye damage or eye irritation
Toluene (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	1 %
Acetone (67-64-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb
Solvent naphtha, petroleum, light aliphatic (64742-89-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
SARA Section 313 - Emission Reporting	1 % (only if manufactured by the strong acid process, no supplier notification)
Methyl ethyl ketone (78-93-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb
Ethyl 3-ethoxypropanoate (763-69-9)	

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Isobutyl acetate (110-19-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb listed under Butyl acetate
2-Pentanone, 4-methyl- (108-10-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	0.1 %
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %
Methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %
n-Propanol (71-23-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Ethyl acetate (141-78-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb
n-Butyl acetate (123-86-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
CERCLA RQ	5000 lb listed under Butyl acetate
Ethyl alcohol (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

CAS-No.	Name	Percent by Weight
108-88-3	Toluene	≤ 50%
67-63-0	Isopropyl alcohol	2 – 15%
108-10-1	2-Pentanone, 4-methyl-	2 – 5%
1330-20-7	Xylenes (o-, m-, p- isomers)	≤ 5%
67-56-1	Methanol	≤ 5%

15.2. US State Regulations

California Proposition 65



WARNING: This product can expose you to 2-Pentanone, 4-methyl-, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Toluene (108-88-3)		X		
2-Pentanone, 4-methyl- (108-10-1)	X	X		
Methanol (67-56-1)		X		

Toluene (108-88-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - Pennsylvania - RTK (Right to Know) List
 U.S. - Massachusetts - Right To Know List
 U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Acetone (67-64-1)

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Isopropyl alcohol (67-63-0)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Methyl ethyl ketone (78-93-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Isobutyl acetate (110-19-0)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

2-Pentanone, 4-methyl- (108-10-1)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Xylenes (o-, m-, p- isomers) (1330-20-7)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Methanol (67-56-1)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

n-Propanol (71-23-8)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List

Ethyl acetate (141-78-6)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

n-Butyl acetate (123-86-4)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Ethyl alcohol (64-17-5)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

15.3. Canadian Regulations

Toluene (108-88-3)
Listed on the Canadian DSL (Domestic Substances List)
Acetone (67-64-1)
Listed on the Canadian DSL (Domestic Substances List)
Solvent naphtha, petroleum, light aliphatic (64742-89-8)
Listed on the Canadian DSL (Domestic Substances List)
Isopropyl alcohol (67-63-0)
Listed on the Canadian DSL (Domestic Substances List)
Methyl ethyl ketone (78-93-3)
Listed on the Canadian DSL (Domestic Substances List)
Ethyl 3-ethoxypropanoate (763-69-9)
Listed on the Canadian DSL (Domestic Substances List)
Isobutyl acetate (110-19-0)
Listed on the Canadian DSL (Domestic Substances List)
2-Pentanone, 4-methyl- (108-10-1)
Listed on the Canadian DSL (Domestic Substances List)
Xylenes (o-, m-, p- isomers) (1330-20-7)
Listed on the Canadian DSL (Domestic Substances List)
Methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)
n-Propanol (71-23-8)
Listed on the Canadian DSL (Domestic Substances List)
Ethyl acetate (141-78-6)
Listed on the Canadian DSL (Domestic Substances List)
n-Butyl acetate (123-86-4)
Listed on the Canadian DSL (Domestic Substances List)
Ethyl alcohol (64-17-5)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision	: 07/01/2022
Indication of Changes	: Review of data. Language modified.
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2

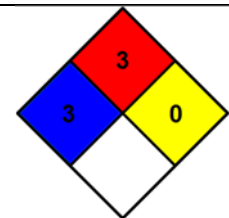
SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

- NFPA Health Hazard** : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
- NFPA Fire Hazard** : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
- NFPA Reactivity Hazard** : 0 - Material that in themselves are normally stable, even under fire conditions.



The information contained herein is correct to the best of our knowledge, information, and belief and is designed only as guidance for the handling, use, processing, storage, transportation, disposal, and release of the product. User assumes all risks incident to use of this product and shall determine the quality and suitability of the product for its use. Supplier offers no warranty, express or implied, whatsoever, including warranties of merchantability or fitness for a particular purpose or otherwise, and specifically disclaims any and all liability for incidental, consequential, or other damages arising out the use or misuse of the product. The information provided relates only to the specific material provided and may not be valid if used in combination with any other materials or process, unless specified herein.

SAFETY-KLEEN MULTI-USE LACQUER THINNER

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

NA GHS SDS 2015 (Can, US)



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

Part Number

50, 699, 6861, 9699

Synonyms

None

Product Use Recommended 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.

Restrictions on Use

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

MANUFACTURER

Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149
U.S.A.

SUPPLIER (in Canada)

Safety-Kleen Canada, Inc.
25 Regan Road
Brampton, Ontario, L7A 1B2
Canada

www.safety-kleen.com

Phone: 1-800-669-5740

Emergency Phone #: 1-800-468-1760

Issue Date

January 21, 2020

Supersedes Issue Date

December 1, 2016

Original Issue Date

December 1, 1989

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Hazardous Products Regulations (HPR) (SOR/2015-17)

Flammable Liquids - Category 4

Aspiration Hazard - Category 1

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, Category 3

Specific target organ toxicity - Repeated exposure - Category 1

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. 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, water fog. 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. IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/physician. 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(s) of Unknown Acute Toxicity

Inhalation 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 sensitizer, 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.

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

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

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

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

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

1-Methyl-2-pyrrolidone	872-50-4
Ontario	400 mg/m ³ TWA
Yukon	100 ppm TWA ; 400 mg/m ³ TWA; 125 ppm STEL ; 500 mg/m ³ STEL
Dipropylene glycol monomethyl ether	34590-94-8
Alberta	100 ppm TWA ; 606 mg/m ³ TWA; 150 ppm STEL ; 909 mg/m ³ STEL; Substance may be readily absorbed through intact skin
British Columbia; Northwest Territories; Nunavut	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 ³ TWA; 150 ppm STEL ; 909 mg/m ³ 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
Ontario	100 ppm TWA; 150 ppm STEL; Danger of cutaneous absorption
Prince Edward Island	100 ppm TWA; 150 ppm STEL
Quebec	100 ppm TWA _{EV} ; 606 mg/m ³ TWA _{EV} ; 150 ppm STEV ; 909 mg/m ³ 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
Ethanolamine	141-43-5
Alberta; New Brunswick	3 ppm TWA ; 7.5 mg/m ³ TWA; 6 ppm STEL ; 15 mg/m ³ STEL
British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan	3 ppm TWA; 6 ppm STEL
Manitoba	3 ppm TWA

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

Quebec	3 ppm TWAEV ; 7.5 mg/m ³ TWAEV; 6 ppm STEV ; 15 mg/m ³ STEV
Yukon	3 ppm TWA ; 6 mg/m ³ TWA; 6 ppm STEL ; 12 mg/m ³ STEL
ACGIH:	3 ppm TWA; 6 ppm STEL
Naphthalene	91-20-3
Alberta	10 ppm TWA ; 52 mg/m ³ TWA; 15 ppm STEL ; 79 mg/m ³ STEL Substance may be readily absorbed through intact skin
British Columbia	10 ppm TWA; Skin notation
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 ³ TWA; 15 ppm STEL ; 79 mg/m ³ STEL
Northwest Territories; Nunavut	10 ppm TWA; 15 ppm STEL; Skin notation
Ontario	10 ppm TWA; Danger of cutaneous absorption
Prince Edward Island	10 ppm TWA
Quebec	10 ppm TWAEV ; 52 mg/m ³ TWAEV; 15 ppm STEV ; 79 mg/m ³ STEV
Saskatchewan	10 ppm TWA; 15 ppm STEL; Potentially harmful after absorption through skin or mucous membranes
Yukon	10 ppm TWA ; 50 mg/m ³ TWA; 15 ppm STEL ; 75 mg/m ³ STEL
ACGIH:	10 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous route

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.

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

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/Skin Protection

Wear appropriate chemical resistant gloves. 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.

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

Appearance	Clear.	Physical State	Liquid
Odor	Characteristic	Color	Brown.
Odor Threshold	Not available	pH	11
Melting Point	<-12 °C (10 °F)	Boiling Point	171 °C (340 °F Initial)
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	1 (Butyl acetate = 1)	Flammability (solid, gas)	Not available
Autoignition Temperature	443 °C (829 °F Approximate)	Flash Point	>60 °C (140 °F)
Lower Explosive Limit	0.8 vol% (Approximate)	Decomposition temperature	Not available
Upper Explosive Limit	7 vol% (Approximate)	Vapor Pressure	<0.4 mmHg @ 68°F °C (20° C)
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	0.95 (Water = 1)
Water Solubility	(Complete)	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	7.9 lb/gal (US)
Volatile Organic Compounds (As Regulated)	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.		

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

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:

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/m³ 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 5.35 g/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/m³ 1 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Vapor	0.6955 mg/L

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

Oral	> 2000 mg/kg
------	--------------

Immediate Effects

Fatal if inhaled, eye damage, skin damage, respiratory system damage, respiratory tract irritation, skin sensitizer, 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 burns, 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

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

Solvent naphtha (petroleum), heavy arom.	64742-94-5
--	------------

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

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
1-Methyl-2-pyrrolidone	872-50-4
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
Dipropylene glycol monomethyl ether	34590-94-8
Fish:	LC50 96 h Pimephales promelas >10000 mg/L [static]
Invertebrate:	LC50 48 h Daphnia magna 1919 mg/L IUCLID
Oleic acid	112-80-1
Fish:	LC50 96 h Pimephales promelas 205 mg/L [static]
Ethanolamine	141-43-5
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 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
Naphthalene	91-20-3
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.

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

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

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: monothenolamine)

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

Marine pollutant

Further information: Marine pollutant.

IMDG Information:

Shipping Name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

UN#: UN3267

Marine pollutant

Further information: Marine pollutant.

TDG Information:

Shipping Name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

Hazard Class: 8

UN#: UN3267

Packing Group: III

Required Label(s): 8 CORROSIVE

Marine pollutant

Further information: Marine pollutant.

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

1-Methyl-2-pyrrolidone	872-50-4
IBC Code:	Category Y

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

Oleic acid	112-80-1
IBC Code:	Category Y
Ethanolamine	141-43-5
IBC Code:	Category Y
Naphthalene	91-20-3
IBC Code:	Category X (molten)

Further 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
TSCA 12b:	Section 5 , 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) 2016 reporting categories

Acute Health: Yes Chronic Health: Yes Fire: Yes Pressure: No Reactivity: No

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	CA	MA	MN	NJ	PA
1-Methyl-2-pyrrolidone	872-50-4	No	Yes	Yes	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

Component Analysis - Inventory

Solvent naphtha (petroleum), heavy arom. (64742-94-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	No	No	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	No	Yes	Yes

1-Methyl-2-pyrrolidone (872-50-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

Dipropylene glycol monomethyl ether (34590-94-8)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Oleic acid (112-80-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Ethanolamine (141-43-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Naphthalene (91-20-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 3 Fire: 2 Instability: 0

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

Summary of Changes

Regulatory review and update.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD

Safety Data Sheet

Material Name: SAFETY-KLEEN IMMERSION CLEANER AND COLD PARTS CLEANER SOLVENT SDS ID: 82411

- Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; 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; MX – Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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.

Exhibit G-4

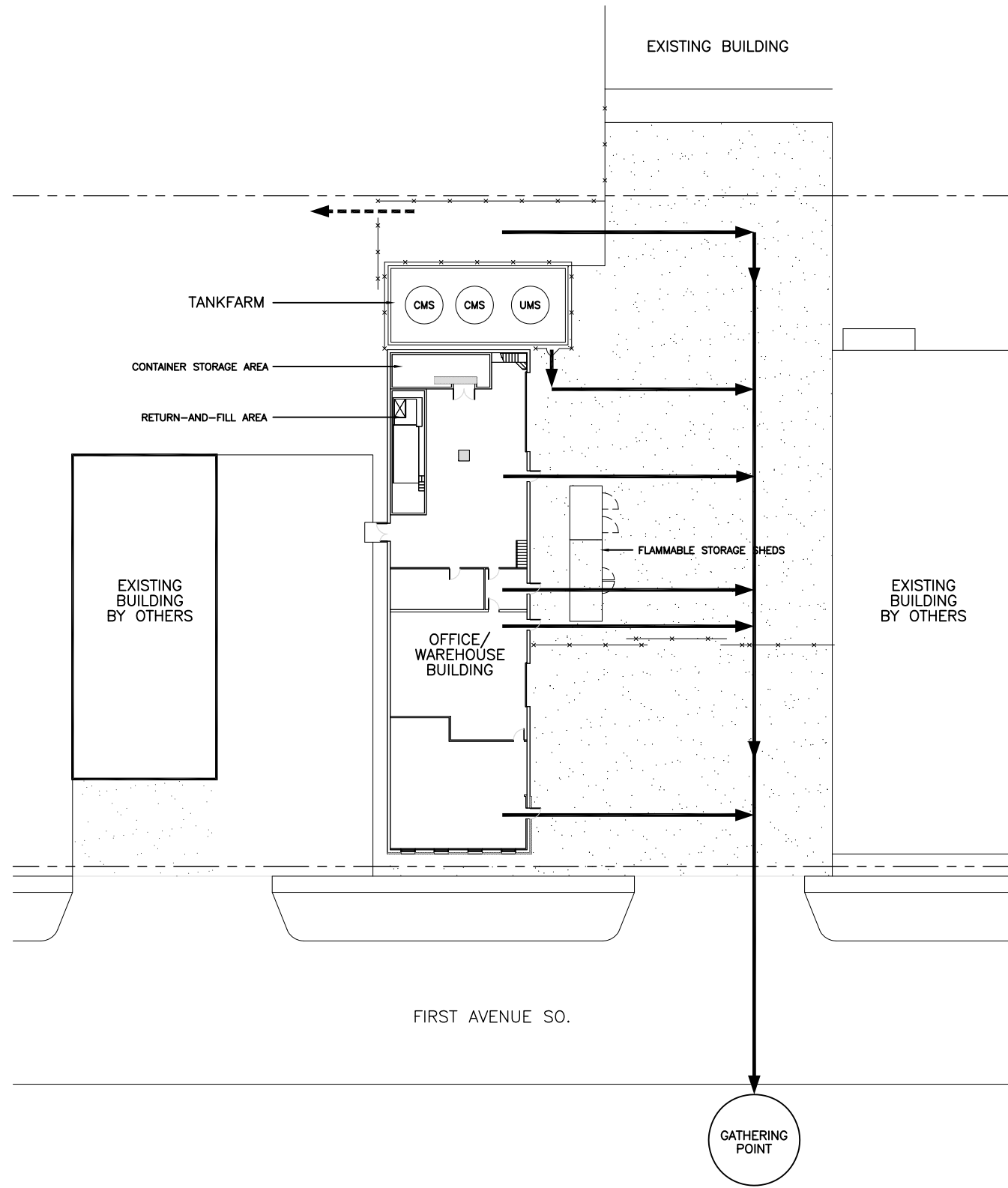
Example Employee Functions During an Emergency

Example Employee Emergency Functions (typical)

Job Title	Emergency Function
Emergency Coordinator	<ul style="list-style-type: none"> • Notify SK Emergency Response • Notify regulatory agencies • Notify Emergency Response agencies (Fire, Police) • Shut off Electricity (if needed) • Coordinate Evacuation (if needed) • Initiate Spill Response
Alternate Emergency Coordinator	<ul style="list-style-type: none"> • Function as Emergency Coordinator (above) • Assist Emergency Coordinator as directed
Sales and Service Personnel	<ul style="list-style-type: none"> • Assist Emergency Coordinator as directed
Material Handlers	<ul style="list-style-type: none"> • Assist Emergency Coordinator as directed
Administrative Support Staff	<ul style="list-style-type: none"> • Assist with Evacuation / headcount • Assist Emergency Coordinator as directed

Exhibit G-5

Site Evacuation Plan



SITE PLAN



Exhibit G-5

GENERAL NOTES

1. EMERGENCY EVACUATION ROUTES AS INDICATED WERE FIELD VERIFIED ON 3/27/23.
2. SIGNAL FOR EVACUATION WILL BE VERBAL OR BY INTERCOM.

LEGEND

- PRIMARY ROUTE
- SECONDARY ROUTE
- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FLIT - FUTURE TANK

PROPRIETARY STATEMENT

THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST 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 SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
EMERGENCY EVACUATION PLAN
 1537 FIRST AVE. SOUTH
 FARGO, N.D. 58103

SAFETY-KLEEN SYSTEMS, INC.
 42 LONGWATER DR. NORWELL, MA. 02061
 PHONE: 781-792-5000

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JZ	JZ	032723
0	ISSUED FOR PERMIT	JEK	KT	KT	051717
REVISIONS					

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	TDD	RAB			3-3-95
SERVICE CENTER LOCATION			SC-DWG. NO.	REV. NO.	
FARGO, ND.			7122-SP00-003	A	

Exhibit G-6

Quick Reference Guide

CONTINGENCY PLAN QUICK REFERENCE GUIDE

Safety-Kleen Systems, Inc.
 1537 1st Ave South
 Fargo, ND 58103
 Telephone (701) 557-9501

Facility Contacts:

Primary Emergency Coordinator Brian Larson Mobile Phone (24/7) 701-866-6624
 Alternate Emergency Coordinator Darrell Schlagel Mobile Phone (24/7) 701-866-6627
 Safety-Kleen Emergency Response (24/7) 800-468-1760

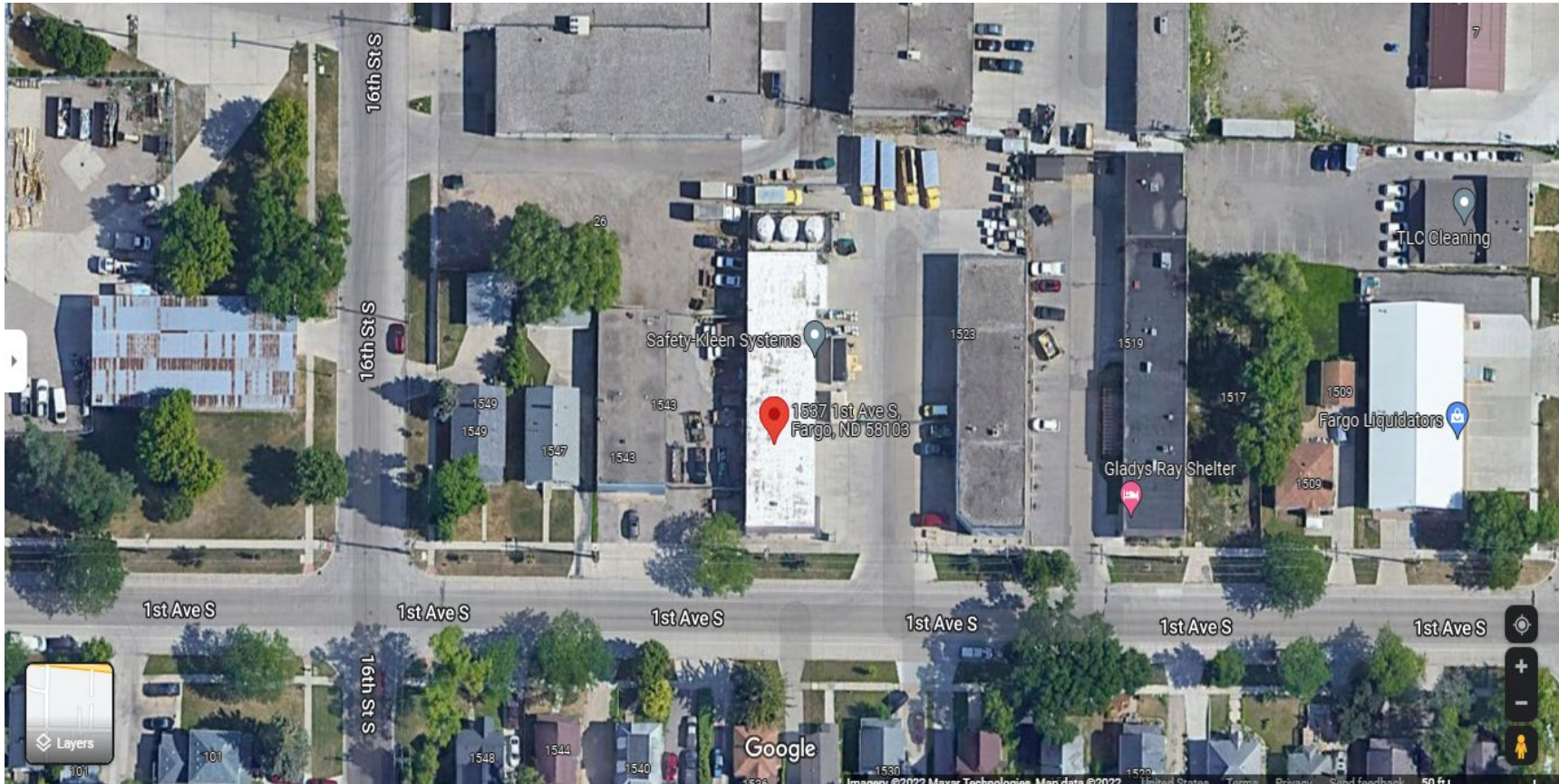
Note: This facility typically operates weekdays 7:00 AM – 5:00 PM

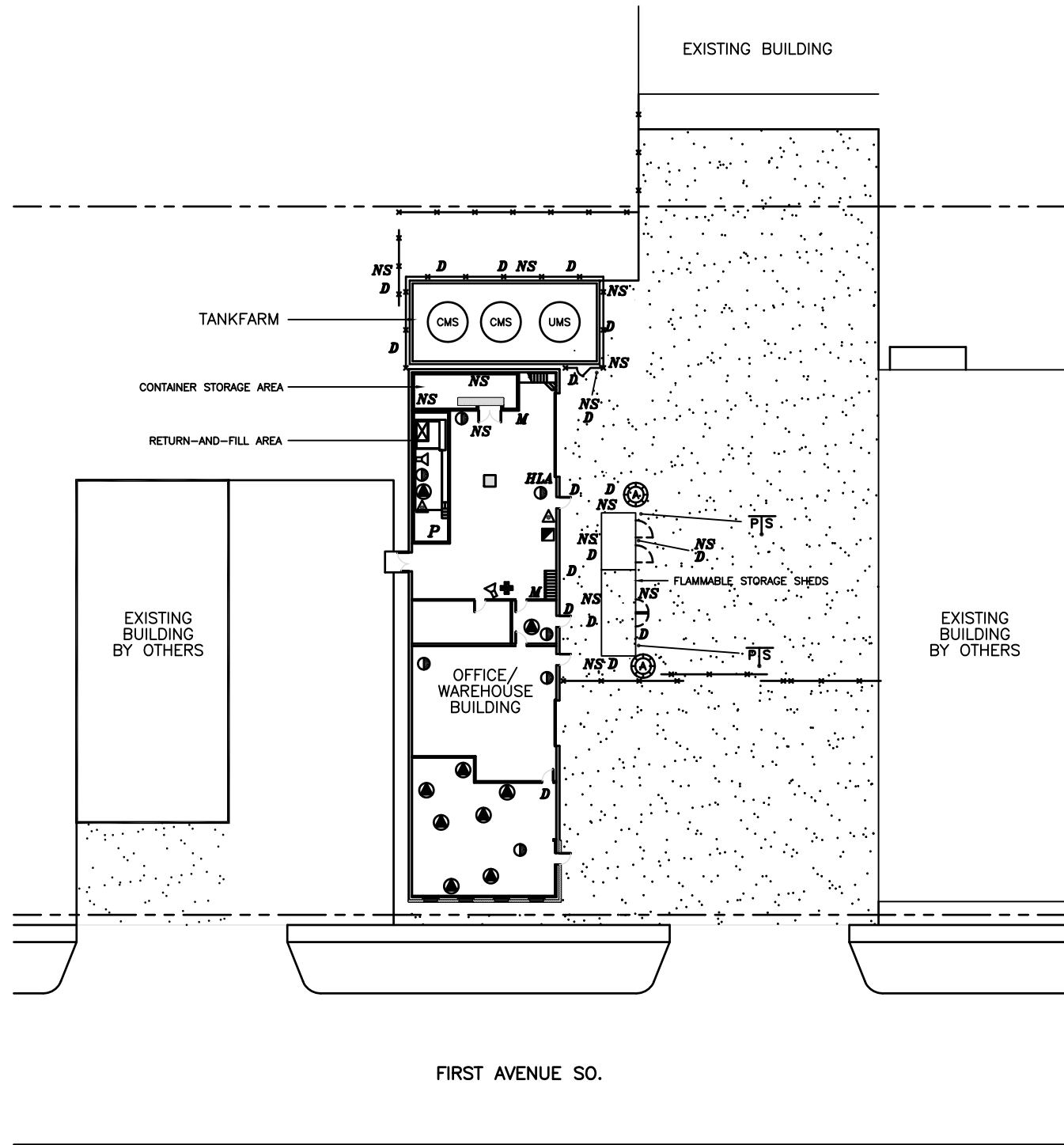
Hazardous Waste Storage Information

Name of Waste	Waste Codes/Hazards	Location Stored or Accumulated	Maximum Amounts Present	Response Notes	Special Notes to Hospital / Treatment Personnel
Waste Petroleum Naphtha Solvent-Bulked	D001 (Ignitability; flash point <140°F)	Bulk Storage Tank	11,125 Gallons	If contact occurs, remove contaminated clothing & 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.	If ingested, do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.
Paint Related Waste	D001 (Ignitability; flash point <140°F), F003, F005 (Methyl Ethyl Ketones, Acetone, MIBK), Toxicity	Transfer Waste Warehouse	Varies – Waste received from offsite generators	If contact occurs, remove contaminated clothing & wash before reuse. If contact with skin, flush with soap and water. Get medical attention if irritation develops. If contact with eyes, flush with water- seek medical attention. If inhaled, move to fresh air and keep at rest- seek medical attention.	If ingested, do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.

<p>Immersion Cleaner</p>	<p>Corrosive Liquid, Basic, Organic (Contains Petroleum Solvent 30-60%, 1-Methyl-2-pyrrolidone 10-30%, Dipropylene Glycol Monomethyl ether 7-13%, Oleic acid 5-10%, Ethanolamine 3-7%), D027, D039, D040 (Toxicity Characteristics)</p>	<p>Container Storage Area</p>	<p>Varies – Waste received from offsite generators</p>	<p>If contact occurs, remove contaminated clothing & wash before reuse. If contact with skin, flush with soap and water. Get medical attention if irritation develops. If contact with eyes, flush with water- seek medical attention. If inhaled, move to fresh air and keep at rest- seek medical attention.</p>	<p>If ingested, do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.</p>
<p>Various Other Hazardous Wastes Received from Offsite Generators</p>	<p>D001 (Ignitability; flash point <140°F) Varies – Wastes Received from Offsite Generators</p>	<p>Transfer Waste Warehouse</p>	<p>Varies – Waste received from offsite generators</p>	<p>If contact occurs, remove contaminated clothing & wash before reuse. If contact with skin, flush with soap and water. Get medical attention if irritation develops. If contact with eyes, flush with water- seek medical attention. If inhaled, move to fresh air and keep at rest- seek medical attention.</p>	<p>If ingested, do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration.</p>

Safety-Kleen Systems, Inc. Fargo ND
April 2023





GENERAL NOTES

1. EMERGENCY EQUIPMENT AS INDICATED WAS FIELD VERIFIED ON 12-7-94.

LEGEND

- ☉ DRY CHEMICAL FIRE EXTINGUISHER - HAND HELD TYPE (ABC)
- ⊕ FIRST-AID KIT
- ⚠ EYEWASH ONLY OR HANDSPRAY
- ☒ SPILL BOX/ABSORBENT MATERIAL
- ☎ TELEPHONE W/INTERCOM
- ⚡ HYDRANT - WATER
- 📢 ALERT (HORN)
- 🔥 SPRINKLER ALARM
- P/S PULL STATION
- P PANIC BUTTON
- HLA HIGH LEVEL ALARM
- D DANGER SIGN "DANGER UNAUTHORIZED PERSONEL KEEP OUT" OR "DANGER AUTHORIZED PERSONNEL ONLY"
- NS NO SMOKING
- M MEZZANINE
- UMS - USED PARTS WASHER SOLVENT
- CMS - CLEAN PARTS WASHER SOLVENT
- FUT - FUTURE TANK

PROPRIETARY STATEMENT

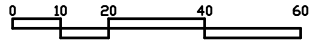
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SAFETY-KLEEN SYSTEMS, INC. AND IS PROPRIETARY AND CONFIDENTIAL INFORMATION. THIS DRAWING AND THE INFORMATION CONTAINED THEREIN MUST NOT BE DUPLICATED, USED, DIVULGED, REPRODUCED, COPIED, DISCLOSED OR APPROPRIATED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN AS EXPRESSLY AUTHORIZED BY SAFETY-KLEEN SYSTEMS, INC. THIS DRAWING MUST BE RETURNED PROMPTLY UPON REQUEST.

TITLE
EMERGENCY EQUIPMENT LOCATION PLAN

SAFETY-KLEEN SYSTEMS, INC.
2800 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE: 800-669-5740



SITE PLAN



0	ISSUED FOR PERMIT	JEK	KT	KT	051717	SCALE AS SHOWN	BY TDD	CHKD RAB	APPROVED	OPERATIONS	DATE 3-3-95
NO.	DESCRIPTION	BY	CHK	APPR	DATE	SERVICE CENTER LOCATION	SC-DWG. NO.	7122-SP00-002	REV. NO.	0	
REVISIONS											

Exhibit H-1

Training Plan

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

Job Title	Prior to Starting Work	On The Job	Annually	When Regulations or Procedures Change
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

OUTLINE OF TRAINING PROGRAM

Each employee is trained to operate and maintain the facility safely, and to understand hazards unique to his job assignment. New facility managers must complete an introductory training program, with annual review and update thereafter.

ORGANIZATION STRUCTURE AND JOB DESCRIPTIONS

Environmental compliance and training of facility employees is the responsibility of the facility manager. The Safety-Kleen Corporate Office provides a training program to be executed annually. The training program includes instruction on hazardous waste management for facility personnel in accordance with 40 CFR 264.16 (a)(2). Example Job descriptions that highlight typical functions for branch personnel associated with hazardous waste management are included as Exhibit H-2.

Branch General or Service Center Manager

The Branch General/Service Center Manager serves as the overall facility manager and is ultimately responsible for the operations at the facility. The Sales and Service representatives, Administrators, and Material Handlers (warehouse employees) report to the Branch General/Service Center Manager. The Branch General/Service Center Manager must provide the training and materials necessary for the branch employees to execute their duties. With respect to environmental compliance, he/she 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 on 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) Act in accordance with the contingency plan and notify the proper authorities during an emergency, remediate the situation to the best of his/her abilities, and submit necessary reports to the corporate office; and
- g) Maintain all environmental records (such as manifests, training records, and analytical results and spill reports) on file.

Corporate Compliance Department

Safety-Kleen's Corporate Environmental Compliance Department has personnel on staff that provides guidance to divisional and regional personnel for training, permitting and other compliance issues for the Safety-Kleen facilities in a given geographic area of the country.

DESCRIPTION OF THE TRAINING PROGRAM

Employee training is accomplished using classroom, electronic (i.e., video, e-Learning), written, and on-the-job methods. Trainers conducting the annual HAZWOPER/RCRA refresher class have completed the initial and annual HAZWOPER class. In addition, these individuals are familiar with the site specific requirements to address the regulatory requirements specific to this facility. 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 Environmental Compliance and Health and Safety Departments ensure that the Branch General Manager or his/her designate has received adequate training to train all branch personnel.

Training of New Branch or Service Center Managers

New Branch and Service Center Managers are provided regulatory training before they begin their new positions. Their training may include a combination of on site, on-the-job, and offsite classroom training. While being trained, the new Branch or Service Center manager reviews all environmental records and learns the record keeping requirements. These records include: manifests, personnel records, training records, facility inspection records, and spill reports.

The training culminates with additional training at his/her new facility, at the direction of an environmental professional. This training includes at a minimum, 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 manager's facility and regulations unique to the state are discussed.

Training of New Branch Administrator

Branch Administrators are trained in the proper record keeping 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 it as required. Additional training is overseen by the Branch Manager, or other qualified personnel, and is done within six months of starting. It includes some of the items listed in the Training outline Exhibit H-3 that are applicable to the Administrator's job. In addition, the contingency plan must be reviewed with the Branch / Service Center Manager, or other qualified personnel, within the first four weeks of the Administrator starting work.

Training of New Sales & Service Representatives

New sales and service representatives are introduced to the Part B permit which includes waste analysis plans, preparedness and prevention plans, contingency plans, etc. The standard beginning class for a sales or service representative is a 2 week HAZWOPER and beginning RCRA class provided by Safety-Kleen. A sales and service representative may also be trained

as the designee for performing the facility inspection. Additional training may be provided in the form of CD, online or videotape presentations. The Contingency Plan must be reviewed with the Branch Manager before the sales representative formally begins their new position and annually thereafter. Items listed in the example training outline (Exhibit H-3) are completed within six months of starting.

Training of New Material Handlers

A material handler is trained to maintain the branch service center and assist the other branch employees in their tasks. This person may also be a designee for the facility inspection and must be trained by the Branch General Manager as such. Within four weeks of the material handler starting, the Branch General or Service Center Manager must review the contingency plan with him/her, and within six months the items listed in the example training outline (Exhibit H-3) must be reviewed.

Annual Training

On an annual basis, employees are trained in the HAZWOPER update using a program prepared and updated annually by the Safety-Kleen regional and/or Corporate Compliance offices and Safety Department office. It generally includes updates on environmental regulations, an in-depth review of the contingency plan, other key aspects of the Part B permit and changes in regulations.

Facility employees must annually review training items such as those listed in the example training outline. This review may be in the form of online programs, safety meetings, or videotapes and a review and discussion of the storage facility permit application. In addition, periodic memoranda on changes in environmental & safety regulations are issued by the Regional and/or Corporate offices and must be read and discussed by facility personnel.

TRAINING RECORDS

Employee training is documented using hard copy and electronic records. The training course syllabuses, training signature sheets and test results, if given, must be maintained on file at the facility. Employees may not work in unsupervised positions until the contingency plan has been reviewed and they understand emergency response procedures. Training records are kept until closure of the facility, and /or three (3) years from the date an employee is terminated from the facility, in accordance with 40 CFR 264.16(e). Records for employees transferring within the company will be sent to the employee's new facility. Many training records and test results will be maintained electronically.

Exhibit H-2

Example Job Descriptions

BRANCH GENERAL MANAGER/SERVICE CENTER MANAGER

The Branch Manager has overall responsibility for the facility operations and maintenance, and directs sales activities within a defined geographic area. He or she is responsible for the proper operations and profitability of the Service Center. The Branch Manager typically also functions as the emergency coordinator.

Responsibilities:

- Collaborate with Sales Managers to enhance branch sales performance.
- Lead the facility employees to maximize revenues and client satisfaction.
- Manage administrative and warehouse team.
- Maximize branch profitability through sales volume, margin attainment, and cost controls.
- Branch adherence to operational guidelines.
- Conduct weekly branch meetings with Route Sales and Service professionals to drive branch performance and promote teamwork.
- Protect branch business through excellent customer service.
- Manage customer service and response time through Customer Retention Management system.
- Meet with customers to validate customer expectations are being met.
- Hire, train and develop all branch employees.
- Ensure branch Environmental, Health and Safety (EHS) Compliance.
- Ensure all training and compliance documentation is maintained.

Requirements:

- Required attendance to a continuous (2) two week long on-boarding and regulatory training course that will be held out of town.
- High School diploma or GED required. Degree preferred.
- 7+ years of sales and operations management experience.
- Profit and Loss responsibility.
- Strong understanding of sales process.
- Lean/Six Sigma training and experience preferred.
- Working knowledge of DOT and fleet compliance.
- Experience in interviewing, hiring and effectively managing others.
- High level of computer proficiency.
- Issue resolution, negotiating and problem solving skills.
- Integrity, judgment and decision-making skills.
- Good written and oral communication skills.
- Time management, organization, and attention to detail.
- Valid Driver's License.
- Applicant must be able to successfully pass comprehensive security background screenings so as to service all SK customers who are federally regulated by TSA, DOD, DOJ, DHS, etc.

TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES

- Acts as Emergency Coordinator (may include: hazard assessment, facility evacuation, containment and cleanup activities, notification to emergency response agencies (internal and government), headcount, incident commander until arrival of emergency response teams).
- Assures the proper completion and administration hazardous waste manifests and associated paperwork (i.e. land disposal restriction notices, operating log, waste analysis, and spill reporting)
- Assures the proper management, preparation and shipment of hazardous waste (including packaging, labeling, placarding of vehicles, and transfer and storage procedures)
- Maintains a current Emergency Response and Evacuation Plan
- Conducts compliance training (to include environmental, health and safety) and maintains records of such training. Leads safety and compliance awareness.
- Keeps environmental, health, and safety training records current
- Complies with Company and governmental regulations related to fleet operations
- Maintains facility cleanliness, organization, and appearance

BRANCH ADMINISTRATOR

A Branch Administrator is responsible for providing excellent customer service to internal and external customers, maintaining detailed and accurate company, branch, and customer files.

Responsibilities:

- Create proper shipping and billing documents daily, including manifests.
- Enter data into Safety-Kleen systems.
- Contact customers delinquent in payment and coordinate pick up of payments.
- Respond to customer inquiries and/or complaints.
- Enter sales leads into the Hand-Off Tool on a daily basis.
- Enter time of service Containerized Waste Service profiles into the Waste Approval Wizard software.
- Print and restock time of service in Sales and Service Representative's folders.
- Respond to customer call-ins and direct potential pulls and complaints to appropriate account owner.
- Other related support functions as directed by management.

Requirements:

- High school diploma or equivalent required
- 1+ years of work experience
- Strong computer skills
- Good organizational skills
- Customer service attitude
- Product knowledge
- Attention to detail
- Safety mindset
- Time management skills
- Sense of direction
- Integrity
- Reliable
- Problem solving abilities

TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES

- Manifest and associated paperwork preparation
- Waste Label preparation
- Maintenance of waste tracking (may be electronic or paper)
- May check container labels on hazardous waste containers stored in the facility's permitted storage areas or conduct or verify the facility inspection
- May be designated as an emergency response coordinator or alternate
 - Acts as Emergency Coordinator (may include: hazard assessment, facility evacuation, containment and cleanup activities, notification to emergency response agencies (internal and government), headcount, incident commander until arrival of emergency response teams).

BRANCH MATERIAL HANDLER/WAREHOUSE WORKER

A Material Handler is responsible for completing all assigned warehouse duties in a safe and responsible manner. You will work with all local, state, and federal rules and regulations; and follow all Safety-Kleen policies and procedures.

Responsibilities:

- Unload route truck containerized waste in evening and reconcile waste.
- Reload route trucks with supplies and equipment for next day's runs.
- Stock warehouse with materials after Distribution Center truck arrival.
- Prepare waste loads for shipment to Recycle Center/Distribution Center.
- Daily facility inspection.
- Empty and fill drums of solvent mineral spirits.
- Perform minor repairs on parts washers at warehouse.
- Assign job duties to Material Handlers and assure completion of the duties.
- Supervise third party bulk liquid transfers.
- Inventory count at warehouse.
- Manage inventory order and receiving process.

Requirements:

- Required attendance at on-boarding and regulatory training courses
- High school diploma or GED required
- 3+ years work experience required
- Attention to detail needed
- Ability to follow specific instructions
- Ability to work with minimal supervision at times
- Computer skills
- Forklift driving skills
- Basic math skills
- Pride in position – owns the warehouse and recognizes the importance of this role

TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES

- Prepares hazardous waste for shipment offsite
- Performs housekeeping and routine facility maintenance
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May be designated as an emergency response coordinator or alternate
 - Acts as Emergency Coordinator (may include: hazard assessment, facility evacuation, containment and cleanup activities, notification to emergency response agencies (internal and government), headcount, incident commander until arrival of emergency response teams).

BRANCH SALES AND SERVICE REPRESENTATIVES

A Sales and Service Driver is responsible for safely completing all assigned customer services, meeting customer needs and selling additional services in a defined route while complying with all local, state, and federal rules and regulations, in addition to all Safety-Kleen policies and procedures.

Responsibilities:

- Complete daily scheduled services, deliveries, and pickups in a timely manner.
- Complete all required documentation and labeling.
- Generate / collect leads from customers for new products and services.
- Sell additional products and services into existing accounts.
- Actively prospect for new accounts in assigned route.
- Primary account ownership in assigned route.
- Ensure customer satisfaction at time of service.
- Follow all local, state (provincial) and federal compliance regulations and rules.
- Safely operate vehicles in accordance with U.S. DOT, local, state (provincial) and federal requirements.
- Safely observe all corporate operating guidelines and procedures.
- Observe all company environmental health and safety operating guidelines.

Requirements:

- Required attendance at on-boarding and regulatory training courses
- High school diploma or equivalent required
- Ability to obtain and retain a CDL with HAZMAT endorsement
- Demonstrate a commitment to environmental compliance and safe work practices
- Sales aptitude
- Ability to develop customer loyalty
- Record of good judgment/ decision-making
- Good written and oral communication skills
- Ability to perform physical functions per job requirements
- Ability to work independently while managing time and productivity
- Integrity and reliability
- Attention to detail
- Basic computer literacy and math skills
- Problem solving abilities
- Applicant must be able to successfully pass comprehensive security background screenings so as to service all SK customers who are federally regulated by TSA, DOD, DOJ, DHS, etc.
- Applicants for employment in the U.S. must possess work authorization which does not require sponsorship by the employer for a visa

TYPICAL HAZARDOUS WASTE MANAGEMENT DUTIES

- Services machines containing hazardous waste at customer locations
- Remove, prepare for transportation, and transport hazardous waste to the facility
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May act as Emergency Coordinator (may include: hazard assessment, facility evacuation, containment and cleanup activities, notification to emergency response agencies (internal and government), headcount, incident commander until arrival of emergency response teams).
- May assist in the unloading of hazardous waste and the transfer of spent solvent into the bulk storage tank

BRANCH SALES PERSONNEL (MARKET SALES SPECIALISTS, TERRITORY ACCOUNT MANAGER)

The Outside Sales Representative is expected to meet or exceed sales objectives within an assigned geographic territory through prescribed sales techniques; develop existing customer relationships and cultivate new account opportunities. This position is known internally as a Market Sales Specialist.

Responsibilities:

- Identify profitable new opportunities from leads provided by branches/facilities, current customers, trade publications, state associations, internet/newspaper/journal articles, or cold-calling.
- Develop customer solutions and sell all applicable Safety-Kleen products and services according to the defined sales strategy/pricing tools.
- Prepare sales plans and forecasts; monitor and track sales plan to ensure sales quota is met or exceeded.
- 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 to ensure that customer needs are met and issues are promptly resolved.
- Keep abreast of products, market conditions and competitive activities.
- Maintain current database through the use of CRM tool while providing accurate sales reporting, as required.
- Ensures that all sales actions comply with all regulations and Safety-Kleen corporate policies/processes.
- Daily local travel is required. Limited overnight travel may be required (<15%) for customer visits, vendor visits, training.

Requirements:

- 3+ years of business-to-business (B2B) sales experience, preferably in the industrial, commercial, automotive, or environmental services markets
- Proven ability to prospect, negotiate and close deals
- Bachelor's Degree in Business Management or related field preferred, or equivalent additional experience required
- Prior experience using CRM software tools and reporting
- Strong time management and organizational skills to ensure focus on value-added sales activities
- Strong customer-orientation; prompt issue resolution/follow-through
- Strong computer skills (MS Applications: Word, Excel, PowerPoint)
- Required attendance at on-boarding and regulatory training courses
- Strong communication (written and oral) skills
- Valid driver's license is required

TYPICAL/OPTIONAL HAZARDOUS WASTE MANAGEMENT DUTIES

- Prepares hazardous waste for shipment offsite
- Performs housekeeping and routine facility maintenance
- Prepares paperwork including manifests and land disposal restrictions
- May conduct and document facility inspections
- Cleanup of minor spills and report major spills of hazardous waste
- May be designated as an emergency response coordinator or alternate
 - Acts as Emergency Coordinator (may include: hazard assessment, facility evacuation, containment and cleanup activities, notification to emergency response agencies (internal and government), headcount, incident commander until arrival of emergency response teams).

Exhibit H-3

Training Plan Outlines

TRAINING OUTLINE

RCRA TRAINING AT FACILITY

- I. INTRODUCTION: Major plans to be discussed
 - A. RCRA Contingency Plan and Preparedness and Prevention Plan
 - B. Spill Plan Control and Countermeasures Plan
 - C. Storm Water Pollution Prevention Plan

- II. What we do to keep from sounding the alarm
 - A. Storage and release prevention measures
 - i. Best Management Practices
 - 1. Housekeeping
 - 2. Drum storage drum areas clean and clear
 - 3. Debris picked up
 - 4. Aisle space
 - 5. Container security – lids and secured
 - 6. Waste not stacked over 2 tiers high
 - ii. Preventative maintenance
 - 1. Daily/weekly inspections
 - 2. Keeping containers closed-check container integrity at all times
 - 3. Spill Equipment
 - 4. Fire extinguishers
 - 5. PPE
 - 6. First aid kits
 - 7. Eye wash
 - iii. Security
 - 1. Keep unauthorized / untrained people out of the area
 - 2. Use the facility sign-in log
 - 3. Keep doors closed and locked
 - 4. Enforce the above

- III. What are the procedures if the above practices don't work and a spill occurs
 - A. Activation of the site Contingency Plan
 - i. Emergency response list
 - ii. Emergency coordinators role
 - iii. Response preparation
 - iv. Response actions
 - 1. Emergency shut-off switches
 - 2. Major/minor spills
 - 3. Fires
 - 4. Earthquakes
 - 5. Evacuation procedures
 - v. Notification requirements
 - B. Transportation Contingency Plan
 - i. Emergency response list
 - ii. Response preparation
 - iii. Response actions
 - iv. Notification requirements

- IV. Past Spills
- V. Potential Spills

Exhibit I-1

Closure Cost Estimate

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
1. INVENTORY REMOVAL				
<u>Assumptions</u>		Capacity (gallons)		
- Waste mineral spirits tank(s) is full			12000	
- Tank One			0	
- Tank Two (IF APPLICABLE)			0	
	Total Tank Capacity		12000	
- Return/Fill station is full			162	
- Maximum capacity of drum washers added to waste mineral spirits tank quantity				
- Container storage area(s) full			2400	
- CSA 1			0	
- CSA 2 (IF APPLICABLE)			0	
	Total CSA Capacity		2400	
<u>Subcontractor Costs</u>				
- Transfer tank contents to tankers				
Tank Capacity (total gallons)			12162	
Work Rate to Unload Tank Capacity (hours per gallon)			0.0003	
Total Hours to Unload			3.6	
Labor and equipment rate to unload (PPE Level D) and cost	Labor/equipment	\$175.95	3.6	\$642
- Transport waste mineral spirits to a TSD for treatment/disposal				
Number of tanker trailers required (6,000 gallons max each load)			3	
Cost per mile = \$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number trucks)	Transport = 300 miles each	\$5.64	900	\$5,076
Disposal/treatment cost (per gallon - low cost based on suitability for fuel)	TSD @ \$0.45/gallon	\$0.450	12162	\$5,473
- Transfer drums from CSA(s) to trucks				
Labor/Equipment (PPE Level D)	Labor/equipment per drum	\$3.57	44	\$157
(Number in second column is number of drums determined from total CSA capacity)				
- Transport drums to TSD for Treatment/Disposal				
Total Number of Drums (Number is total of CSA drums and Flam Shed drums)			44	
Total Number of Trucks Required to Transport Drums (84 per truck max)			1	
Cost per mile = \$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number of trucks)	Transport trailer(s) x 300 miles	\$5.64	300	\$1,692
Disposal/treatment cost (per drum - low cost based on suitability for fuel)	TSD @ \$90/drum	\$90	44	\$3,960
Activity 1. Subtotal				\$17,000

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
2. STORAGE TANK DECONTAMINATION				
<u>Assumptions:</u>				
- The tanks, 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				
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection.				
- Tank Interior Square Footage (based on tank volume)				
- Tank 1			Square Footage 781	
- Tank 2 (IF APPLICABLE)			0	
	Total Tank Interior Square Footage		781	
- Tank Farm Containment Square Footage (includes floor and walls)				
			1692.9	
<u>Prime Contractor Costs</u>				
-Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Sample(s) (1 per tank and 1 per containment)				
Work Rate for Sampling (hours 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 (hours 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 (hours 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 (hours per square foot)			0.0405	
Area of Tanks to be decontaminated			781	
Labor and equipment for tank decon (PPE Level C)	Labor/equipment	\$97.23	32	\$3,074
- Decontaminate Tank Containment Area				
Work Rate to Pressure Wash 1 sq ft (hours per square foot)			0.0405	
Total Area of Containment (includes walls and floor)			1693	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	69	\$4,509
<u>Laboratory Subcontractor Costs</u>				
- Analyze rinsate sample(s) from tank(s) and containment area for VOCs, SVOCs and RCRA metals				
	VOCs @ \$189/sample			
	Total per sample cost	\$189	2	\$378
- Analyze soil sample(s) from containment area for VOCs, SVOCs and RCRA metals				
	VOCs @ \$189/sample			
	3 TCLP Metals @ \$110/sample			
	Total per sample cost	\$519	2	\$1,038
Activity 2. Subtotal				\$9,272

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
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 following decontamination				
- Drum washers to remain in place or sent offsite for reuse following decontamination				
- Rinsate sampling required from each drum washer to remain in place or sent offsite for reuse, and from containment				
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection				
- Square footage used for decontamination includes containment, dock and drum washer units				
			Square Footage	
			1000	
<u>Prime Contractor Costs</u>				
-Costs for oversight and engineers inspection included in Closure Certification Activity below				
- Collect Rinsate Samples (1 per drum washer plus containment)			0.5000	
Work Rate for Sampling (hours per sample)			2	
Number of Samples				
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)			0.3050	
Work Rate for Drilling (hours per foot)			2	
Number of Feet (subslab sample depth = 1 foot each)				
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$146.29	0.61	\$89
- Collect Soil Samples			0.5000	
Work Rate for Sampling (per sample)			2	
Number of Samples				
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			0.0405	
Work Rate to Pressure Wash (hours per square foot)			1000	
Area of Return/Fill to be decontaminated				
Labor and equipment for tank decon (PPE Level C)	Labor/equipment	\$97.23	41	\$3,938
<u>Laboratory Subcontractor Costs</u>				
- Analyze 1 rinsate sample per drum washer and containment for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample			
	Total per sample cost	\$189	2	\$378
- Analyze soil sample(s) from containment area for VOCs, SVOCs and RCRA metals	VOCs @ \$189/sample			
	3 TCLP Metals @ \$110/sample			
	Total per sample cost	\$519	2	\$1,038
Activity 3. Subtotal				\$5,627

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
4. DECONTAMINATE CONTAINER STORAGE AREA(S)				
<u>Assumptions:</u>				
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray				
- CSA(s) to remain in-place following closure				
- Decontamination of CSA includes floor, curbing and containment trenches				
- Assumes 1 rinsate and 2 soil samples required per CSA. Actual number of soil samples will be based on engineer's inspection.				
- CSA Containment Square Footage				
- CSA 1			233.92	
- CSA 2 (IF APPLICABLE)			0	
	Total CSA Square Footage		234	
<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 (hours per sample)			0.5000	
Number of Samples			1	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$91.88	0.50	\$46
- Drilling for Soil Samples (2.5 in boring to 1 ft each)				
Work Rate for Drilling (hours per foot)			0.3050	
Number of Feet (subslab sample depth = 1 foot each x number of samples)			2	
Labor and equipment per work hour (PPE Level D)	Labor/equipment	\$146.29	0.61	\$89
- Collect Soil Samples				
Work Rate for Sampling (hours 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 CSA(s)				
Work Rate to Pressure Wash (hours per square foot)			0.0405	
Total Area of Permitted CSA(s) to be decontaminated			234	
Labor and equipment for CSA decon (PPE Level D)	Labor/equipment	\$65.77	9	\$623
<u>Laboratory Subcontractor Costs</u>				
- Analyze rinsate sample(s) from each CSA for VOCs, SVOCs and RCRA metals				
	VOCs @ \$189/sample			
	Total per sample cost	\$658	1	\$658
- Analyze 2 soil sample(s) from each CSA for VOCs, SVOCs and RCRA metals				
	VOCs @ \$189/sample			
	3 TCLP Metals @ \$110/sample			
	Total per sample cost	\$519	2	\$1,038
Activity 4. Subtotal				\$2,546

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
5. 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				
Unit Description	Square Footage	Number Gallons	Number Drums	
STORAGE TANK DECONTAMINATION	781	625	12	
DECONTAMINATE TANK CONTAINMENT	1,693	169	4	
DECONTAMINATE THE RETURN/FILL STATION	1,000	800	15	
DECONTAMINATE CONTAINER STORAGE AREA(S)	234	23	1	
PPE, CONSUMABLES, DEBRIS	NA	NA	5	
- Purchase 55-gallon drums to containerize wash water	Drums @ \$83 each	\$83	37	\$3,378
<u>Subcontractor Costs</u>				
- Transfer drums to trucks				
Labor/Equipment (PPE Level D)	Labor/equipment per drum	\$3.57	37	\$132
- Transport drums to TSD for Treatment/Disposal				
Total Number of Trucks Required to Transport Drums (84 per truck max)			1	
Cost per mile =\$5.64/mile				
Mileage = 300 miles (Number in second column is 300 miles x number trucks)	Transport trailer(s) x 300 miles	\$5.64	300	\$1,692
Disposal/treatment cost (per drum - low cost based on lack of hazardous constituents)	TSD @ \$90/drum	\$90	32	\$2,880
Disposal/treatment cost for PPE drums (assumed haz to landfill)	TSD @\$250/drum	\$250	5	\$1,250
Activity 5. Subtotal				\$9,332

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
6. 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	3	\$12,354
Activity 6. Subtotal				\$12,354

Activity	Category	Hourly Rate or Unit Charge	Hours or Unit Estimate	Subtotal Cost
COST ESTIMATE ACTIVITIES SUMMARY				
1. INVENTORY REMOVAL				\$17,000
2. STORAGE TANK DECONTAMINATION				\$9,272
3. DECONTAMINATE THE RETURN/FILL STATION				\$5,627
4. DECONTAMINATE CONTAINER STORAGE AREA(S)				\$2,546
5. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES				\$9,332
6. CLOSURE CERTIFICATION				\$12,354
TOTAL CLOSURE COST ESTIMATE				\$56,131
TOTAL WITH INFLATION ADDED FROM 2010 TO CURRENT YEAR (updated for inflation from the latest version of CostPro (6.0))				\$76,716
CONTINGENCY				10%
TOTAL CLOSURE COST WITH CONTINGENCY				\$84,387

Notes:

- Estimate assumes that waste management units are at permitted capacity at time of closure, which is the most expensive in the facility's operating life.
- All unit rates obtained from Cost Pro version 6.0 (2009), which is designed to be representative of 3rd party costs 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
 - 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 tank containment, 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
 - Closure Certification Activity includes contractor oversight, PE integrity inspections and reporting/Certification

Exhibit I-2

Closure Schedule

Activity	Calendar Days After Notification and/or Approval										Number of Days Following Completion of Clean Closure		
	0	30	60	90	120	150	180	210	240	270	0	30	60
1. Notification of Intent to Commence Closure													
2. Removal/Disposal of Final Waste Inventory													
3. Notification to Agency of Critical Closure Activities													
4. Storage Tank Decontamination													
5. Return/Fill Station Decontamination													
6. Drum Storage Area Decontamination													
7. Paint Waste Shelter Decontamination													
8. Analytical Results Compilation and Evaluation													
9. Closure Progress Report Preparation and Submittal													
10. Remedial Action Plan/Closure Plan Addendum (if necessary)													
11. Closure Certification *													

Notes:

>>> Indicates that this activity continues until certification of "clean closure."

Indicates an optional activity based on the closure analytical results.

* If no impacts are detected during the decontamination activities, closure certification will be submitted within 60 days of the completion of closure activities.

Closure Plan Table: Tentative Closure Completion Schedule, Safety-Kleen Systems, Inc. Service Center, Fargo, ND

Exhibit I-3

Closure Insurance Certificate



PROTECTION · CHOICES · PEOPLE
MAKE GREEN WORK

VIA FEDERAL EXPRESS TRK #777511574750

July 28, 2022

Mr. Chuck Hyatt, Director Division of Waste Management
North Dakota Department of Environmental Quality
4201 Normandy Street
Bismarck, ND 58503-1324

RE: Financial Assurance Insurance Policy Renewal and Annual Inflation Increase

Safety-Kleen Systems, Inc.

3704 Saratoga Avenue, Bismarck

1537 First Avenue South, Fargo

EPA ID No. NDD980957070

EPA ID No. NDD000716738

Dear Mr. Hyatt:

Please find enclosed two (2) Certificates of Insurance for Closure and/or Post-Closure Care issued by Great American Insurance Company for the Safety-Kleen facilities referenced above. The renewed policy number is [REDACTED] and the policy is effective July 31, 2022 through July 31, 2023. In addition, the closure cost estimates have been increased for annual inflation.

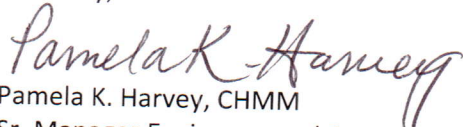
The inflation increase was calculated by multiplying the 2021 cost estimates by the inflation factor 1.041. This inflation factor was calculated by dividing the annual Implicit Price Deflator (IPD) for Gross National Product (GNP) for 2021 (118.349) by the annual IPD for GNP for 2020 (113.636). These IPDs were obtained on March 30, 2022 from Table 1.1.9, Implicit Price Deflators for Gross Domestic Product, published by the U.S. Department of Commerce's Bureau of Economic Analysis, copy enclosed.

Bismarck (Closure): $\$89,239 \times 1.041 = \$92,898$

Fargo (Closure): $\$91,732 \times 1.041 = \$95,493$

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, CHMM
Sr. Manager Environmental Compliance

Enclosures

cc w/enclosures: Jared Torstenson, Sr. Env Compliance Manager Safety-Kleen, via email
Cristine Roob, NDDEQ Hazardous Waste Program, via email
Derek Kannenberg, NDDEQ Hazardous Waste Program, via email

Safety-Kleen Systems, Inc. a Clean Harbors Company
610 131st Place Hammond, IN 46327



Environmental Division

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. 4th Street
Cincinnati, OH 45202

Name and Address of Insured, (herein called the "Insured"):

Clean Harbors, Inc.
42 Longwater Drive
Norwell, MA 02061

FACILITIES COVERED:

Name: Safety-Kleen Systems, Inc.

Address: 3704 Saratoga Avenue
Bismarck, ND 58501

EPA ID Number: NDD 980 957 070

Amount Insured for this site: \$92,898

Face Amount: \$188,391


Policy Number: [REDACTED]

Effective Date: July 31, 2022

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 subsection 5 of North Dakota Administrative Code section 33.1-24-05-77, 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 North Dakota Department of Environmental Quality (DEPARTMENT), the INSURER agrees to furnish to the DEPARTMENT 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 subsection 5 of North Dakota Administrative Code section 33.1-24-05-81 as such rule was constituted on the date shown immediately below.



(Authorized signature for Insurer)

Rick Ringenwald, Divisional Vice President, Executive Underwriter
(Authorized Representative of Great American Insurance Company)

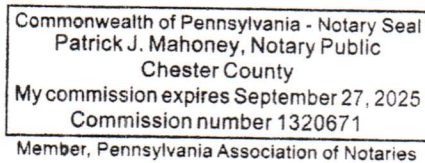


(Signature of witness or notary)

7/19/2022

(Date)

SEAL:





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. 4th Street
Cincinnati, OH 45202

Name and Address of Insured, (herein called the "Insured"):

Clean Harbors, Inc.
42 Longwater Drive
Norwell, MA 02061

FACILITIES COVERED:

Name: Safety-Kleen Systems, Inc.

Address: 1537 First Avenue South
Fargo, ND 58103

EPA ID Number: NDD 000 716 738

Amount Insured for this site: \$95,493

Face Amount: \$188,391

Policy Number: [REDACTED]

Effective Date: July 31, 2022

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 subsection 5 of North Dakota Administrative Code section 33.1-24-05-77, 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.



Environmental Division

397 Eagleview Blvd, Suite 100
Exton, PA 19341
888.828.4320 ph

Whenever requested by the North Dakota Department of Environmental Quality (DEPARTMENT), the INSURER agrees to furnish to the DEPARTMENT 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 subsection 5 of North Dakota Administrative Code section 33.1-24-05-81 as such rule was constituted on the date shown immediately below.

(Authorized signature for Insurer)

Rick Ringenwald, Divisional Vice President, Executive Underwriter
(Authorized Representative of Great American Insurance Company)

(Signature of witness or notary)

7/19/2022

(Date)

SEAL:

Commonwealth of Pennsylvania - Notary Seal
Patrick J. Mahoney, Notary Public
Chester County
My commission expires September 27, 2025
Commission number 1320671
Member, Pennsylvania Association of Notaries

Table 1.1.9. Implicit Price Deflators for Gross Domestic Product

[Index numbers, 2012=100]

Last Revised on: March 30, 2022 - Next Release Date April 28, 2022

Line	2020	2021
1 Gross domestic product	113.648	118.370
2 Personal consumption expenditures	111.225	115.536
3 Goods	94.160	98.874
4 Durable goods	85.784	91.064
5 Nondurable goods	98.602	102.852
6 Services	120.302	124.243
7 Gross private domestic investment	109.698	113.185
8 Fixed investment	111.052	115.386
9 Nonresidential	104.813	106.457
10 Structures	120.852	127.617
11 Equipment	97.388	97.712
12 Intellectual property products	104.574	105.600
13 Residential	138.541	153.466
14 Change in private inventories	---	---
15 Net exports of goods and services	---	---
16 Exports	96.188	107.400
17 Goods	88.162	100.685
18 Services	114.517	121.414
19 Imports	88.075	94.560
20 Goods	83.963	90.473
21 Services	109.820	115.613
22 Government consumption expenditures and gross investment	114.861	120.034
23 Federal	112.018	116.025
24 National defense	110.039	114.086
25 Nondefense	115.108	119.063
26 State and local	116.725	122.683
Addendum:		
27 Gross national product	113.636	118.349

Exhibit I-4

Hazardous Waste Facility Certificate of Liability Insurance



Clean Harbors Environmental Services, Inc.
610 131st Place
Hammond, IN 46327
219-746-5050
800.282.0058
www.cleanharbors.com

VIA FEDERAL EXPRESS TRK #770341301031

October 28, 2022

Mr. Chuck Hyatt, Director
Division of Waste Management
North Dakota Department of Environmental Quality
4201 Normandy Street
Bismarck, ND 58503-1324

RE: Hazardous Waste Facility Liability Insurance Renewal
Sawyer Disposal Services, LLC – EPA ID No. ND0000351270
Safety-Kleen Systems, Inc. – EPA ID Nos. NDD980957070 and NDD000716738

Dear Mr. Hyatt:

Please find enclosed two (2) original signed Hazardous Waste Facility Certificates of Liability Insurance, issued by Great American Insurance Company. One certificate is for the Clean Harbors Sawyer Disposal Services, LLC facility and the second certificate covers the Safety-Kleen Systems, Inc. facilities located in Bismarck and Fargo. The policy number is [REDACTED] and the policy period is November 1, 2022 – November 1, 2023.

A signed duplicate original of the policy will be made available in 30-60 days and submitted upon a request from the North Dakota Division of Waste Management.

If you have any questions or concerns regarding this submittal please feel free to contact me at harvey.pamela@cleanharbors.com or at 219-746-5050.

Sincerely,

A handwritten signature in black ink that reads "Pamela K. Harvey". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Pamela K. Harvey, CHMM
Sr. Manager Environmental Compliance

Enclosures

LARGE VOLUME INDUSTRIAL 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 North Dakota Administrative Code section 33.1-20-14-06. The coverage applies at EPA ID# ND0000351270, Sawyer Disposal Services, LLC, 12400 247th Avenue SE, Sawyer, ND 58781 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 [REDACTED] issued on November 1, 2022. The effective date of said policy is November 1, 2022.
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 the right of reimbursement from 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 subsection 6 of North Dakota Administrative Code section 33.1-20-14-06.
 - (c) Whenever requested by the North Dakota State Department of Environmental Quality (DEPARTMENT), the insurer agrees to furnish to the DEPARTMENT 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 waste facility, will be effective only upon written notice, and only after the expiration of sixty days after a copy of such written notice is received by the DEPARTMENT.
 - (e) Any other termination of the insurance will be effective only upon written notice, and only after the expiration of thirty days after a copy of such written notice is received by the DEPARTMENT, as evidenced by the return receipt.

I hereby certify that the wording of this instrument is identical to the wording specified in subsection 4 of North Dakota Administrative Code section 33.1-20-14-07 as such regulation was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance in the state of North Dakota, or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

Heather Boyd
(Signature of Authorized Representative of Insurer)

Date: 11/1/2022

Heather Boyd, Assistant 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 North Dakota Administrative Code section 33.1-24-05-79. The coverage applies at EPA ID# SEE ATTACHED LIST for sudden accidental occurrences. The limits of liability are \$1,000,000 each occurrence and \$2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number [REDACTED] issued on November 1, 2022. The effective date of said policy is November 1, 2022.
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 the 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 subsection 6 of North Dakota Administrative Code section 33.1-24-05-79.
 - (c) When requested by the North Dakota Department of Environmental Quality (DEPARTMENT), the insurer agrees to furnish to the DEPARTMENT 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 days after a copy of such written notice is received by the DEPARTMENT.
 - (e) Any other termination of the insurance will be effective only upon written notice, and only after the expiration of thirty days after a copy of such written notice is received by the DEPARTMENT, as evidenced by the return receipt.

I hereby certify that the wording of this instrument is identical to the wording specified in subsection 7 of North Dakota Administrative Code section 33.1-24-05-81, as such regulation was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance in the state of North Dakota, or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

Heather Boyd
(Signature of Authorized Representative of Insurer)

Date: 11/1/2022

Heather Boyd, Assistant Vice President, Environmental Division

Authorized Representative of: Great American Insurance Company

31 St. James Ave., Suite 830
Boston, MA 02116

SAFETY-KLEEN SYSTEMS, INC. LOCATIONS

STATE OF NORTH DAKOTA

**3704 Saratoga Ave., Units A-E &
3718 Saratoga Ave., Unit H
Bismarck, ND 58501**

NDD980957070

**1537 First Avenue, South
Fargo, ND 58103**

NDD000716738

Exhibit N-1

Heavy Liquid Determination



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

- ***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, 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

- 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 3rd party ISO 9001 conforming lab (see attached ISO 9001 Certificate of Conformance)
- Vapor pressure of samples determined via *ASTM D2879 - Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope*

Lab Results Summary (See attached lab reports)

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
AVERAGE	0.11

Conclusion

All three samples analyzed had vapor pressures ≤ 0.3 kilopascals (kPa). As such, waste parts washer solvent stored in bulk storage tanks meets the RCRA definition of '*In heavy liquid service*'.



APPENDIX

ABS Quality Evaluations

Certificate Of Conformance

This is to certify that the Quality Management System of:

Alcor PetroLab

**1300 Corporate Dr. E
Arlington, TX 76006
U.S.A.**

(WITH ADDITIONAL FACILITIES LISTED ON ATTACHED ANNEX)

has been assessed by ABS Quality Evaluations, Inc. and found to be in conformance with the requirements set forth by:

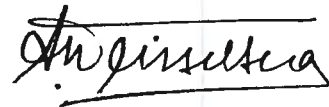
ISO 9001:2008

The Quality Management System is applicable to:

LABORATORY TESTING SERVICES FOR PETROLEUM AND RELATED PRODUCTS

This certificate may be found on the ABS QE Website (www.abs-qe.com). For certificates issued in the People's Republic of China information may also be verified on the CNCA website (www.cnca.gov.cn).

Certificate No: 43513
Original Certification Date: 13 August 2009
Effective Date: 04 August 2015
Expiration Date: 12 August 2018
Revision Date: 04 August 2015



Alex Weisselberg, President



Validity of this certificate is based on the periodic audits of the management system defined by the above scope and is contingent upon prompt, written notification to ABS Quality Evaluations, Inc. of significant changes to the management system or components thereof.

ABS Quality Evaluations, Inc. 16855 Northchase Drive, Houston, TX 77060, U.S.A.
Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.

ABS Quality Evaluations

ISO 9001:2008

Certificate Of Conformance

ANNEX

Certificate No: 43513

Alcor PetroLab

At Below Facilities:

Facility: 20 Laboratory Road
Floresville, TX 78114
U.S.A.

Activity: Independent testing of petroleum byproducts



Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.



Phoenix
a Zeiva company

Quality testing since 1927

Phoenix Chemical Laboratory

CERTIFICATE OF ANALYSIS

Safety-Kleen Systems Inc.
1502 East Villa Street
Elgin, IL 60120

rick.haskins@safety-kleen.com

Report Date: 12/15/2017
Laboratory Number: P171211A
Sample Type: Spent Solvent
Sample ID: Spent PW Solvent Sample 1

Water Content as Received: 0.02 wt% * ASTM E203
* De-watering step not required

Vapor Pressure by Isoteniscope - ASTM D2879

<u>Temperature (°C)</u>	<u>Temperature (°F)</u>	<u>Vapor Pressure (torr)</u>	<u>Vapor Pressure (psia)</u>
0	32	0.26	0.005
20	68	0.95	0.018
25	77	1.3	0.025
50	122	4.9	0.094
75	167	15	0.297
100	212	42	0.80
125	257	99	1.9
150	302	213	4.1
175	347	421	8.1
199	391	760	14.7

Report Prepared by,

Joe Burock, Lab Technician

Report Reviewed by,

Stuart Ramsdale, Lab Manager



Phoenix
a Zelva company

Quality testing since 1927

Chemical Laboratory

CERTIFICATE OF ANALYSIS

Safety-Kleen Systems Inc.
1502 East Villa Street
Elgin, IL 60120

rick.haskins@safety-kleen.com

Report Date: 12/15/2017
Laboratory Number: P171206A_rev1
Sample Type: Spent Solvent
Sample ID: Spent PW Solvent Sample 3

Water Content as Received: 0.6 wt% * ASTM E203
* De-watering step required

Water Content after de-watering: 0.02 wt% ASTM E203

Vapor Pressure by Isoteniscope - ASTM D2879

<u>Temperature (°C)</u>	<u>Temperature (°F)</u>	<u>Vapor Pressure (torr)</u>	<u>Vapor Pressure (psia)</u>
0	32	0.18	0.0035
20	68	0.70	0.014
25	77	0.95	0.018
50	122	3.8	0.074
75	167	13	0.243
100	212	35	0.68
125	257	87	1.7
150	302	193	3.7
175	347	392	7.6
201	394	760	14.7

Report Prepared by,

Joe Burock, Lab Technician

Report Reviewed by,

Stuart Ramsdale, Lab Manager



Phoenix
a Zelva company

Quality testing since 1927

Chemical Laboratory

CERTIFICATE OF ANALYSIS

Safety-Kleen Systems Inc.
1502 East Villa Street
Elgin, IL 60120

rick.haskins@safety-kleen.com

Report Date: 12/15/2017
Laboratory Number: L171205A_rev1
Sample Type: Solvent
Sample ID: PW Solvent
Tank 117 Core

Water Content as received: 0.01 wt% * ASTM E203
*De-watering step not required

Vapor Pressure by Isoteniscope - ASTM D2879

<u>Temperature (°C)</u>	<u>Temperature (°F)</u>	<u>Vapor Pressure (torr)</u>	<u>Vapor Pressure (psia)</u>
0	32	0.19	0.0037
20	68	0.73	0.014
25	77	0.99	0.019
50	122	4.0	0.077
75	167	13	0.254
100	212	37	0.71
125	257	91	1.8
150	302	201	3.9
175	347	408	7.9
200	391	760	14.7

Report Prepared by,

Joe Burock, Lab Technician

Report Reviewed by,

Stuart Ramsdale, Lab Manager