OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. **Reason for Submittal** (Select only one)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A Form

2. **Site EPA ID Number**

R	I	D	0	8	4	8	0	2	8	4	2

3. **Site Name**

Safety-Kleen Systems, Inc.

4. **Site Location Address**

Street Address: 167 Mill Street		
City, Town, or Village: Cranston		County: Providence
State: RI	Country: USA	Zip Code: 02905

5. **Site Mailing Address** ☑ Same as Location Address

Street Address		
City, Town, or Village		
State	Country	Zip Code

6. **Site Land Type**

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. **North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)**

A. (Primary) 562112	C.
B.	D.

8. Site Contact Information

☑ Same as Location Address

First Name James	MI R	Last Name Laubsted
Title Sr. Environmental Compliance Mgr.		
Street Address		
City, Town, or Village		
State	Country	Zip Code
Email laubstedj@cleanharbors.com		
Phone 630-854-2549	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

☐ Same as Location Address

Full Name Safety-Kleen Systems, Inc.	Date Became Owner (mm/dd/yyyy) 12/13/2007
Owner Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address 2600 N CENTRAL EXPRESSWAY	
City, Town, or Village RICHARDSON	
State TX / Country USA	Zip Code 75080
Email	
Phone 972-265-2000 / Ext	Fax
Comments	

B. Name of Site's Legal Operator

☐ Same as Location Address

Full Name Safety-Kleen Systems, Inc.	Date Became Operator (mm/dd/yyyy) 12/13/2007
Operator Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address 2600 N CENTRAL EXPRESSWAY	
City, Town, or Village RICHARDSON	
State TX / Country USA	Zip Code 75080
Email	
Phone 972-265-2000 / 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

☑ Y ☐ N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c	
☑	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste; 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.
☐	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.
☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
☐ Y ☑ 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. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.*	
☑ Y ☐ N	3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities.	
☑ Y ☐ N	4. Receives Hazardous Waste from Off-site	
☐ Y ☑ N	5 Recycler of Hazardous Waste	
☐	a. Recycler who stores prior to recycling	
☐	b. Recycler who does not store prior to recycling	
☐ Y ☑ N	6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.	
☐	a. Small Quantity On-site Burner Exemption	
☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D003	D004	D005	D006	D007
D008	D009	D010	D011	D012	D013	D014
D015	D016	D017	D018	D019	D020	D021
D022	D023	D024	D025	D026	D027	D028
D029	D030	D031	D032	D033	D034	D035

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.

R001	R002	R003	R004	R005	R006	R007
R010	R013					

11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)

A. Other Waste Activities

☑ Y ☐ N	1. Transporter of Hazardous Waste—If "Yes", mark all that apply.
☑	a. Transporter
☑	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Underground Injection Control
☐ Y ☑ N	3. United States Importer of Hazardous Waste
☐ Y ☑ N	4. Recognized Trader—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter
☐ Y ☑ N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter

B. Universal Waste Activities

☑ Y ☐ 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.
☑	a. Batteries
☐	b. Pesticides
☑	c. Mercury containing equipment
☑	d. Lamps
☑	e. Other (specify) _____
☐	f. Other (specify) _____
☐	g. Other (specify) _____
☑ Y ☐ N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

☑ Y ☐ N	1. Used Oil Transporter—If "Yes", mark all that apply.
☑	a. Transporter
☑	b. Transfer Facility (at your site)
☑ Y ☐ N	2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply.
☑	a. Processor
☐	b. Re-refiner
☐ Y ☑ N	3. Off-Specification Used Oil Burner
☑ Y ☐ N	4. Used Oil Fuel Marketer—If "Yes", mark all that apply.
☑	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☑	b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Pharmaceutical Activities

☐ Y ☑ N	1. Operating under 40 CFR 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.
☐	a. Healthcare Facility
☐	b. Reverse Distributor
☐ Y ☑ N	2. Withdrawing from operating under 40 CFR 266 Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is no longer an LQG or SQG.

12. **Eligible Academic Entities with Laboratories**—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR 262 Subpart K

☐ Y ☑ N	A. Opting into or currently operating under 40 CFR 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.
☐	1. College or University
☐	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
☐	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university
☐ Y ☑ N	B. Withdrawing from 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories.

13. **Episodic Generation**

☐ Y ☑ 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**

☐ Y ☑ 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 VSQGs hazardous waste.

15. **Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)**

☐ Y ☑ N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility
	A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility
	B. Expected closure date: _____ mm/dd/yyyy
	C. Requesting new closure date: _____ mm/dd/yyyy
	D. Date closed : _____ mm/dd/yyyy ☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8) ☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☑ N	Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.

17. Electronic Manifest Broker

☐ Y ☑ N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

18. Comments (include item number for each comment)

11A. (continued) D036, D037, D038, D039, D040, D041, D042, D043, F001, F002, F003, F004, F005, F006, F019, F037, F038, K048, K049, K050, K051, K052, P022, U002, U003, U019, U031, U037, U041, U044, U045, U052, U055, U056, U057, U069, U070, U072, U078, U079, U080, U083, U088, U092, U102, U107, U108, U110, U112, U113, U115, U117, U121, U122, U124, U140, U151, U154, U159, U161, U162, U165, U169, U171, U188, U196, U210, U211, U213, U220, U226, U227, U228, U238, U239, U359

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	Date (mm/dd/yyyy)
	6/18/2020
Printed Name (First, Middle Initial Last) James C. Childress	Title Vice-President Environmental Compliance
Email childress.james@cleanharbors.com	

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	James	MI	R	Last Name	Laubsted
Title	Sr. Environmental Compliance Mgr.				
Email	laubstedj@cleanharbors.com				
Phone	630-854-2549	Ext		Fax	

2. Facility Permit Contact Mailing Address

Street Address	167 Mill Street	
City, Town, or Village	Cranston	
State RI	Country USA	Zip Code 02910

3. Facility Existence Date (mm/dd/yyyy)

12/13/2007

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
R	RID084802842	RCRA Part B permit
N	RIR500000	Multi-Sector General NPDES permit
E	NA	Air Operating Permit

5. Nature of Business

Safety-Kleen Systems, Inc. (Safety-Kleen) maintains and operates a commercial waste recycling/treatment, storage and transfer facility at 167 Mill Street, Cranston, Rhode Island. Safety-Kleen operations focus on the collection, recovery, sorting and processing of waste materials for beneficial reuse. Safety-Kleen accepts, stores, and processes a variety of hazardous and non-hazardous wastes including ignitable and halogenated solvents, used oil, spent filters, metal bearing wastes, certain corrosive and reactive wastes, universal wastes, waste paint and used electronic equipment. Safety-Kleen's permit also includes the management of regulated wastes such as waste oil, used oil filters, used aerosol cans, fluorescent/light bulbs, batteries, waste paint, universal Waste and other wastes.

500' RADIUS LIST 167 MILL ST

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
4-2527-0 67 ROBERT CIRCLE	SHELDON I BELMAIN CAROLYN H BELMAIN 67 ROBERT CIR CRANSTON, RI 02905
4-2509-0 42 ROBERT CIRCLE	PAUL D BREITENBECHER DEBRA A BEBRIN 490 BLUE HILL AVE MILTON, MA 02186
4-1102-0 180 MILL STREET	CIBA CORPORATION ATTN: TAX DEPARTMENT 100 PARK AVENUE FLORHAM PARK, NJ 07932
4-2682-0 0 MILL STREET	CIBA CORPORATION ATTN: TAX DEPARTMENT 100 PARK AVENUE FLORHAM PARK, NJ 07932
4-2630-0 0 MILL STREET	CIBA CORPORATION ATTN: TAX DEPARTMENT 100 PARK AVENUE FLORHAM PARK, NJ 07932
4-2563-0 0 MILL STREET	CIBA CORPORATION ATTN: TAX DEPARTMENT 100 PARK AVENUE FLORHAM PARK, NJ 07932
4-1108-0 0 MILL STREET	CIBA CORPORATION ATTN: TAX DEPARTMENT 100 PARK AVENUE FLORHAM PARK, NJ 07932

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
4-2523-0 77 ROBERT CIRCLE	ROBERT T DONNELLY GAIL P DONNELLY 77 ROBERT CIRCLE CRANSTON, RI 02905
4-1103-0 56 ROBERT CIRCLE	PATRICK RHAULT 56 ROBERT CIRCLE CRANSTON, RI 02905
4-102-0 76 ROBERT CIRCLE	PEDRO FIGUEROA VICTOR FIGUEROA 76 ROBERT CIRCLE CRANSTON, RI 02905
4-1107-0 165 MILL STREET	G MG MANAGEMENT CORP P. 0. BOX 6126 WARWICK, RI 02887
4-1871-0 0 PARK VIEW BOULEVARD	JOSEPH J GILMARTIN 15 TODD ST WARWICK, RI 02888-4236
4-1868-0 0 PARK VIEW BOULEVARD	JOSEPH J GILMARTIN 15 TODD ST WARWICK, RI 02888-4236
4-1870-0 0 PARK VIEW BOULEVARD	JOSEPH J GILMARTIN 15 TODD ST WARWICK, RI 02888-4236
4-1869-0 0 PARK VIEW BOULEVARD	JOSEPH J GILMARTIN 15 TODD ST WARWICK, RI 02888-4236

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
4-101-0 80 ROBERT CIRCLE	YINETH GUTIERREZ ADRIANO PIMENTEL 80 ROBERT CIRCLE CRANSTON, RI 02905-1023
4-2508-0 50 ROBERT CIRCLE	KATHRYN MAZZARELLI 50 ROBERT CIRCLE CRANSTON, RI 02905
4-99-0 90 ROBERT CIRCLE	LAVELAY KIZEKAI 90 ROBERT CIRCLE CRANSTON, RI 02905
4-2524-0 73 ROBERT CIRCLE	LAMP JOHN S & DEBRA M LAMP (TEN BY ENT) 73 ROBERT CIRCLE CRANSTON, RI 02905
4-2528-0 51 ROBERT CIRCLE	KATHLEEN C MULLEN 51 ROBERT CIRCLE CRANSTON, RI 02905
4-1096-0 60 ROBERT CIRCLE	TIMOTHY F MARTIN ELIZABETH SAPIENZA-MARTIN 60 ROBERT CIRCLE CRANSTON, RI 02905
4-2696-0 0 WAVERLY STREET	OPTION ONE REALTY LLC 1145 WAMPANOAG TR #203 EAST PROVIDENCE, RI 02915-1019
4-2529-0 45 ROBERT CIRCLE	WAYNE DECOSTA 45 ROBERT CIRCLE CRANSTON, RI 02905

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
4-2631-0 0 MILL STREET	PROVIDENCE & WORCESTER RAILROAD COMPANY - P PO BOX 1188 75 HAMMOND ST WORCESTER, MA 01601
4-103-0 70 ROBERT CIRCLE	GUSTAVO SANCHEZ PENA EVELIN 70 ROBERT CIRCLE CRANSTON, RI 02905
4-100-0 84 ROBERT CIRCLE	REYES FERNANDO A & REYES CHRISTINA M TE 84 ROBERT CIRCLE CRANSTON, RI 02905
4-2706-0 167 MILL STREET	SAFETY KLEEN SYSTEMS INC 167 MILL STREET CRANSTON, RI 02905
4-104-0 66 ROBERT CIRCLE	JONATHAN E WILLIAMS 66 ROBERT CIRCLE CRANSTON, RI 02905-1023
4-1748-0 0 WAVERLY STREET	MILL DEVELOPMENT COMPANY CRANSTON, CITY OF ATTN N J BALOTOW 111 WAYLAND AVE PROVIDENCE, RI 02906
4-1799-0 0 PARK VIEW BOULEVARD	MILL DEVELOPMENT COMPANY CRANSTON, CITY OF ATTN N J BALOTOW 111 WAYLAND AVE PROVIDENCE, RI 02906
4-1816-0 0 PARK VIEW BOULEVARD	MILL DEVELOPMENT COMPANY CRANSTON, CITY OF 111 WAYLAND AVE PROVIDENCE, RI 02906

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
4-1847-0 0 PARK VIEW BOULEVARD	MILL DEVELOPMENT COMPANY CRANSTON CITY OF ATTN N J BALOTOW 111 WAYLAND AVE PROVIDENCE, RI 02906
4-2554-0 0 RIVERBANK ROAD	MILL DEVELOPMENT COMPANY CRANSTON CITY OF 111 WAYLAND AVE PROVIDENCE, RI 02906

WARWICK OWNERS

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
289-560 MILTON RD	ALLAN GUILBAULT 35 MILTON RD WARWICK, RI 02888
289-224 3 BYRON BLVD	SHARON GINAITT 3 BURNETT ROAD WARWICK, RI 02889
289-222 23 BYRON BLVD	BRADFORD KNIGHT 23 BYRON BLVD WARWICK,RI 02888
289-51 5 ENNIS PL	BRIAN COCKSHUTT 5 ENNIS PL WARWICK,RI 02888
289-54 RATHBUN AVE	CITY OF WARWICK 3275 POST RD WARWICK, RI 02886
289-55 RATHBUN AVE	CITY OF WARWICK 3275 POST RD WARWICK, RI 02886
289-320 31 MILTON RD	DONALD GROHMAN 31 MILTON RD WARWICK, RI 02888
289-178 14 TENNYSON RD	DONNA GOODWIN 14 TENNYSON RD WARWICK, RI 02888
289-321 23 MILTON RD	DOUGLAS PARISEAU 2 CATE'S LANDING WARWICK, RI 02888
289-422 IRVING RD	HERFF JONES INC 150 HERFF JONES WAY WARWICK, RI 02888

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
289-474 IRVING RD	HERFF JONES INC 150 HERFF JONES WAY WARWICK, RI 02888
290-396 180 HERFF JONES WAY	HERFF JONES INC 150 HERFF JONES WAY WARWICK, RI 02888
289-269 26 BYRON BLVD	JAYMIE HAZARD 26 BYRON BLVD WARWICK, RI 02888
289-223 15 BYRON BLVD	JOHN BRENNAN 15 BYRON BLVD WARWICK, RI 02888
289-269 20 BYRON BLVD	JON TRAVERSIE 20 BYRON BLVD WARWICK, RI 02888
289-561 9 BYRON BLVD	JORGE FRIAS 9 BYRON BLVD WARWICK, RI 02888
289-565 8 BYRON BLVD	JULIE PETERS 8 BYRON BLVD WARWICK, RI 02888
289-323 15 MILTON RD	JEFFREY LESSARD 145 ESSEX RD #29C WARWICK, RI 02888
289-566 2 BYRON BLVD	NICOLE RUSSELL 2 BYRON BLVD WARWICK, RI 02888
289-421 IRVING RD	RICHARD NELSON 32 MILTON RD WARWICK, RI 02888
289-371 32 MILTON RD	RICHARD NELSON 32 MILTON RD WARWICK, RI 02888

PROPERTY ID LOCATION	OWNER PROPERTY ADDRESS
289-564 14 BYRON BLVD	RICHARD WHITE 14 BYRON BLVD WARWICK, RI 02888
289-322 19 MILTON RD	ROBERT LAPORTE 19 MILTON RD WARWICK, RI 02888
289-56 3 TENNYSON RD	THERESA PARTON 3 TENNYSON RD WARWICK, RI 02888
289-179 6 TENNYSON RD	WILLIAM MORRIS 6 TENNYSON RD WARWICK, RI 02888

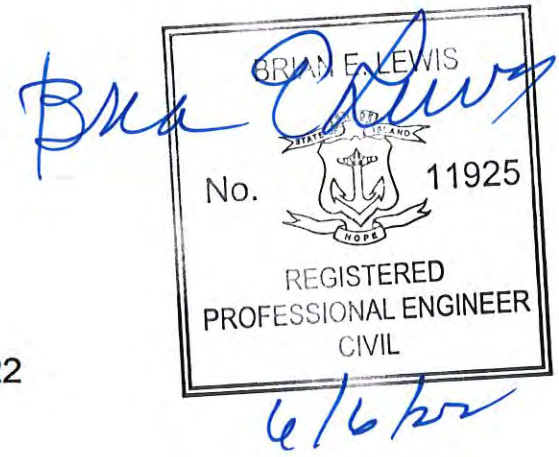
Safety-Kleen Systems, Inc.
Cranston, RI
RID 084802842

SECTION 15.0

FACILITY SITE ENGINEERING DRAWINGS

RCRA PART B PERMIT

VOLUME 1



May 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 15.0 FACILITY SITE ENGINEERING DRAWINGS

Table of Contents

Drawings:

Plans:

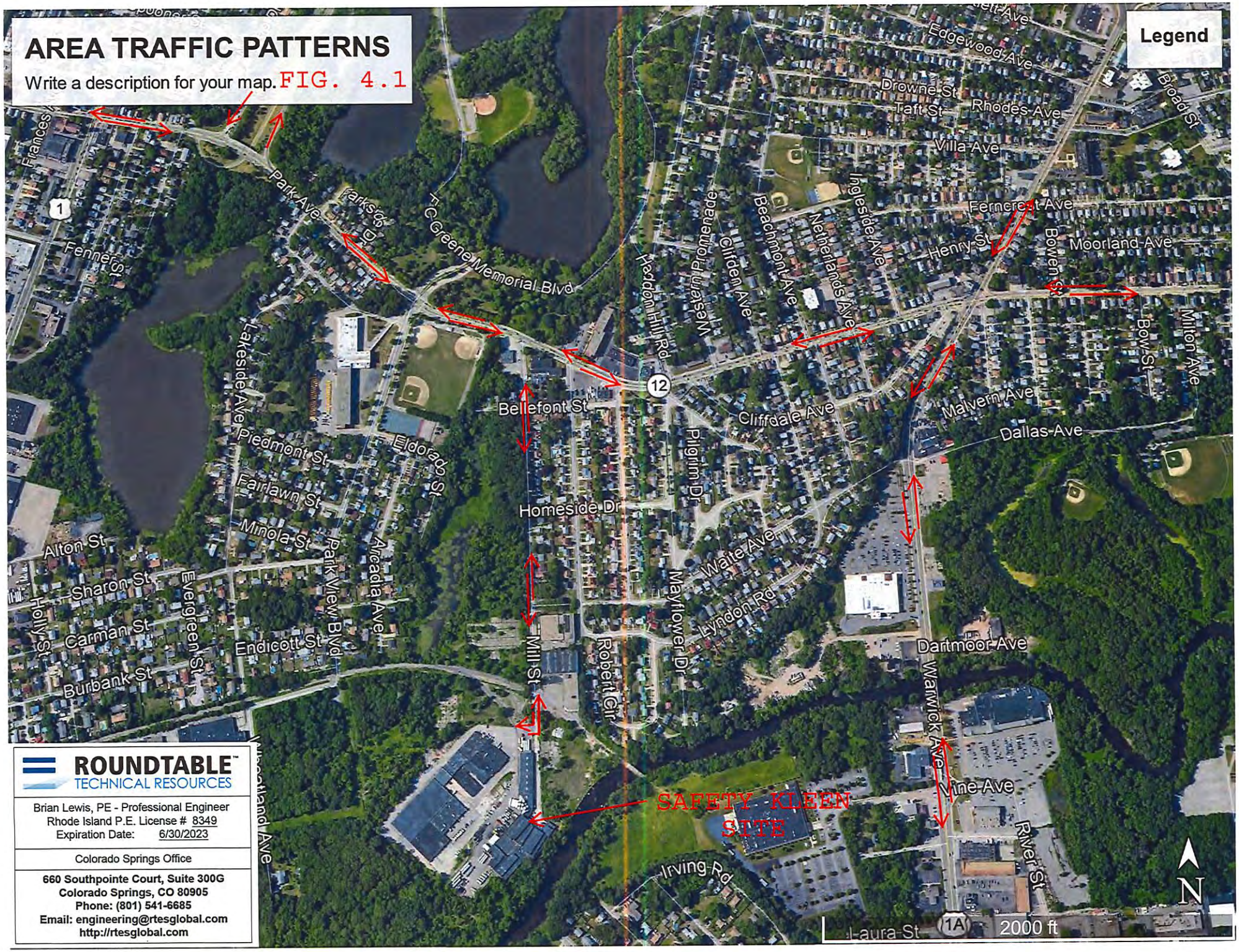
Safety-Kleen Systems, Inc.
Cranston, RI
RID 084802842

Plan 11, Rev. B
Plan 12, Rev. B
Plan 13, Rev. B
Plan 14, Rev. D
Plan 15, Rev. C
Plan GW-1, Rev. F

Figures:
Figure 1, Rev. B
Figure 2, Rev. B
Figure 2.5, Rev. B
Figure 3, Rev. B
Figure 4.1
Figure 9.5, Rev. B
Figure 9.6, Rev. B
Figure 14.1, Rev F

AREA TRAFFIC PATTERNS

Write a description for your map. FIG. 4.1



ROUNDTABLE™ TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

PROFESSIONAL ENGINEER CERTIFICATION

FACILITY NAME: **Safety-Kleen Systems, Inc.**

ADDRESS: **167 Mill Street, Cranston Rhode Island**

U.S. EPA ID NO.: **RID 084802842**

PERMIT APPLICATION DATE: **June 3, 2022**

I, Brian E. Lewis, hereby certify that I am a registered Professional Engineer in the state of Rhode Island, and that the documents submitted in the June 3, 2022 Part B Application identified as **SECTION 15.0 FACILITY SITE ENGINEERING DRAWINGS** dated May, 2021 are accurate and that all permitted waste tank systems, and container storage areas have been constructed, and are operated in compliance with applicable regulations.

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision of a professional engineer in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my review of the plans and 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.

Signature of Registered P.E.

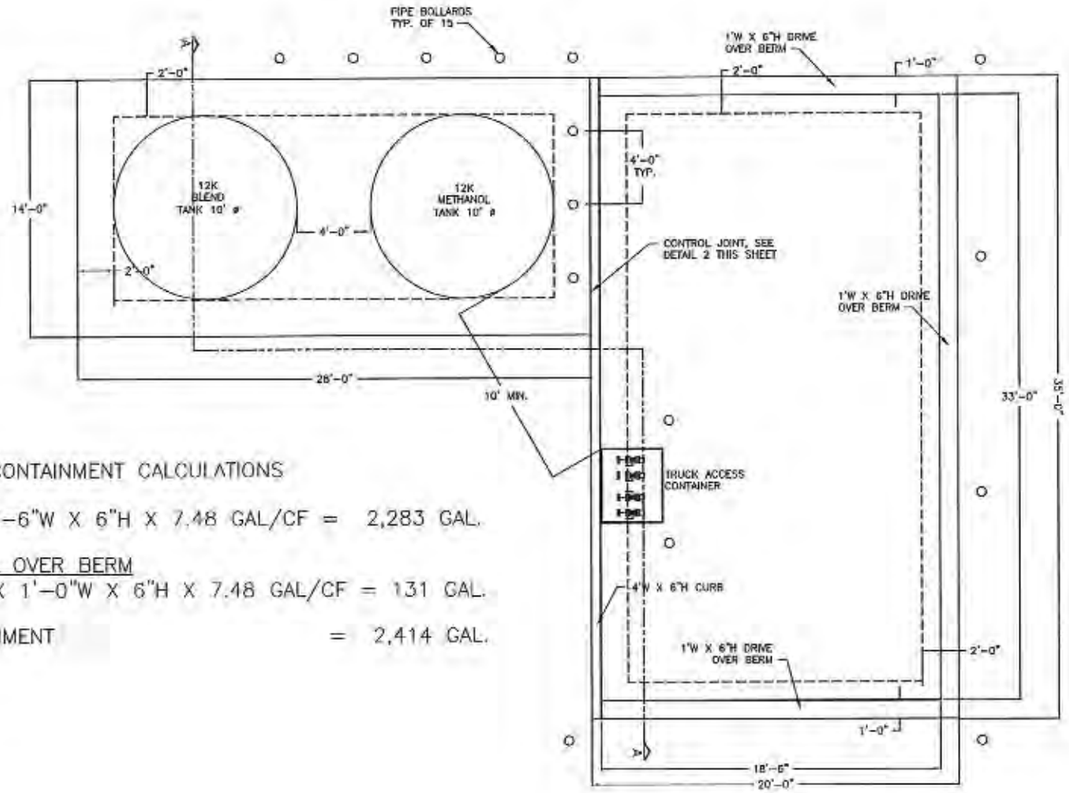
Brian E. Lewis – RI PE Lic. # 8349

Name of Registered P.E. and
Rhode Island PE Registration No.

June 3, 2022

Date

BRIAN E. LEWIS
(P.E. Seal)
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

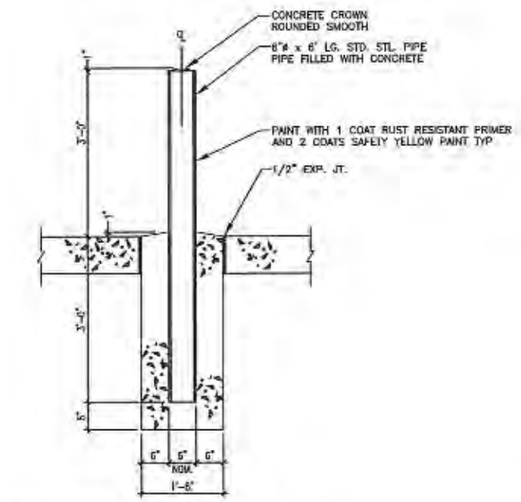


TANKER PAD CONTAINMENT CALCULATIONS

33'–0"L X 18'–6"W X 6"H X 7.48 GAL/CF = 2,283 GAL.

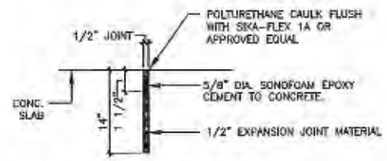
AREA OF ROLL OVER BERM
(.5) 70'–0"L X 1'–0"W X 6"H X 7.48 GAL/CF = 131 GAL.

TOTAL CONTAINMENT = 2,414 GAL.



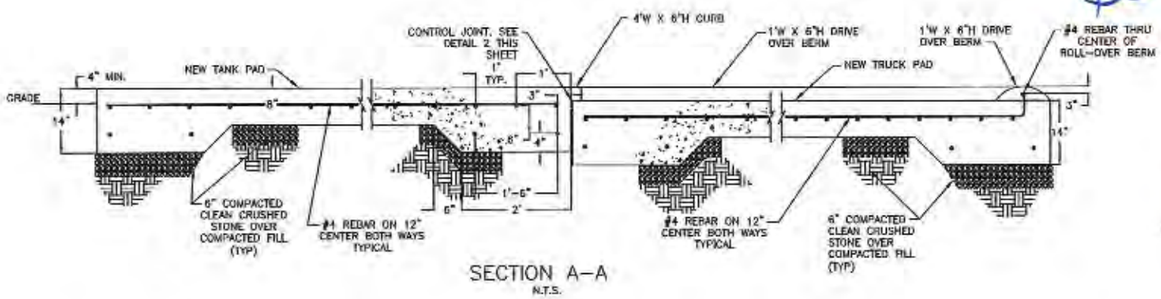
1/599 PIPE BOLLARD DETAIL

SCALE: NONE



2/599 CONTROL JOINT DETAIL

SCALE: NONE



SECTION A–A

N.T.S.

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

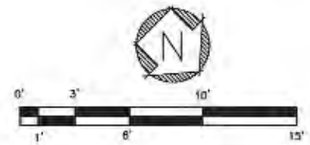
ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					
F	ADD CALCS	JEK	DDP	DDP	030915
E	REVISE LAYOUT/ADD BOLLARDS	JEK	DDP	DDP	101310
D	REVISE PAD LAYOUT	JEK	DDP	DDP	101210
C	REVISE PAD LENGTH	JEK	DDP	DDP	090810
B	REVISE NOTES/DIMENSIONS	JEK	DDP	DDP	083010
A	REVISED LAYOUT	JEK	DDP	DDP	061909
0	ISSUED FOR REVIEW	JEK	DDP	DDP	051909



GENERAL NOTES

1. MINIMUM SOIL BEARING CAPACITY TO BE 3000 PSF. SOIL SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY AND UNIFORM OVER THE FOOTPRINT.

2. ALL CONCRETE AREAS TO BE COVERED WITH BURLAP AND KEPT CONTINUOUSLY MOIST FOR A MINIMUM OF THREE DAYS AFTER PLACEMENT AND FINISHING.

3. ALL CONCRETE WORK SHALL HAVE 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS AND 3% TO 5% AIR ENTRAINING ADMIXTURE. CONTRACTOR TO OBTAIN AND SUPPLY TESTING RESULTS OF CONCRETE CYLINDER TESTS.

4. ALL REBAR TO BE GRADE 60.

5. ALL NEW CONCRETE SURFACES TO BE SEALED WITH CHEMTEC SEALER PER S-K SPECS.

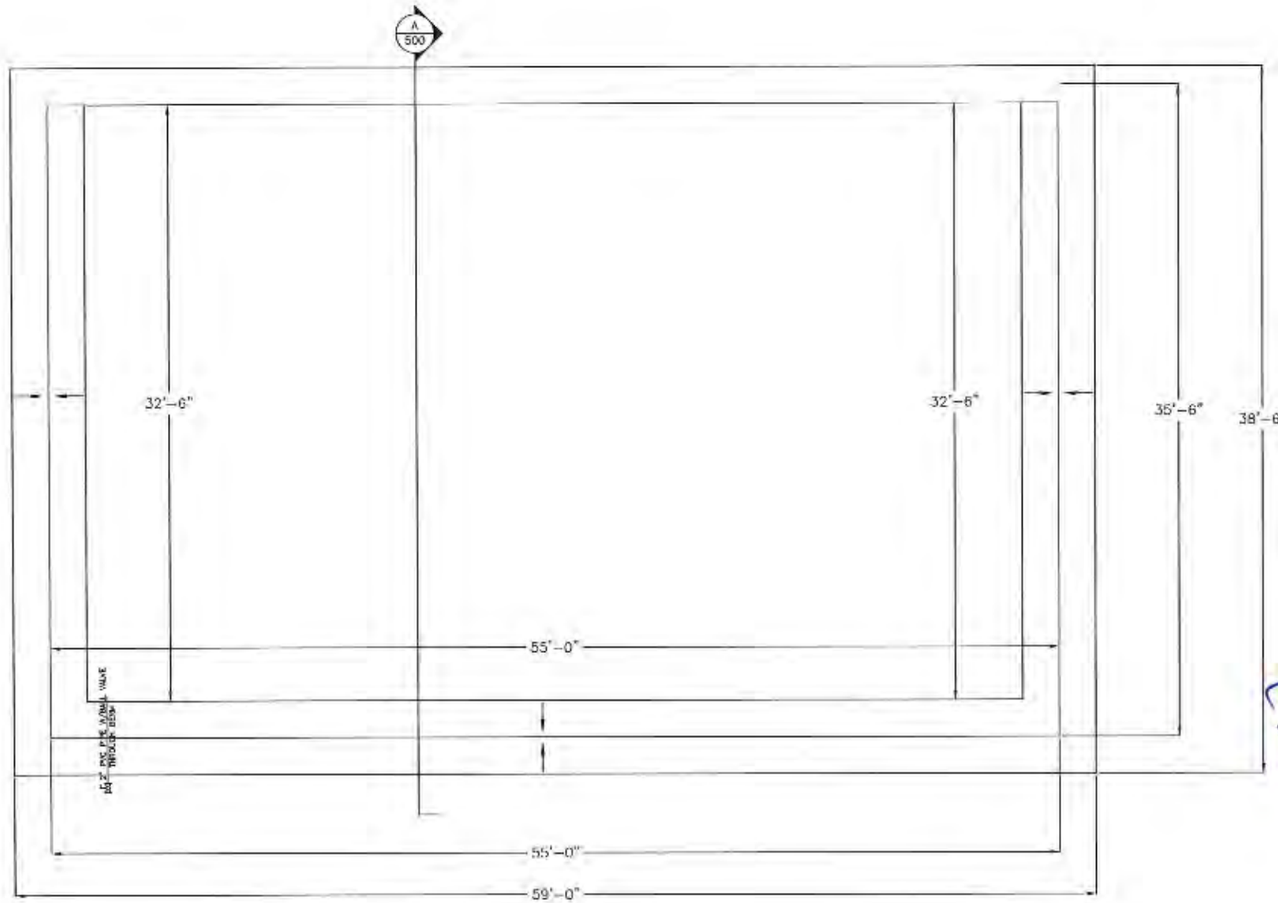
PROPRIETARY STATEMENT

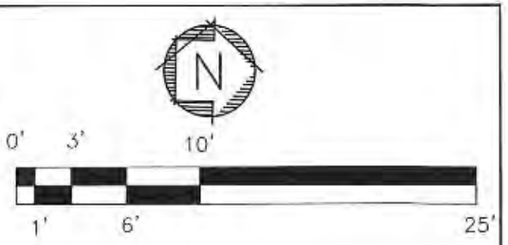
TITLE: TRUCK TRANSFER PAD & TANK PAD SECTIONS AND DETAILS

SAFETY-KLEEN SYSTEMS, INC.
5400 LEGACY DR. CLUSTER III, BLDG.3 PLANO, TX 75024
PHONE: 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1/4"=1'	JEK	DDP	DDP	DDP	3/19/09

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-4100-599	F





CONTAINMENT CALCULATIONS

55'-0"L X 35'-6"W X 7.5"D X 7.48 GAL/CF = +9127 GAL.

DISPLACEMENT OF RAMPED AREA (120'-0")

.5 X 120'-0" X 2'-0" X 7.5" X 7.48 GAL/CF = -561 GAL.

DISPLACEMENT OF BERMED AREA (NORTH SIDE)
.5 X 55'-0" X 1'-0" X 7.5" X 7.48 GAL/CF = -128 GAL.

24 HR 25 YR RAINFALL EVENT

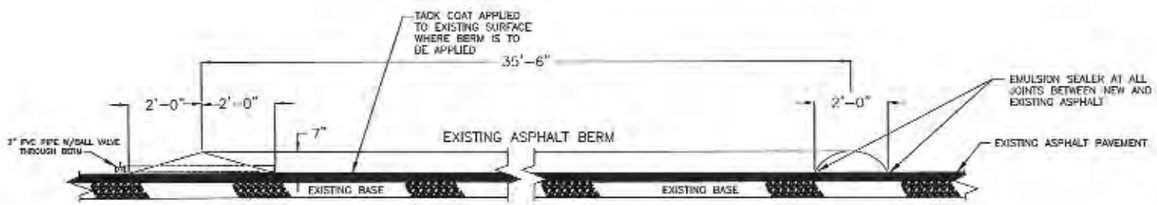
55'-0" X 35'-6" X 5.5"/12 = -6694 GAL.

EXCESS CONTAINMENT = +1744 GAL.

REQUIRED CONTAINMENT-10%
78 PALLETS W/4-55 GALLON DRUMS = 17160 GAL.
10% OF TOTAL VOLUME = 1716 GAL.

TOTAL EXCESS CONTAINMENT = +28 GAL.

BRIAN E. LEWIS
NO. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL



SECTION A
N.T.S.

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6885
Email: engineering@rtesglobal.com
http://rtesglobal.com

GENERAL NOTES

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	UPDATED FOR PART B RENEWAL	JEK	JL	JL	052620
0	ISSUED FOR REVIEW	JEK	DDP	DDP	102715

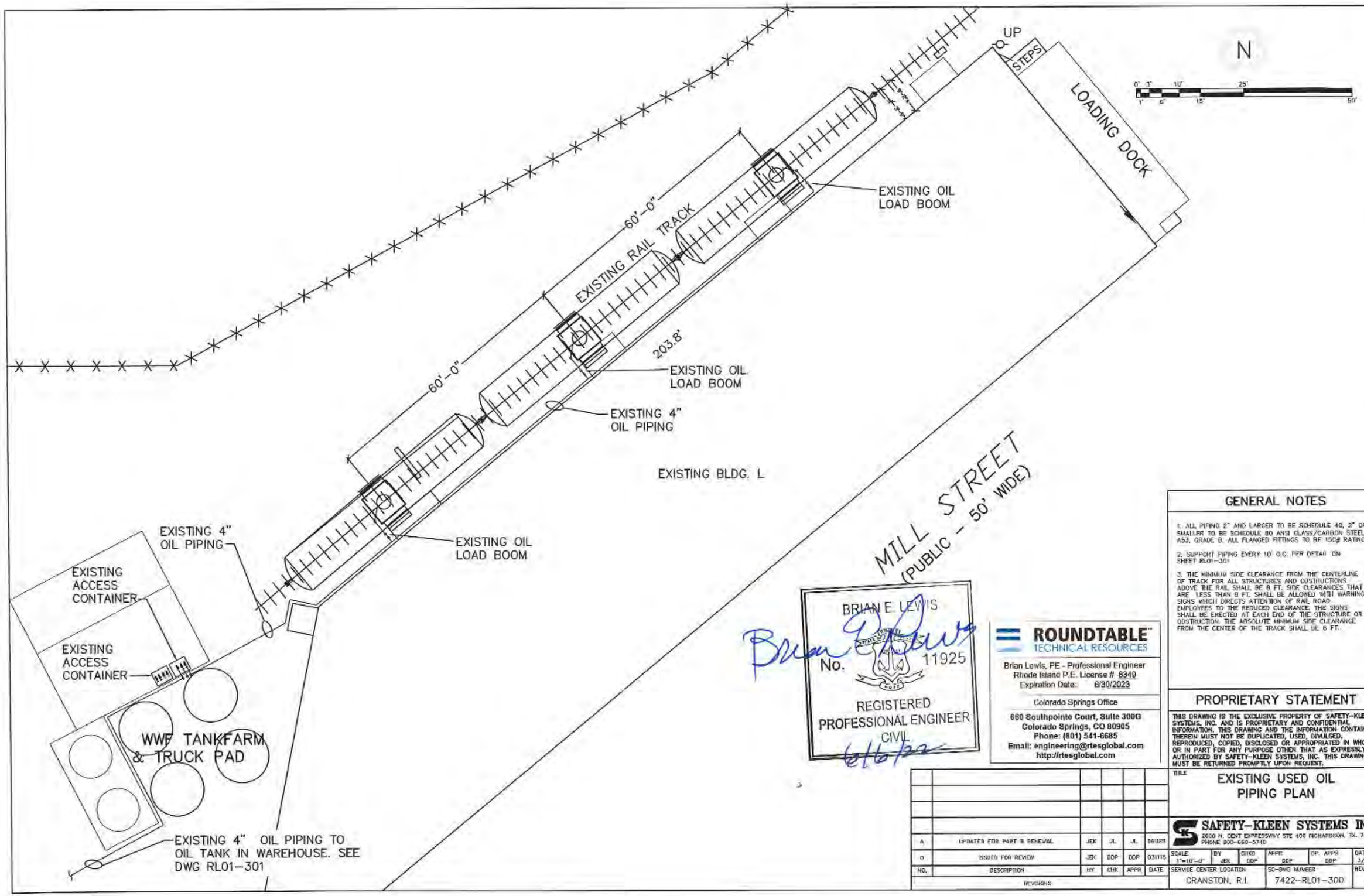
REVISIONS

TITLE
EXISTING ASPHALT CONTAINMENT BERM

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE: 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1/4" = 1'-0"	JEK	DDP			3/21/18

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-9000-500	A



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

GENERAL NOTES

1. ALL PIPING 2" AND LARGER TO BE SCHEDULE 40, 2" OR SMALLER TO BE SCHEDULE 80 ANSI CLASS/CARBON STEEL, A53, GRADE B. ALL FLANGED FITTINGS TO BE 150# RATING.

2. SUPPORT PIPING EVERY 10' O.C. PER DETAIL ON SHEET RL01-301

3. THE MINIMUM SIDE CLEARANCE FROM THE CENTERLINE OF TRACK FOR ALL STRUCTURES AND OBSTRUCTIONS ABOVE THE RAIL SHALL BE 8 FT. SIDE CLEARANCES THAT ARE LESS THAN 8 FT. SHALL BE ALLOWED WITH WARNING SIGNS WHICH DIRECTS ATTENTION OF RAIL ROAD EMPLOYEES TO THE REDUCED CLEARANCE. THE SIGNS SHALL BE ERECTED AT EACH END OF THE STRUCTURE OR OBSTRUCTION. THE ABSOLUTE MINIMUM SIDE CLEARANCE FROM THE CENTER OF THE TRACK SHALL BE 6 FT.

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061021
0	ISSUED FOR REVIEW	JEK	DDP	DDP	031115

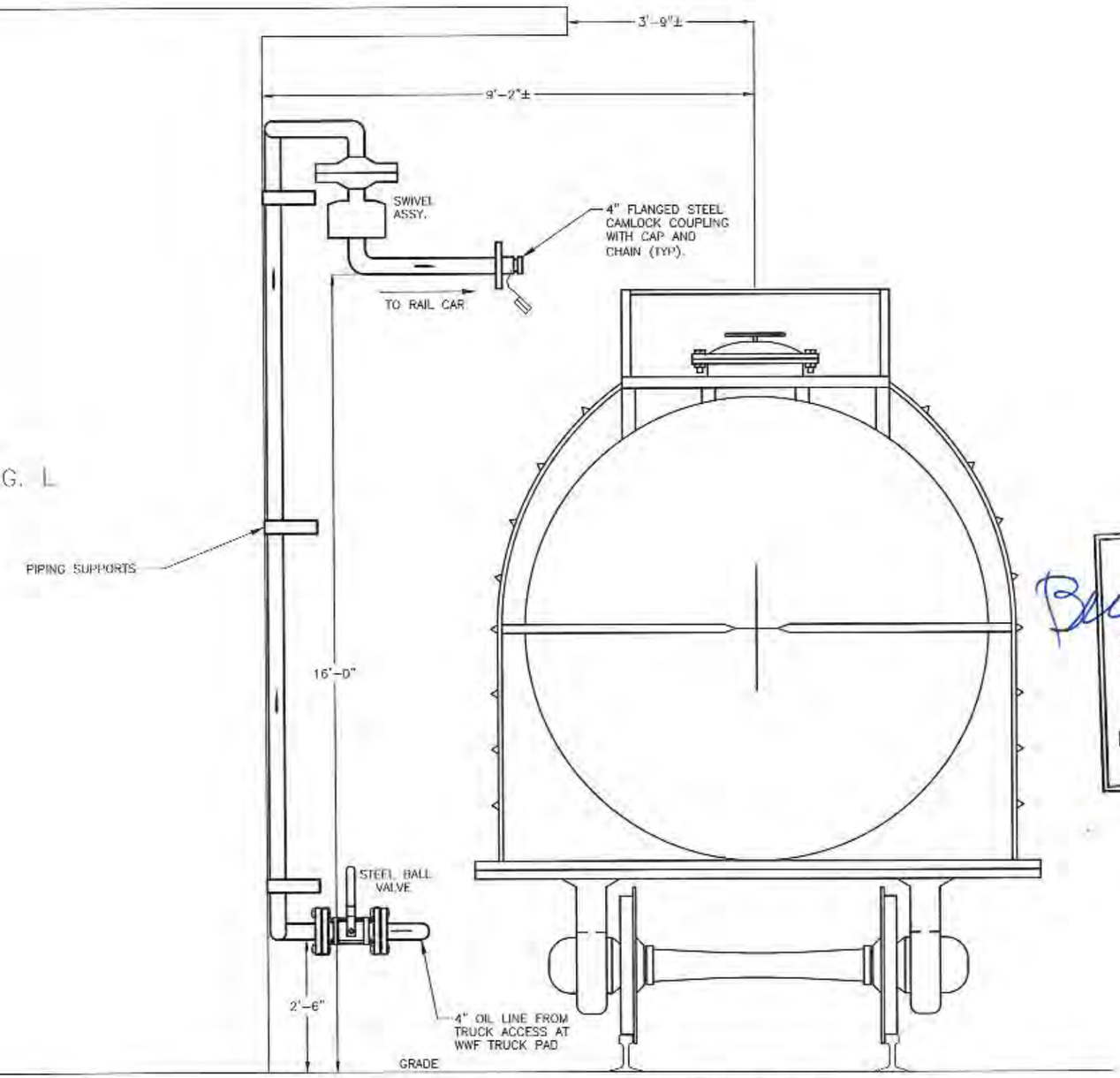
REVISIONS

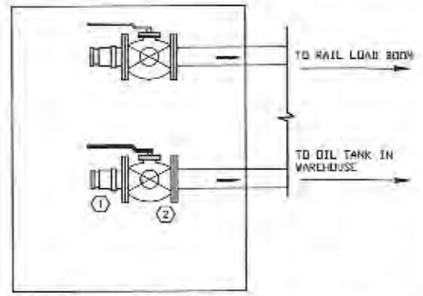
TITLE
EXISTING USED OIL PIPING PLAN

SAFETY-KLEEN SYSTEMS INC.
2600 N. CENT EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPR	DP. APPR	DATE
1"=10'-0"	JEK	DDP	DDP	DDP	3/11/15

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-RL01-300	A





ACCESS CONTAINER PLAN

SCALE: NONE

ACCESS CONTAINER EQUIPMENT SCHEDULE

MARK	PART DESCRIPTION	MANUFACTURER MODEL NUMBER	REMARKS
(1)	4" FLANGED CAMLOCK COUPLING WITH CAP AND CHAIN		
(2)	4" BALL VALVE		FURNISH WITH LOCKABLE HANDLE

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE™ TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

GENERAL NOTES

1. ALL PIPING 2" AND LARGER TO BE SCHEDULE 40, 2" OR SMALLER TO BE SCHEDULE 80 ANSI CLASS/CARBON STEEL A53, GRADE B. ALL FLANGED FITTINGS TO BE 150# RATING

2. SUPPORT PIPING EVERY 10' O.C. PER DETAIL ON SHEET RL01-301

3. THE MINIMUM SIDE CLEARANCE FROM THE CENTERLINE OF TRACK FOR ALL STRUCTURES AND OBSTRUCTIONS ABOVE THE RAIL SHALL BE 8 FT. SIDE CLEARANCES THAT ARE LESS THAN 8 FT. SHALL BE ALLOWED WITH WARNING SIGNS WHICH DIRECTS ATTENTION OF RAIL ROAD EMPLOYEES TO THE REDUCED CLEARANCE. THE SIGNS SHALL BE ERECTED AT EACH END OF THE STRUCTURE OR OBSTRUCTION. THE ABSOLUTE MINIMUM SIDE CLEARANCE FROM THE CENTER OF THE TRACK SHALL BE 6 FT.

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART H RENEWAL	JEK	JL	JL	061120
A	ADD BALL VALVE	JEK	DDP	DDP	032515
0	ISSUED FOR REVIEW	JEK	DDP	DDP	031115

REVISIONS

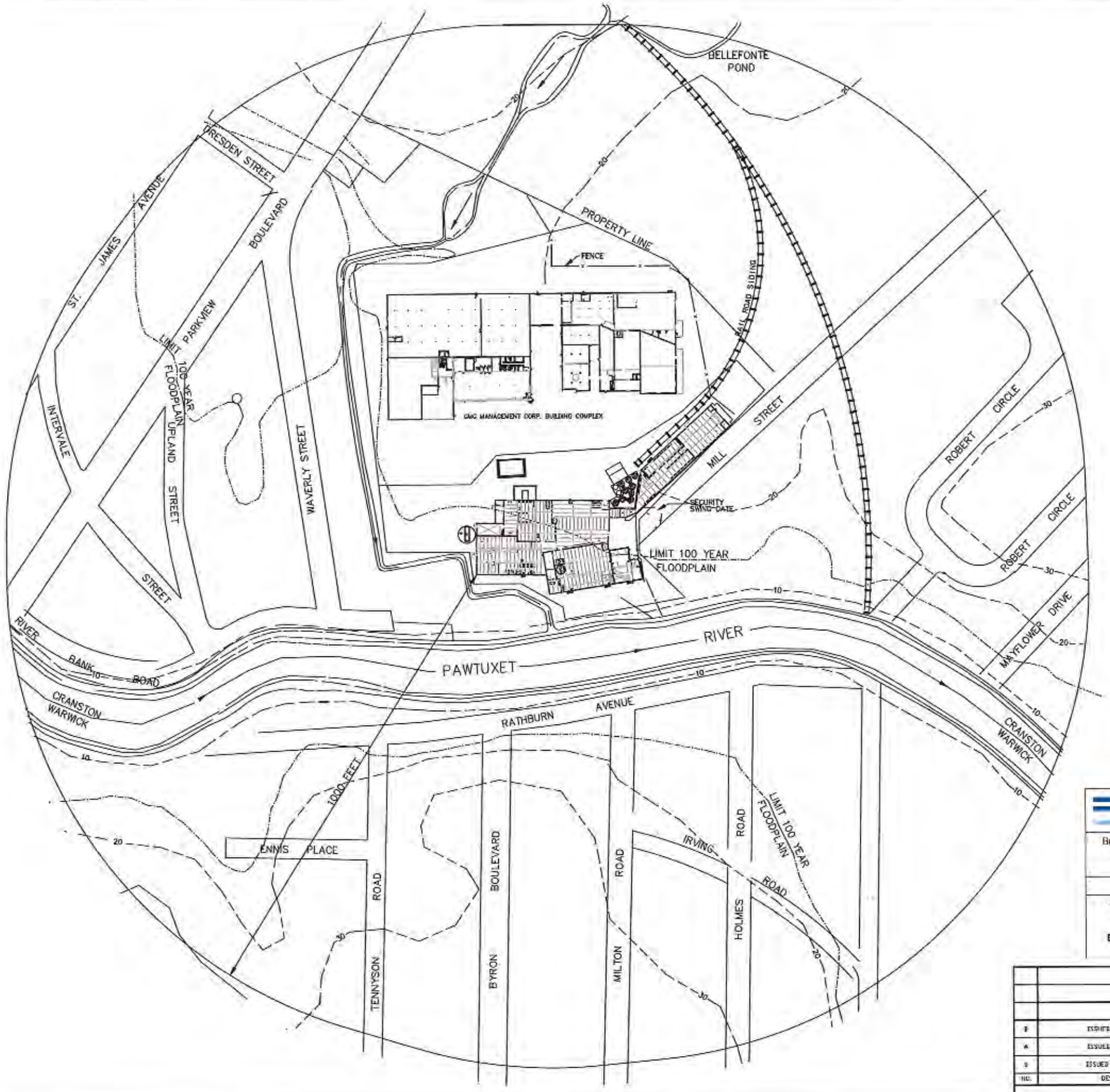
TITLE

EXISTING RAIL CAR OIL SWIVEL BOOM

SAFETY-KLEEN SYSTEMS, INC.
2600 N CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE: 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
N.T.S.	JEK	DDP	DDP	DDP	3/11/15

STANDARD BRANCH LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-RL01-900	B



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

GENERAL NOTES

1. LIMITS OF 100 YEAR FLOOD PLAIN FROM FEMA COMMUNITY PANEL #445395-0007E.
2. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
3. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS; BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
4. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS; BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email; engineering@rtesglobal.com
http://rtesglobal.com

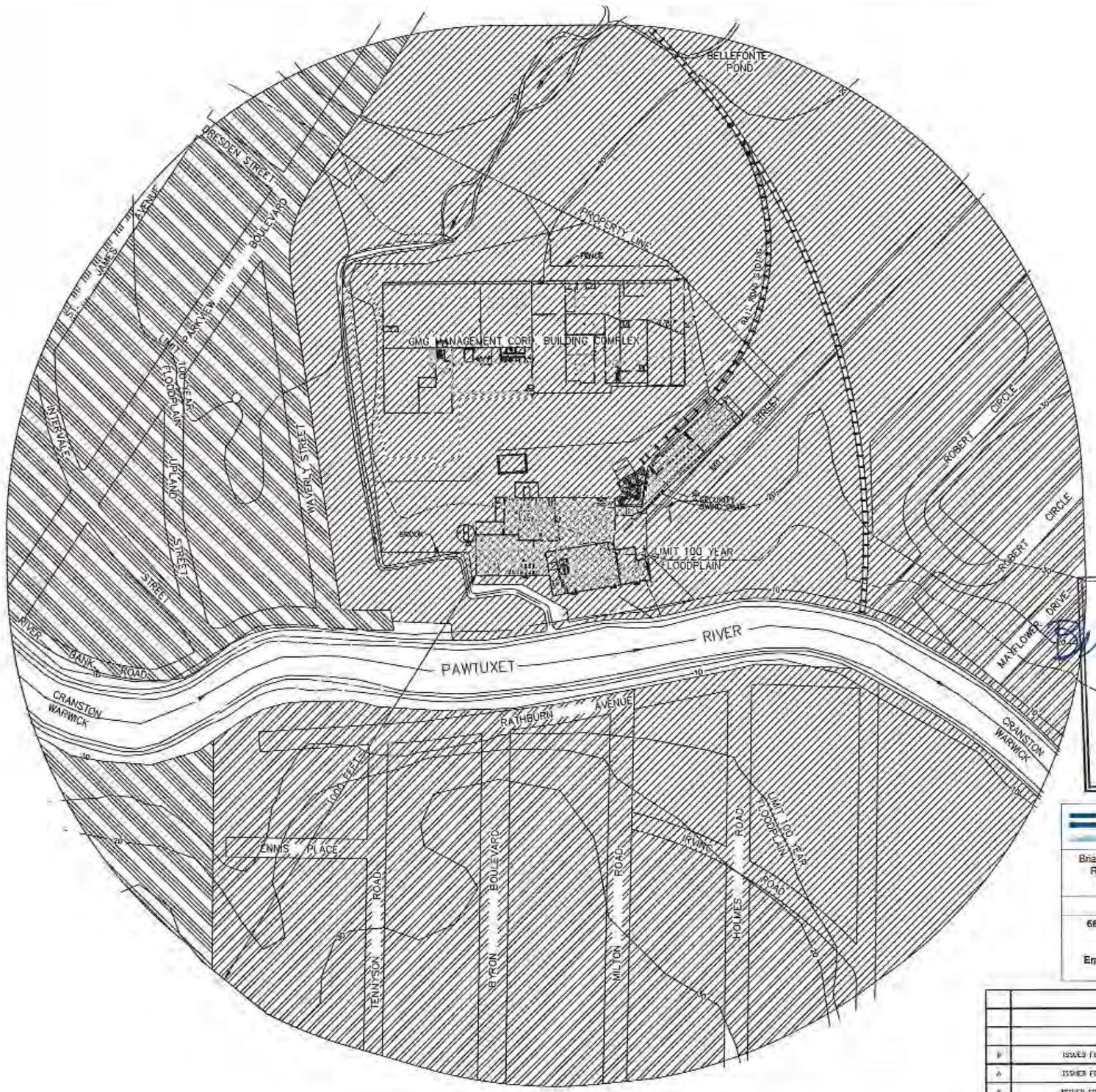
NO.	DESCRIPTION	BY	CHK	APVR	DATE
	REVISIONS				
B	ISSUED FOR PERMIT	JEK	JL	JL	06/28/23
A	ISSUED FOR PERMIT	JEK	AB	AB	06/29/23
0	ISSUED FOR REVIEW	JEK	GC	GC	012409

TITLE
1000 FT. RADIUS MAP

SAFETY-KLEEN SYSTEMS, INC.
5400 LEGACY DR. CLUSTER II BLDG 3 PLANO, TX 75024
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=100'	JEK	GC	GC		01/24/08

SERVICE CENTER LOCATION: CRANSTON, R.I.
SC-DWG NUMBER: 7422-SP00-006
REV. NO.: B



BRIAN D. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/6/23

GENERAL NOTES

1. LIMITS OF 100 YEAR FLOOD PLAIN FROM FEMA COMMUNITY PANEL #445396-0007B.
2. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
3. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
4. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

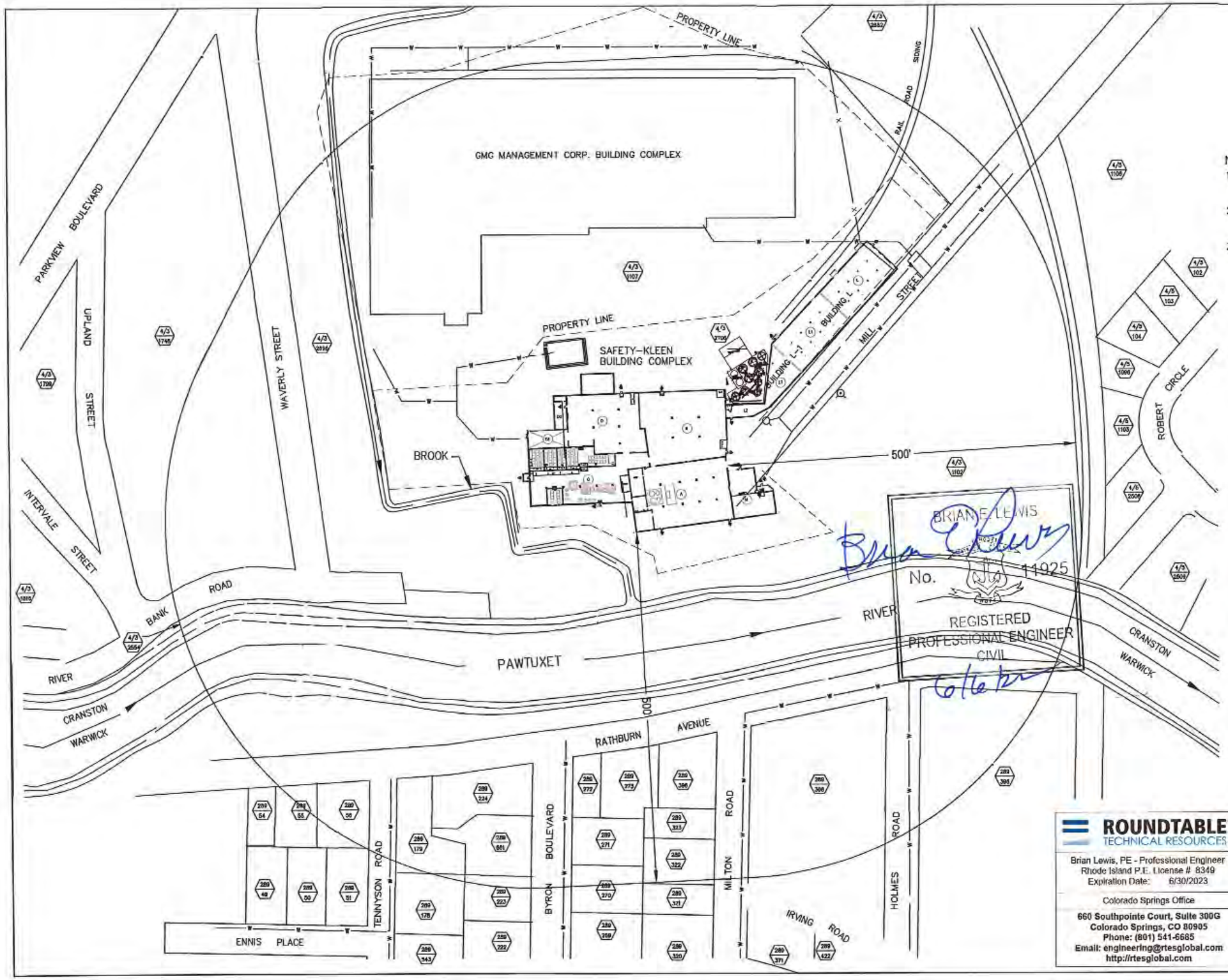
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
P	ISSUED FOR PERMIT	JDK	L	L	6/27/11
A	ISSUED FOR PERMIT	JDK	MV	MB	05/29/13
B	ISSUED FOR REVIEW	JDK	GC	GC	01/24/08

TITLE
1000 FT. RADIUS LAND USE MAP

SAFETY-KLEEN SYSTEMS, INC.
2600 LEGACY DR. FRISCO TX BLDG. 3 PLANO, TX. 75024
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=100'	JDK	GC	DC		01/24/08

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO
CRANSTON, R.I.	7422-SP00-007	B



NOTES:

1. LIMITS OF 100 YEAR FLOOD PLAIN FROM FEMA COMMUNITY PANEL #445396-0007B.
2. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
3. THE 500 FOOT RADIUS IS MEASURED FROM BUILDINGS A, B, C, AND D.

LEGEND:

- PLAT/LOT — TAX ASSESSOR'S PLAT/LOT
- PROPERTY LINE
- EXISTING RAILROAD TRACKS
- EXISTING FENCE
- WATER LINE
- RIVER / BROOK
- FIRE HYDRANT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
3	ISSUED FOR PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	JEK	AS	AS	062315
2	ISSUED FOR REVIEW	JEK	GC	CC	012408

REVISIONS

GENERAL NOTES

1. LIMITS OF 100 YEAR FLOOD PLAIN FROM FEMA COMMUNITY PANEL #445396-0007B.
2. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
3. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
4. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

PROPRIETARY STATEMENT

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

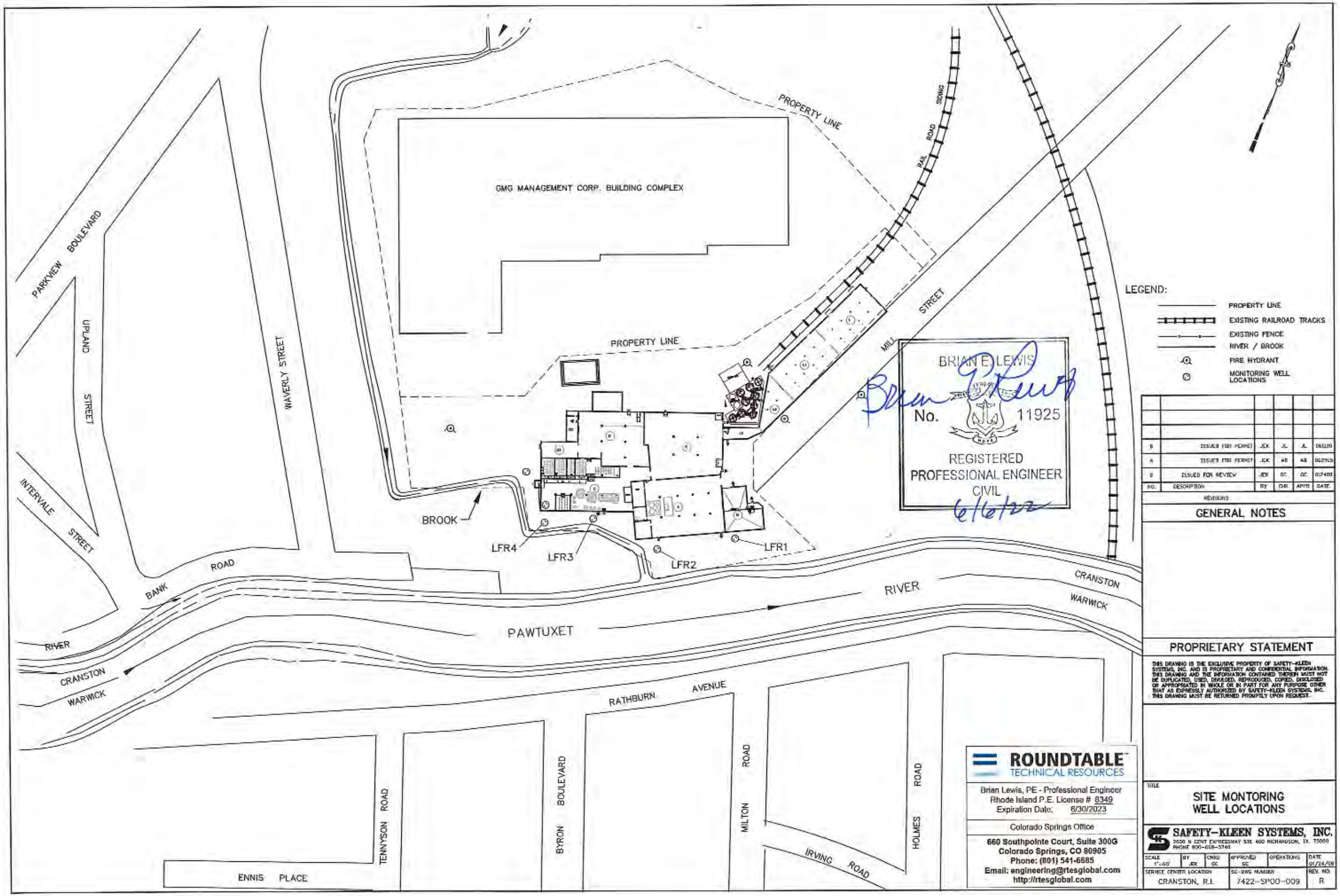
TITLE

500 FT. RADIUS MAP

SAFETY-KLEEN SYSTEMS, INC.
5400 LEGACY DR. CLUSTER II BLDG. 3 PLANO, TX. 75024
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=80'	JEK	GC	GC		01/24/08

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-SP00-008	B



LEGEND:

- PROPERTY LINE
- EXISTING RAILROAD TRACKS
- EXISTING FENCE
- RIVER / BROOK
- FIRE HYDRANT
- MONITORING WELL LOCATIONS

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/6/22

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	ISSUED FOR PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	JEK	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	CC	CC	012408

GENERAL NOTES

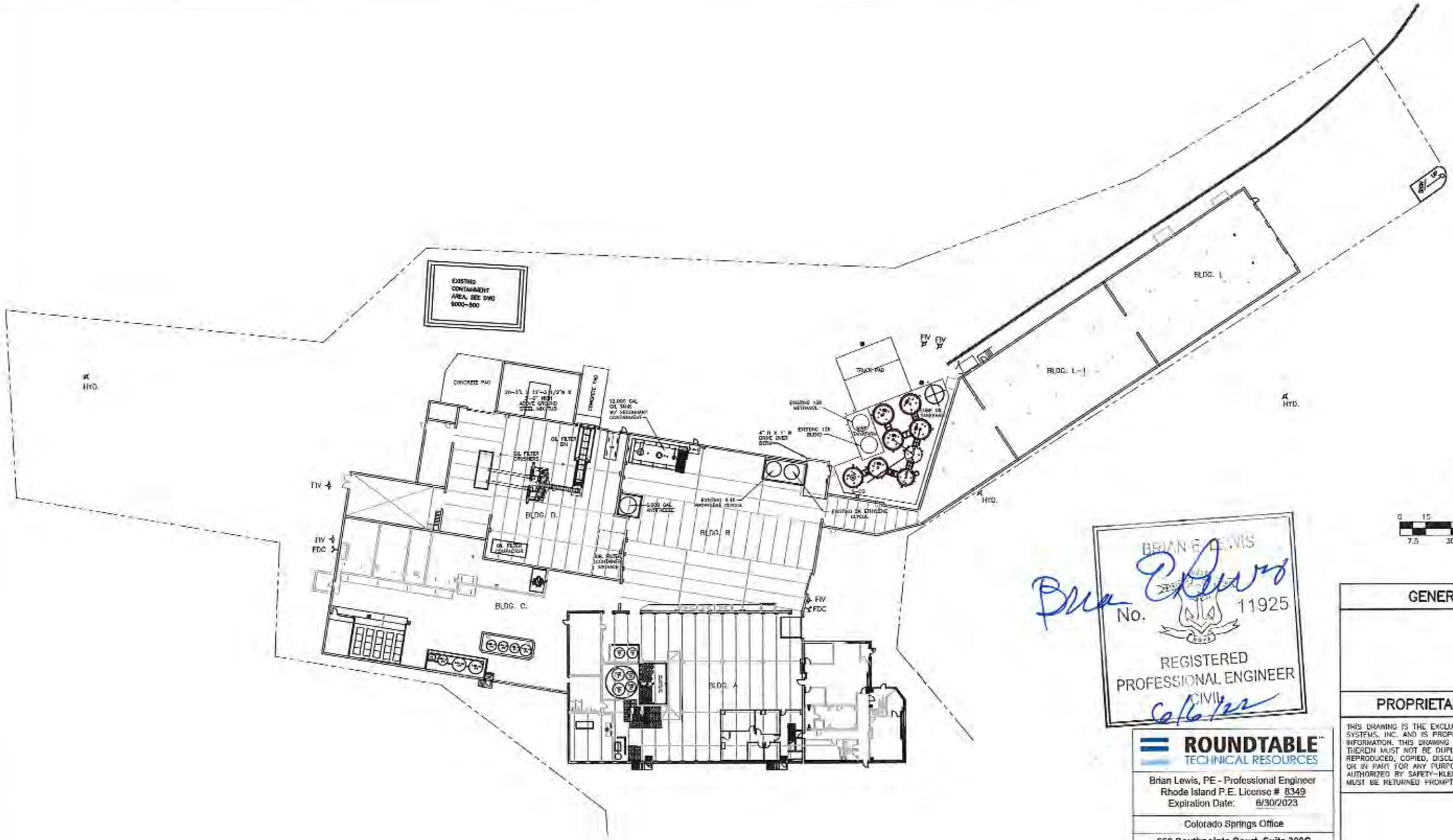
PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6585
Email: engineering@rtesglobal.com
http://rtesglobal.com

TITLE
SITE MONTORING WELL LOCATIONS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=60'	JEK	CC	CC		05/24/08
SERVICE CENTER LOCATION		SC-DWG NUMBER			REV. NO.
CRANSTON, R.I.		7422-SP00-009			B



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

GENERAL NOTES

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	ISSUED FOR PERMIT	JEK	JL	JL	061120
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

REVISIONS

TITLE

FACILITY LAYOUT PLAN

SAFETY-KLEEN SYSTEMS, INC.
5400 LEGACY DR. CLUSTER III, BLDG. 3 PLANO, TX. 75024 800-669-5740

SCALE	BY	CHKD	APPR	OP. APPR	DATE
1"=30'-0"	JEK	GC	GC	GC	6/2/10

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	7422-SP00-010	A

REFERENCES:

1) SEE RECORDED PLAN ENTITLED: "RIVERBANK INDUSTRIAL PARK A.P. 4-3 LOTS 2668, 2564 1107 MILL STREET CRANSTON, R.I. PREPARED FOR: G.M.O. MANAGEMENT CORP.", DATED JULY 15, 2003, REVISED 11/17/03, PREPARED BY CROSSMAN ENGINEERING, INC. AND FILED AS PLAT 703 MAP 466.

NOTES:

1) THIS PLAN IS BASED ON A GROUND SURVEY PERFORMED BETWEEN NOVEMBER 28, 2007 AND DECEMBER 4, 2007.

2) THE UTILITIES HEREON ARE SHOWN FROM FIELD LOCATIONS OF SURFACE STRUCTURE AND MAY NOT REFLECT ALL UTILITIES ON THE SUBJECT PARCEL. CONTACT DIG-SAFE PRIOR TO ANY EXCAVATION.

3) THE FLOOD ZONE LIMIT WAS SCALED FROM THE FEMA FLOOD INSURANCE RATE MAP AND NOT A PRODUCT OF A FLOOD PLAIN DETERMINATION SURVEY. THE PARCEL LIES PARTLY IN ZONE AE, AND PARTLY IN ZONE B, AS SHOWN ON FIRM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 445398 0007 B, MAP REVISED NOV. 1, 1984.

4) THERE IS NO VISIBLE EVIDENCE OF ANY RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR ADDITIONS, AS OF THE DATE OF THIS PLAN.

5) THERE ARE NO KNOWN EXISTING OR PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES. THERE IS NO VISIBLE EVIDENCE OF ANY RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

6) THERE IS NO VISIBLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

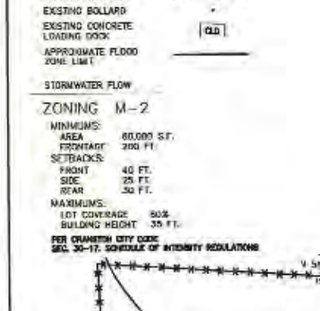
LEGEND:

EXISTING EDGE OF PAVEMENT
EXISTING CHAIN LINK FENCE
PROPOSED CHAIN LINK FENCE
EXISTING WATER GATE
EXISTING HYDRANT
FIRE INDICATOR VALVE
SIAMESE FIRE DEPT. CONNECTION
EXISTING WATER VALVE
EXISTING SANITARY SEWER CLEAN-OUT
EXISTING GAS GATE
EXISTING MONITORING WELL
EXISTING CATCH BASIN
EXISTING UTILITY POLE
EXISTING OVERHEAD WIRES
EXISTING HAND HOLE
EXISTING TREE LINE
EXISTING BOLLARD
EXISTING CONCRETE LOADING DOCK
APPROXIMATE FLOOD ZONE LIMIT
STORMWATER FLOW

ZONING M-2

MINIMUMS:
AREA 60,000 S.F.
FRONTAGE 200 FT.
SETBACKS:
FRONT 40 FT.
SIDE 25 FT.
REAR 50 FT.
MAXIMUMS:
LOT COVERAGE 80%
BUILDING HEIGHT 35 FT.

PER CRANSTON CITY CODE SEC. 30-17. SCHEDULE OF INTENSITY REGULATIONS



LOCUS MAP
(NOT TO SCALE)

NO.	DESCRIPTION	BY	CHK	APPR	DATE
F	UPDATED FOR PART B PERMIT	JEK	JL	JL	081120
E	ADD PROPOSED CONTAINMENT	JEK	DDP	DDP	032118
D	ADD RAIL SPUR	JEK	DDP	DDP	121714
C	REVISE FENCING/GATES/NOTES	JEK	DDP	DDP	071712
B	ADD PROPOSED ROLL OFF PAD	JEK	DDP	DDP	060812
A	ADD PROPOSED GATES/FENCE	JEK	DDP	DDP	091809
0	NEW ISSUE	JEK	DDP	DDP	090909

REVISIONS

GENERAL NOTES

PROPRIETARY STATEMENT

TITLE
EXISTING SITE PLAN
167 MILL ST.
CRANSTON, R.I. 02905

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

BRIAN E. LEWIS No. 11525 REGISTERED PROFESSIONAL ENGINEER CIVIL
Brian E. Lewis 6/6/23

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-6740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1" = 30'-0"	PSC	JEK	DDP	DDP	9/09/09
SERVICE CENTER LOCATION			SC-DWG. NO.		REV. NO.
CRANSTON, RI.			7422-SP00-013-3		F

REFERENCES:

1) SEE RECORDED PLAN ENTITLED: "RIVERBANK INDUSTRIAL PARK A.P. 4-3 LOTS 2680, 2504 1107 MIL STREET CRANSTON, R.I. PREPARED FOR: G.M.G. MANAGEMENT CORP.", DATED JULY 15, 2003, REVISED 11/17/03, PREPARED BY CROSSMAN ENGINEERING, INC. AND FILED AS PLAT 703 MAP 468.

LEGEND:

EXISTING EDGE OF PAVEMENT	
EXISTING CHAIN LINK FENCE	—X— X—
PROPOSED CHAIN LINK FENCE	
EXISTING WATER GATE	WG
EXISTING HYDRANT	HYD.
FIRE INDICATOR VALVE	FIV.
SIAMESE FIRE DEPT. CONNECTION	FDC.
EXISTING WATER VALVE	WV
EXISTING SANITARY SEWER CLEAN-OUT	S-CO
EXISTING GAS GATE	GG
EXISTING MONITORING WELL	MW
EXISTING CATCH BASIN	CB
EXISTING UTILITY POLE	UP
EXISTING OVERHEAD WIRES	OHW
EXISTING HAND HOLE	HH
EXISTING TREE LINE	
EXISTING BOLLARD	
EXISTING CONCRETE LOADING DOCK	LOD
APPROXIMATE FLOOD ZONE LIMIT	
STORMWATER FLOW	

ZONING M-2

MINIMUMS:
- AREA 60,000 S.F.
- FRONTAGE 200 FT.

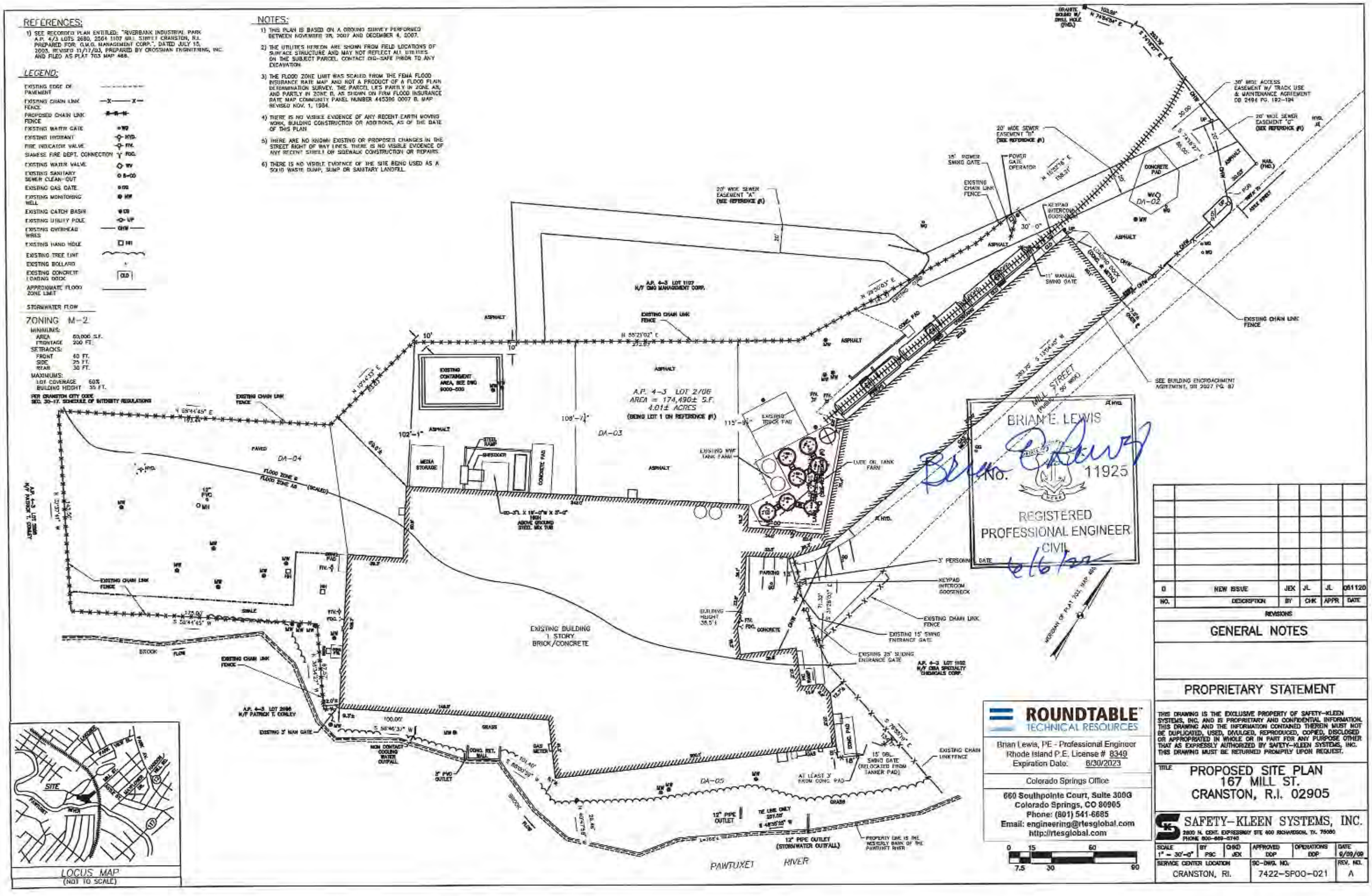
SETBACKS:
- FRONT 40 FT.
- SIDE 25 FT.
- REAR 30 FT.

MAXIMUMS:
- LOT COVERAGE 60%
- BUILDING HEIGHT 55 FT.

PER CRANSTON CITY CODE SEC. 30-17. SCHEDULE OF INTENSITY REGULATIONS

NOTES:

1) THIS PLAN IS BASED ON A GROUND SURVEY PERFORMED BETWEEN NOVEMBER 28, 2007 AND DECEMBER 4, 2007.
2) THE UTILITIES HEREON ARE SHOWN FROM FIELD LOCATIONS OF SURFACE STRUCTURE AND MAY NOT REFLECT ALL UTILITIES ON THE SUBJECT PARCEL. CONTACT DIG-SAFE PRIOR TO ANY EXCAVATION.
3) THE FLOOD ZONE LIMIT WAS SCALED FROM THE FEMA FLOOD INSURANCE RATE MAP AND NOT A PRODUCT OF A FLOOD PLAIN DETERMINATION SURVEY. THE PARCEL LIES PARTLY IN ZONE AE, AND PARTLY IN ZONE B, AS SHOWN ON FIRM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 445396 0007 B. MAP REVISED NOV. 1, 1984.
4) THERE IS NO VISIBLE EVIDENCE OF ANY RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR ADDITIONS, AS OF THE DATE OF THIS PLAN.
5) THERE ARE NO KNOWN EXISTING OR PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES. THERE IS NO VISIBLE EVIDENCE OF ANY RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
6) THERE IS NO VISIBLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.



ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

0 15 60
7.5 30 90

NO.	DESCRIPTION	BY	CHK	APPR	DATE
0	NEW ISSUE	JEK	JL	JL	051120

REVISIONS

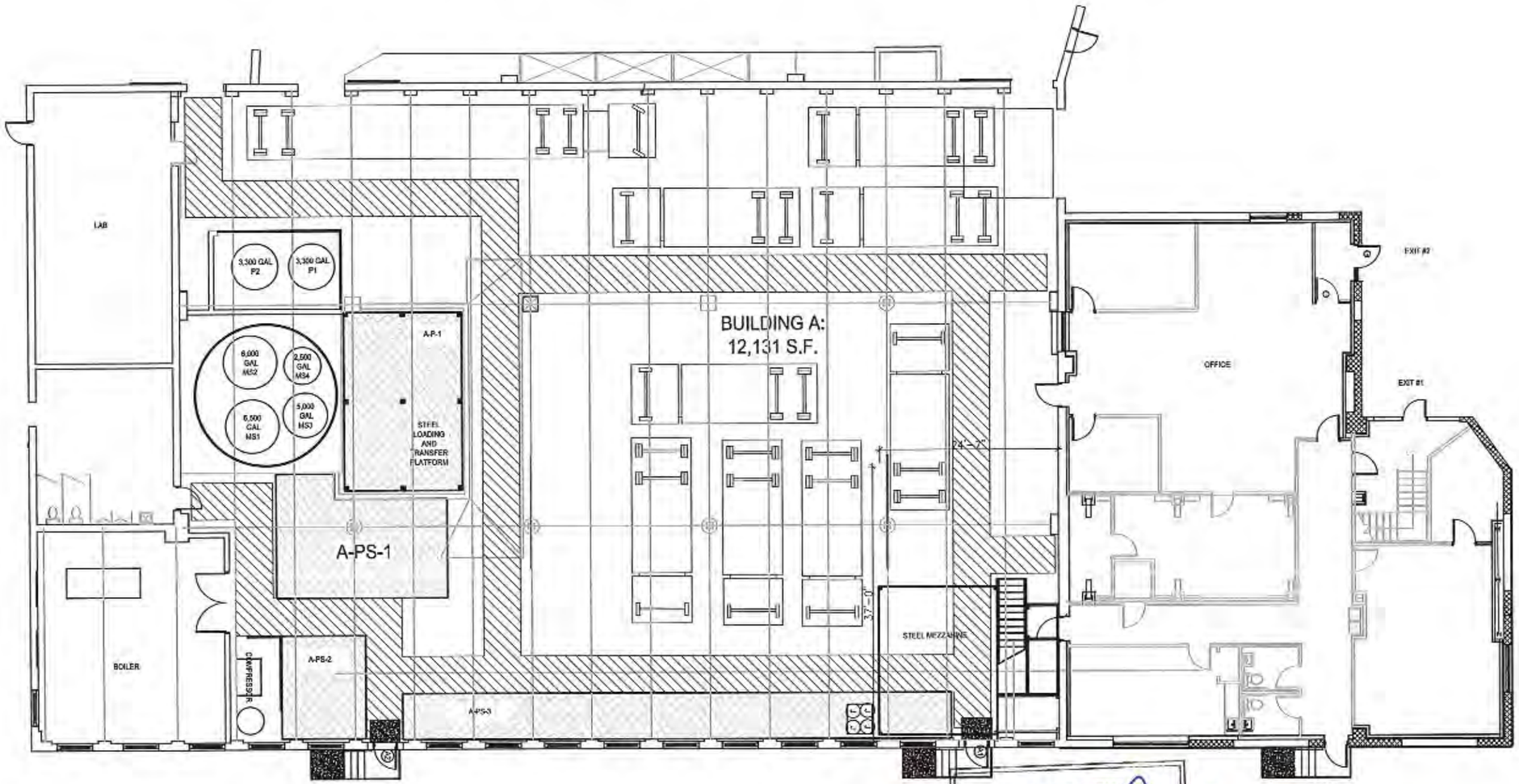
GENERAL NOTES

PROPRIETARY STATEMENT

TITLE: PROPOSED SITE PLAN
167 MILL ST.
CRANSTON, R.I. 02905

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1" = 30'-0"	PSC	JEK	DDP	DDP	6/09/09
SERVICE CENTER LOCATION			SC-DWG. NO.		REV. NO.
CRANSTON, RI.			7422-SP00-021		A



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

TRAVEL PATHS

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR OFFICE ADDITION	JEK	DDP	DDP	012915
0	ISSUED FOR REVIEW	JEK	GC	GC	038210

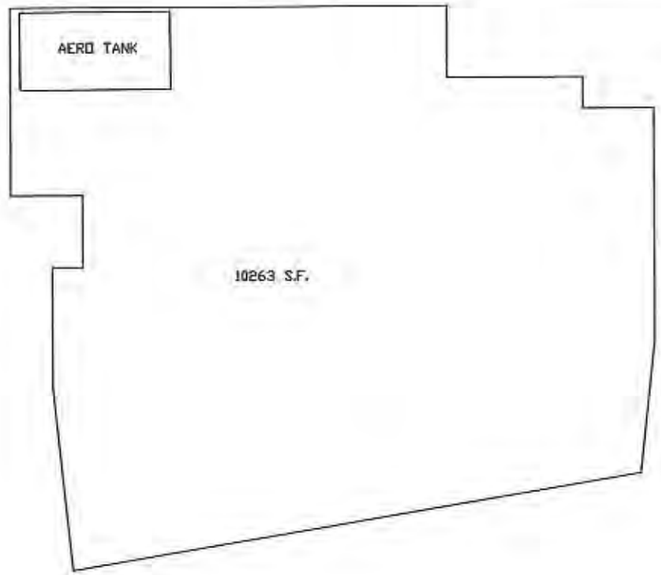
REVISIONS

TITLE
BUILDING A EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE. 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: 7422-WBDA-701



BLDG. B ROOM DEPTH BASED ON 6" CURBING

VOLUME OF FLOOR AREA

10,263 S.F. X 6" = 5131 C.F X 7.48 CF/GAL = +38,397 GAL.

DISPLACEMENT OF RAMP

(.5) 10'-6"L X 13'-3" X 6" = 35 C.F. X 7.48 CF/GAL = -261 GAL.

MISC. DISPL. OF EQUIPMENT (2%) = -767 GAL.

TOTAL CONTAINMENT = +37,369 GAL.

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

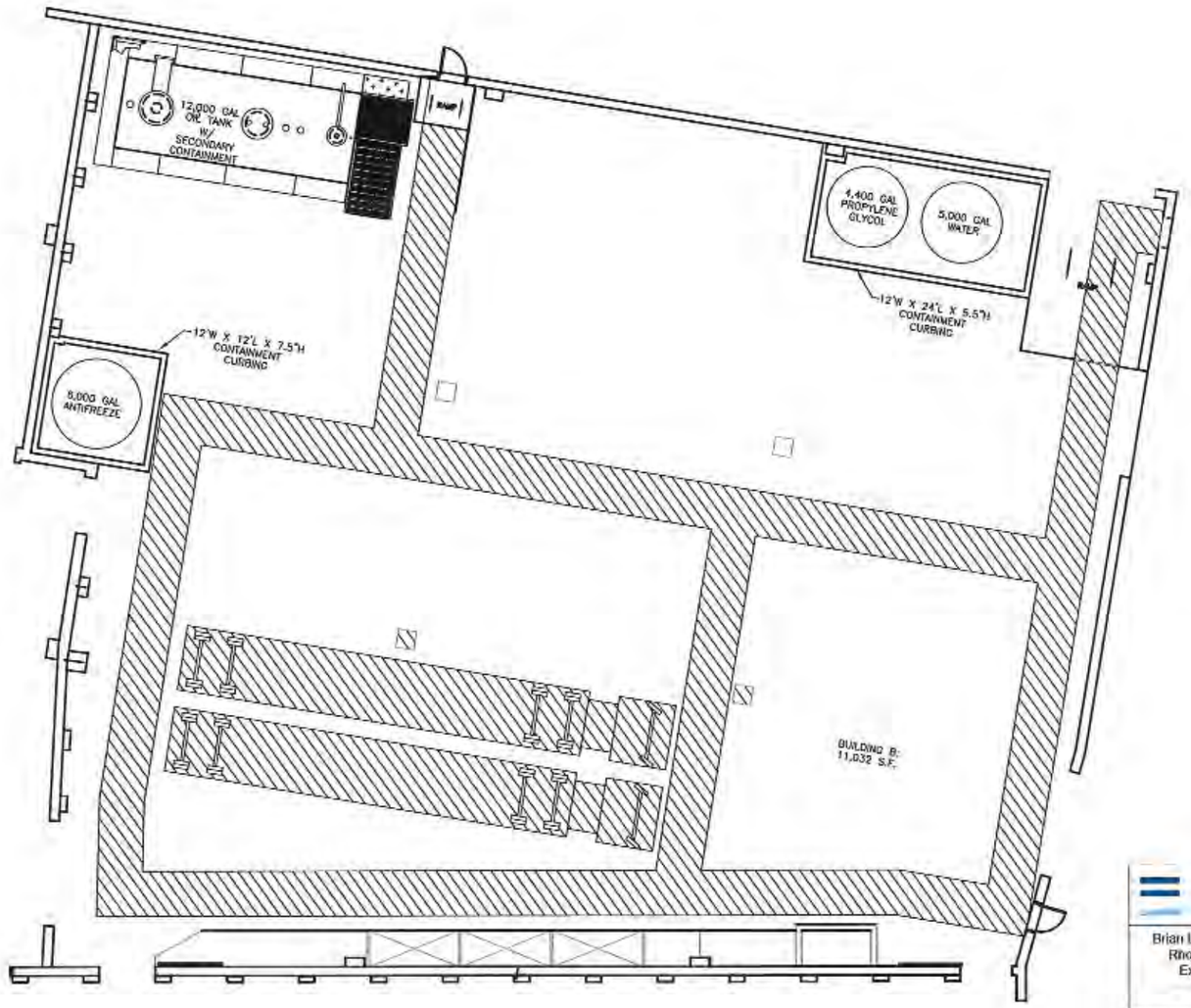
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

BLDG B AREA CONTAINMENT CALCULATIONS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPR	OP. APPR	DATE
NONE	JER	DDP	DDP	DDP	6/12/12

STANDARD BRANCH	SC-DWG NUMBER	REV. NO.
CRANSTON, RI.	7422-WB0B-049	0



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE™ TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

PROPRIETARY STATEMENT

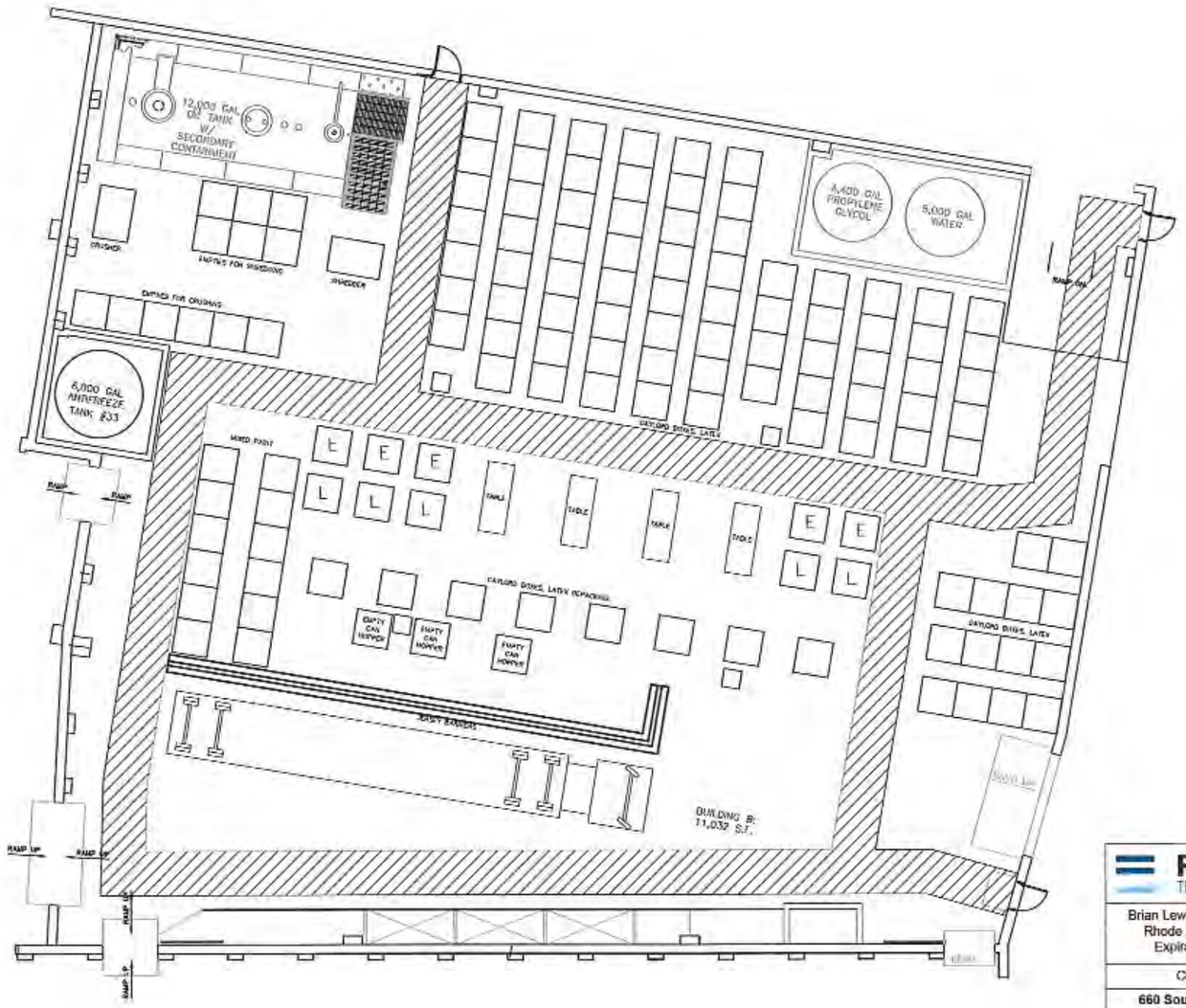
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
A	ISSUED FOR PERMIT	AB	AB	SB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

TITLE
EXISTING WAREHOUSE B
FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/28/18

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: 7422-WBDB-700



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/16/20

E BINS WITH EMPTY PAINT CANS

L LATEX PAINT TOTES

TRAVEL PATHS

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
0	NEW ISSUE	JEK	JL	JL	061020

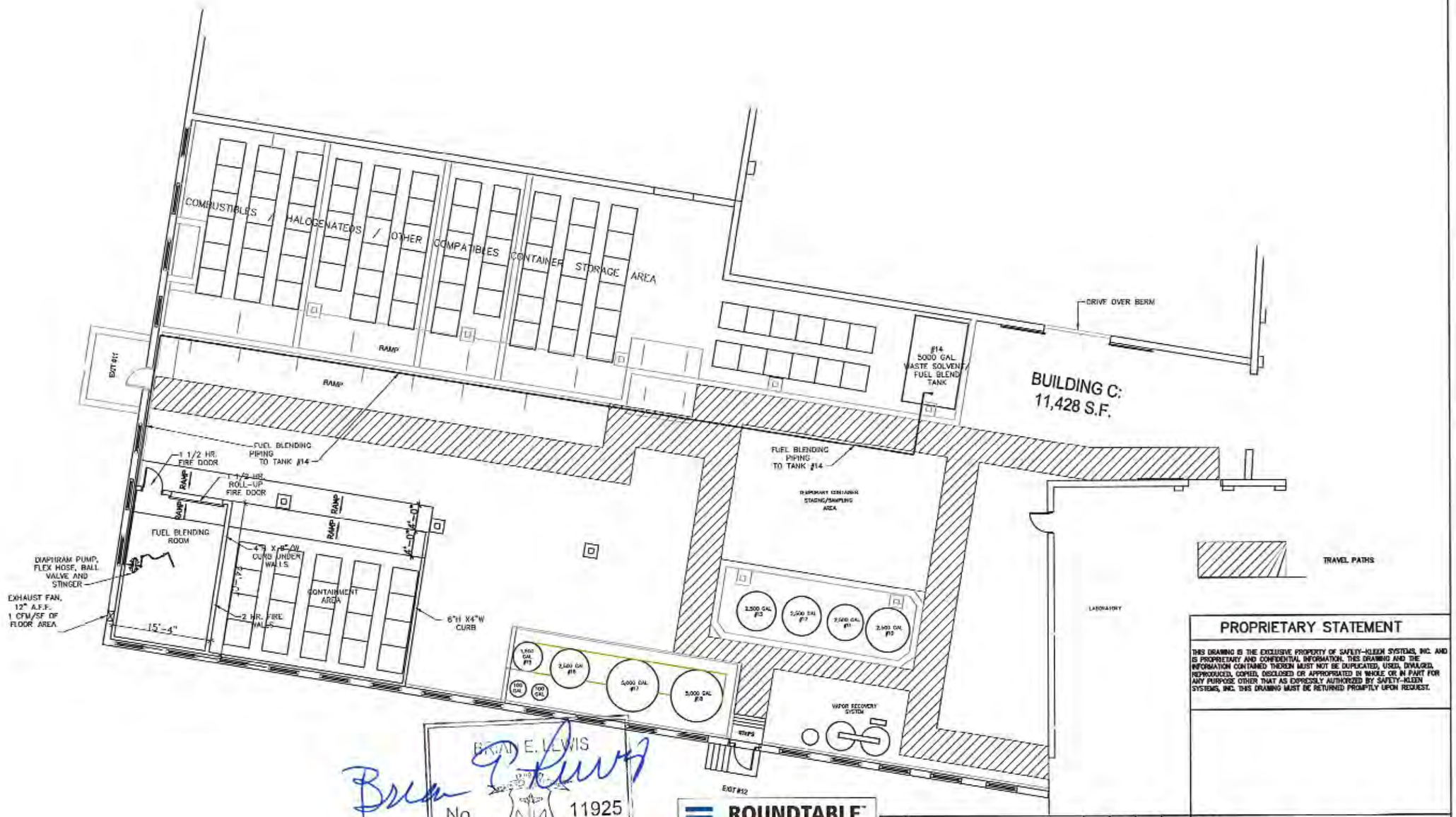
TITLE: WAREHOUSE B EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	JL	JL	JL	6/9/20

BRANCH LOCATION: CRANSTON, R.I.

STD-DVG-REV NO. 7422-WBDB-702



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	UPDATED FOR PART B PERMIT	JEK	JL	JL	040120
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

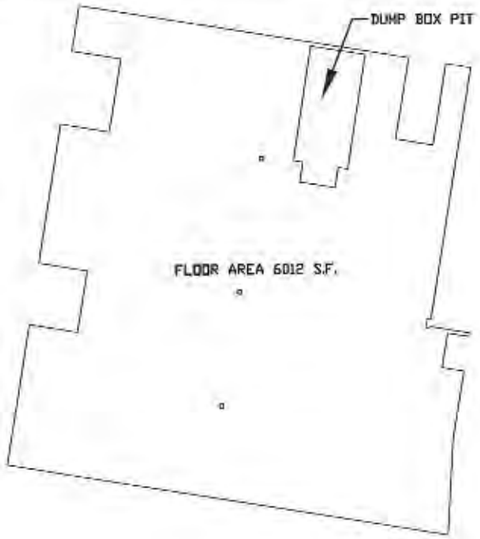
REVISIONS

TITLE
EXISTING WAREHOUSE C FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: 7422-WBOC-701



BLDG. D CRUSHER ROOM DEPTH BASED ON 2" ROLL OVER BERM AT BLDG. C & D OPENING.

VOLUME OF FLOOR AREA

6012 S.F. X 2" = 1002 C.F X 7.48 CF/GAL = +7,495 GAL.

VOLUME OF DUMP BOX PIT

21'L X 10'W X 4'3"D = 892 C.F. X 7.48 CF/GAL = +6,675 GAL.

3'-8" X 6'-6" X 4'3" = 101 C.F. X 7.48 CF/GAL = +757 GAL.

DISPL. OF DUMP BOX (ASSUMING 2" DEPTH ON FLOOR)

20'-4" X 9'-4" X 4'-5" = 838 C.F. X 7.48 CF/GAL = -6,268 GAL.

2'-3 1/2" X 2'-0" X 5'-10" = 26 C.F. X 7.48 CF/GAL = -194 GAL.

MISC. DISPL. OF EQUIPMENT (2%) = -170 GAL.

TOTAL CONTAINMENT = +8,295 GAL.

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8340
Expiration Date: 6/30/2023

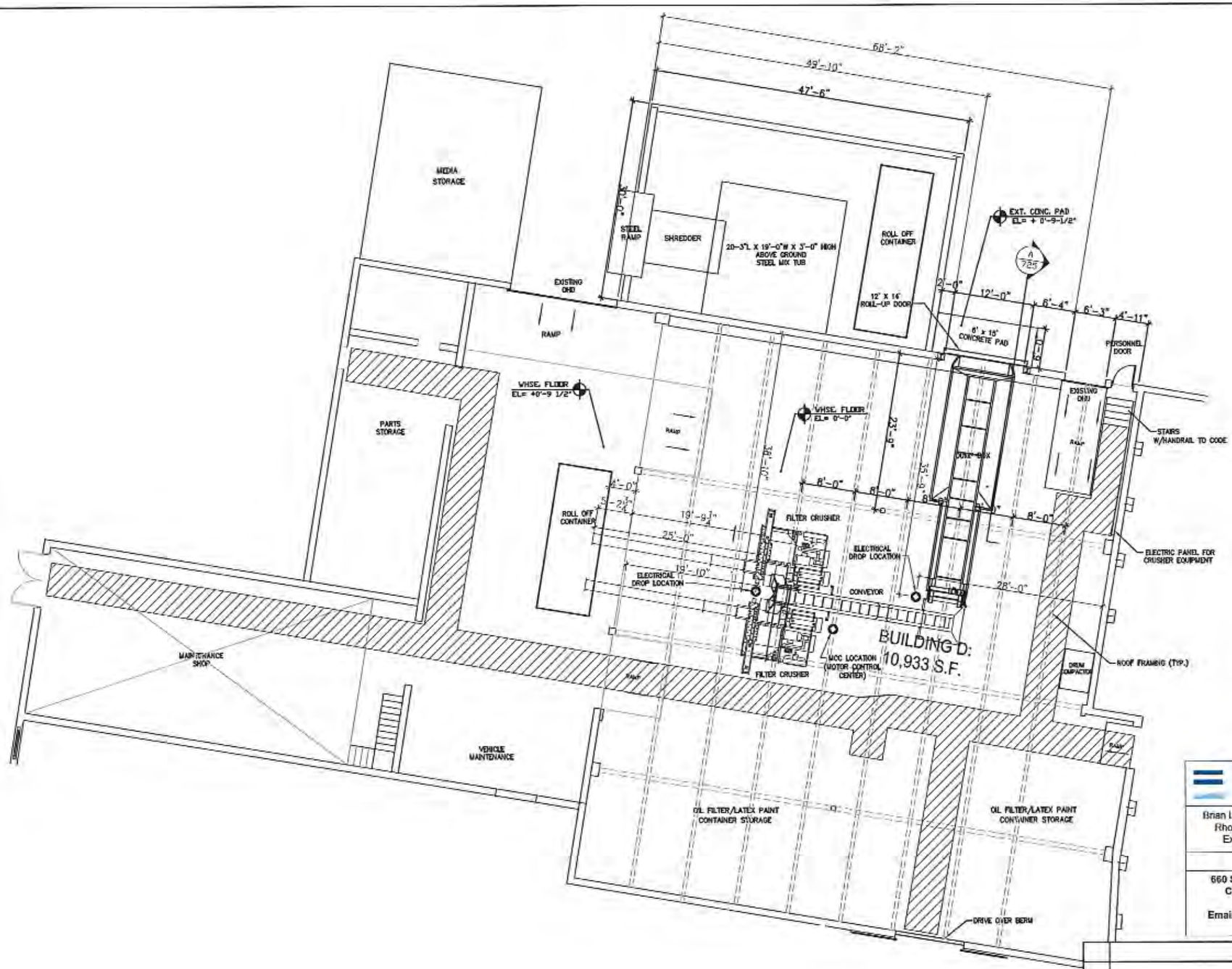
Colorado Springs Office
860 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

BLDG D CRUSHER SYSTEM AREA CONTAINMENT CALCULATIONS

SAFETY-KLEEN SYSTEMS, INC.
5360 LEGACY DR., BLDG. 2 SUITE 100 PLANO, TX. 75024 800-669-5740

SCALE	BY	CHKD	APPR.	OP. APPR	DATE
NONE	JEK	DDP	DDP	DDP	6/12/12

STANDARD BRANCH	SC-DWG NUMBER	REV. NO.
CRANSTON, RI.	7422-WB0D-049	0



N

0' 3' 10'
1" 8' 25'

TRAVEL PATHS

BRIAN E. LEWIS
No. 11926
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

GENERAL NOTES

1. ALL ELECTRICAL SHALL BE ORDINARY OR LIQUID TIGHT AS APPLICABLE.

2. BLDG. D CONTAINED AREA FLOOR, AND 4" COVE ON WALLS TO BE COATED WITH STONEHARD FLOOR COATING OR EQUIVILENT.

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
REVISIONS					
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	REVSE TO ABOVE GROUND MIX TUB	JEK	AB	AB	032415
0	ISSUED FOR REVIEW	JEK	AB	AB	021315

TITLE

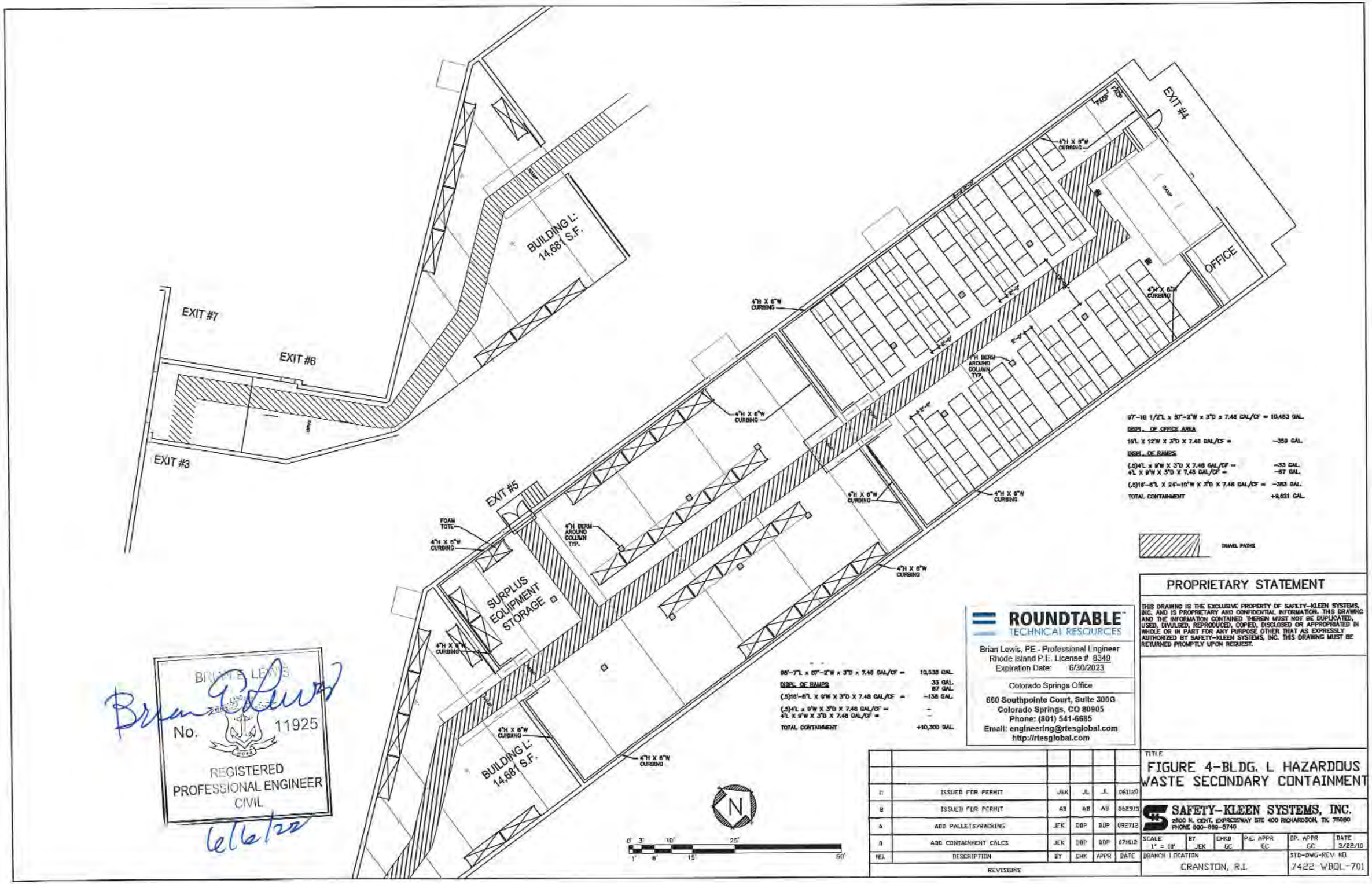
EXISTING WAREHOUSE D FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	DDP	DDP	DDP	10/10/11

BRANCH LOCATION: CRANSTON, R.I.

STD-DWG-REV NO.: 7422-WB00-707



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE™
TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

PROPRIETARY STATEMENT

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
C	ISSUED FOR PERMIT	JEK	JL	JL	061120
B	ISSUED FOR PERMIT	AB	AB	AB	062915
A	ADD PALLETS/RACKING	JEK	DDP	DDP	092712
0	ADD CONTAINMENT CALCS	JEK	DDP	DDP	071012

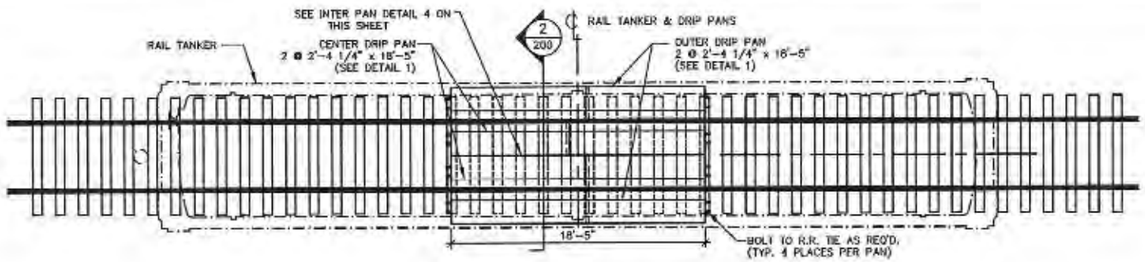
TITLE
FIGURE 4-BLDG. L HAZARDOUS WASTE SECONDARY CONTAINMENT

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DR. APPR	DATE
1" = 10'	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: 7422-WBDL-701

RAIL CAR CONTAINMENT PAN INSTALLATION PLAN SCALE: 3/16"=1'-0"

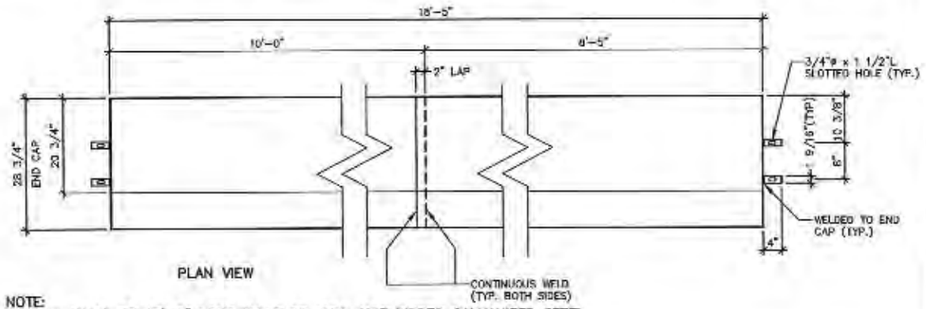


GENERAL NOTES

1.) UPON INSTALLATION ALL RAIL PANS TO BE GROUNDED AS REQ'D.

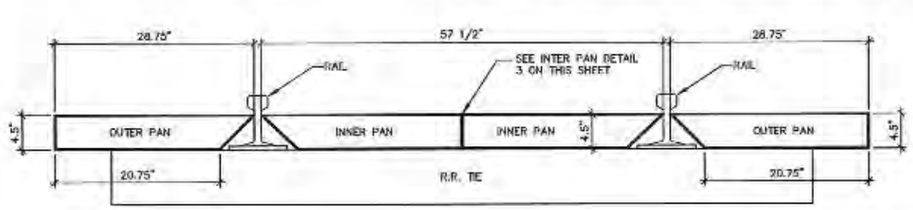
BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/6/22

RAIL CAR CONTAINMENT PAN PLAN – DETAIL 1 SCALE: 3/4"=1'-0"



NOTE:
PANS SHALL BE 18'-5" LONG MADE OF 11GA. HOT DIPPED GALVANIZED STEEL.

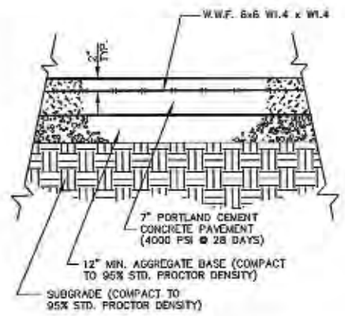
RAIL CAR CONTAINMENT PAN INSTALLATION ELEVATION – DETAIL 2 SCALE: NONE



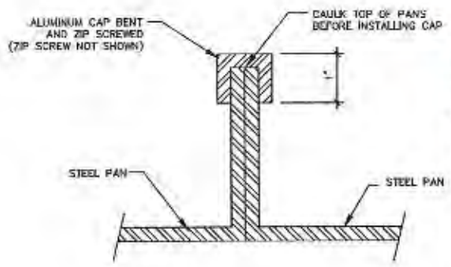
PAN CONTAINMENT CALCULATION

18'-5" X 20.75" X 4.5" X 7.48 GAL/CF = 89.3 GAL.
(.5)18'-5" X 8" X 4.5" X 7.48 GAL/CF = 17.2 GAL.
TOTAL CONTAINMENT FOR ONE PAN = 106.5 GALLONS.
TOTAL CONTAINMENT FOR FOUR PANS = 426 GALLONS.

ASPHALT PAVEMENT – DETAIL 3



INTER PAN CONNECTION – DETAIL 4 SCALE: NONE



REVISIONS

NO.	DESCRIPTION	BY	CHK	APP'R	DATE
A	RELEASED TO FF FOR BID	MBH	KJM	FF	112395
B	REVISED PER SWC AS BUILT	MBH	KJM	DDD	022597
C	REMOVED 2-ND RAIL CAR ADDED ASPHALT DETAIL	RDK	KJM	DDD	031497
D	CHANGED ASPHALT TO CONC. ADDED CONTAINMENT CALC.	MBH	KJM	DDD	032497
E	MADE GALVANIZED HOT DIPPED GALVANIZED	MBH	KJM	DDD	041497
F	REVISED CONTAINMENT CALC.	JEK	DDP	DDP	041315

PROPRIETARY STATEMENT

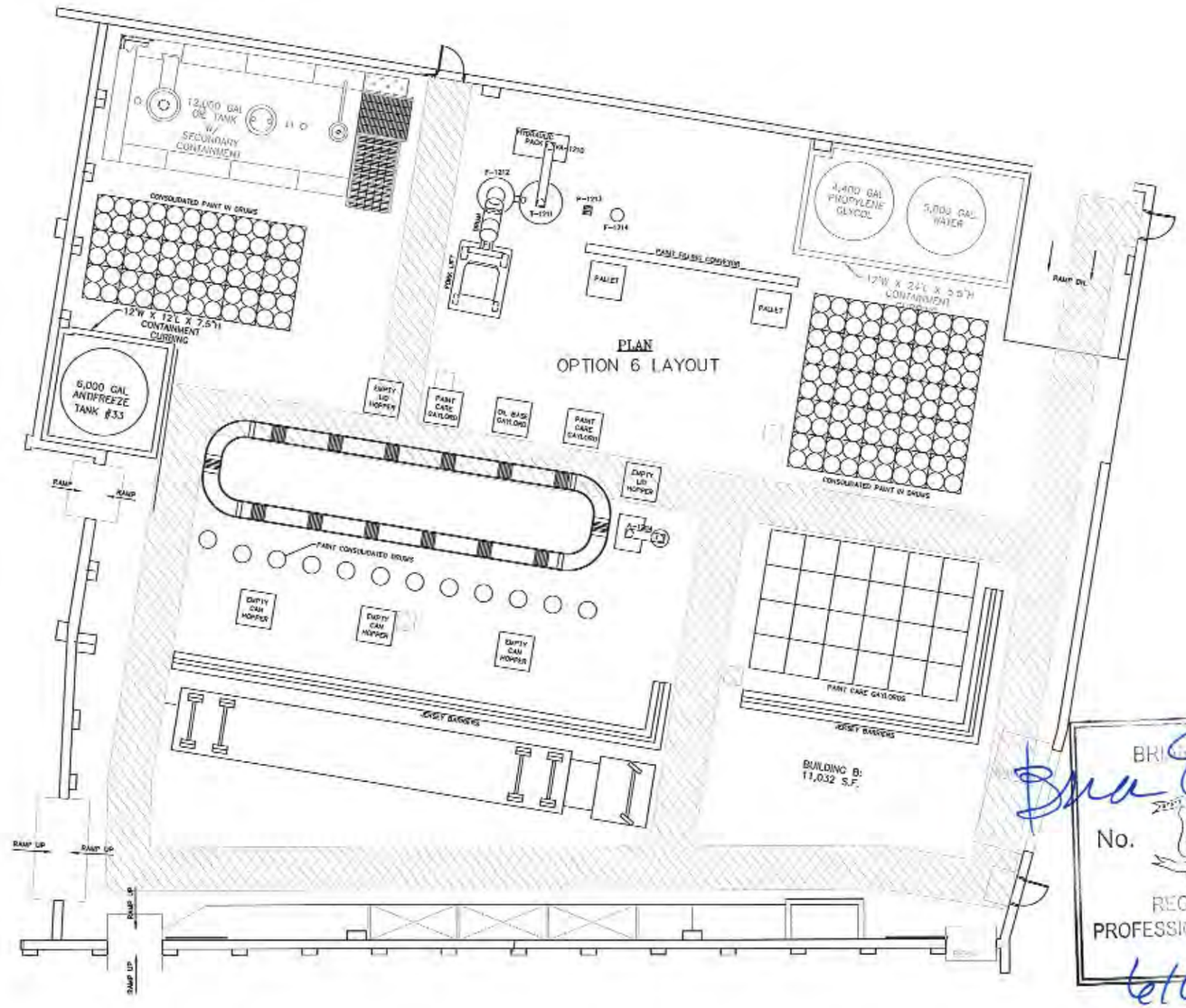
ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

TITLE
TYPICAL RAIL CAR CONTAINMENT PAN INSTALLATION DETAILS

Safety-Kleen Systems, Inc.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

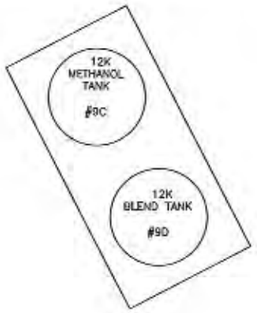
SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
AS SHOWN	MBH	KJM	DDD	–	06-10-95

SERVICE CENTER STANDARDS	STD-DWG NUMBER	REV
EQUIPMENT LAYOUT	BSD-200	F



PLAN
OPTION 6 LAYOUT

LEGEND



ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

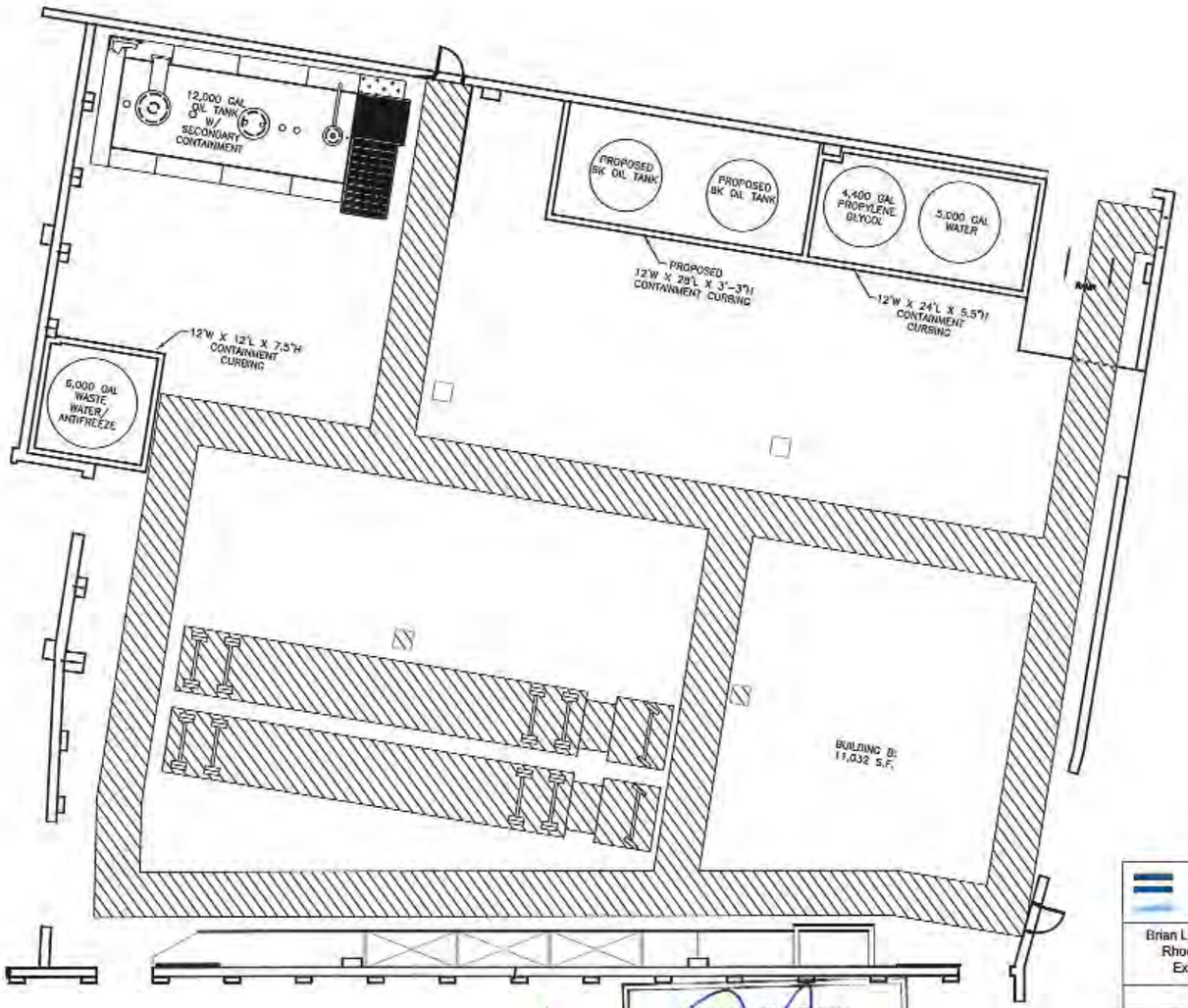
BRIAN C. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

MODIFIED LAST ON 12-8-17

CleanHarbors
ENVIRONMENTAL SERVICES
42 Longwater Drive
Norwell, Massachusetts 02061
Telephone (781) 792-5000

TITLE
WAREHOUSE B EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

6/6/22

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

TITLE
BUILDING B HAZARDOUS WASTE SECONDARY CONTAINMENT AREAS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DIR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.

STD-DWG-REV NO.: FIGURE 1

REFERENCES:

1) SEE RECORDED PLAN ENTITLED: "RIVERBANK INDUSTRIAL PARK A.P. 4/3 LOTS 2686, 2964 1107 MILL STREET CRANSTON, RI. PREPARED FOR: G.N.C. MANAGEMENT CORP.", DATED JULY 15, 2003, REVISED 11/17/03, PREPARED BY CROSSMAN ENGINEERING, INC. AND FILED AS PLAT 703 MAP 486.

LEGEND:

EXISTING EDGE OF PAVEMENT	
EXISTING CHAIN LINK FENCE	—X— X—
PROPOSED CHAIN LINK FENCE	—X—X—
EXISTING WATER GATE	WG
EXISTING HYDRANT	HYD.
FIRE INDICATOR VALVE	FIV.
SIAMESE FIRE DEPT. CONNECTION	FDC
EXISTING WATER VALVE	WV
EXISTING SANITARY SEWER CLEAN-OUT	S-CO
EXISTING GAS GATE	GG
EXISTING MONITORING WELL	MW
EXISTING CATCH BASIN	CB
EXISTING UTILITY POLE	UP
EXISTING OVERHEAD WIRES	OHW
EXISTING HAND HOLE	HH
EXISTING TREE LINE	
EXISTING BOLLARD	
EXISTING CONCRETE LOADING DOCK	LD
APPROXIMATE FLOOR ZONE LIMIT	
STORMWATER FLOW	

ZONING M-2

MINIMUMS:
- AREA 60,000 S.F.
- FRONTAGE 200 FT.

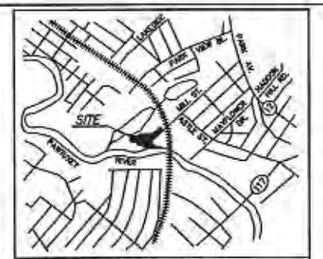
SETBACKS:
- FRONT 40 FT.
- SIDE 25 FT.
- REAR 30 FT.

MAXIMUMS:
- LOT COVERAGE 60%
- BUILDING HEIGHT 35 FT.

PER CRANSTON CITY CODE SEC. 30-17, SCHEDULE OF INTENSITY REGULATIONS

NOTES:

1) THIS PLAN IS BASED ON A GROUND SURVEY PERFORMED BETWEEN NOVEMBER 28, 2007 AND DECEMBER 4, 2007
2) THE UTILITIES HEREON ARE SHOWN FROM FIELD LOCATIONS OF SURFACE STRUCTURE AND MAY NOT REFLECT ALL UTILITIES ON THE SUBJECT PARCEL. CONTACT DIG-SAFE PRIOR TO ANY EXCAVATION.
3) THE FLOOD ZONE LINE WAS SCALED FROM THE FEMA FLOOD INSURANCE RATE MAP AND NOT A PRODUCT OF A FLOOD PLAIN DETERMINATION SURVEY. THE PARCEL LIES PARTLY IN ZONE AE, AND PARTLY IN ZONE B, AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 445396 0007 B, MAP REVISED NOV. 1, 1984.
4) THERE IS NO VISIBLE EVIDENCE OF ANY RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR ADDITIONS, AS OF THE DATE OF THIS PLAN.
5) THERE ARE NO KNOWN EXISTING OR PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES. THERE IS NO VISIBLE EVIDENCE OF ANY RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
6) THERE IS NO VISIBLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.



A.P. 4-3 LOT 2706
AREA = 174,490± S.F.
4.01± ACRES
(BEING LOT 1 ON REFERENCE #1)

EXISTING BUILDING
1 STORY
BRICK/CONCRETE

EXISTING CONTAINMENT AREA, SEE DWG 6000-800

EXISTING TANK FARM

EXISTING FUEL OIL TANK FARM

EXISTING TRUCK PAD

20' WIDE SEWER EASEMENT "A" (SEE REFERENCE #1)

20' WIDE SEWER EASEMENT "B" (SEE REFERENCE #1)

20' WIDE SEWER EASEMENT "C" (SEE REFERENCE #1)

30' WIDE ACCESS EASEMENT W/ TRACK USE & MAINTENANCE AGREEMENT DB 2491 PG. 192-194

SEE BUILDING ENCROACHMENT AGREEMENT, DB 2027 PG. 87

EXISTING CHAIN LINK FENCE

PROPOSED 3' MAN GATE

15' SWING ENTRANCE GATE

25' SLIDING ENTRANCE GATE

3' PERSONNEL GATE

11' MANUAL SWING GATE

15' POWER SWING GATE

POWER GATE OPERATOR

KEYPAD INTERCOM DOORSWITCH

15' DBL. SWING GATE (RELOCATED FROM TANKER PAD)

RAIL SWITCH

MILL STREET (PUBLIC - 50' WIDE)

PAWTUXET RIVER

12" PIPE OUTLET (STORMWATERS OUTFALL)

PROPERTY LINE IS THE WESTERLY BANK OF THE PAWTUXET RIVER

NON CONTACT COOLING WATER OUTFALL

3" PVC OUTLET

12" PIPE OUTLET

TIE LINE ONLY
207.55'
S 48°38'20" W

BUILDING HEIGHT 38.5'±

A.P. 4-3 LOT 1107
N/F CIBA SPECIALTY CHEMICALS CORP.

A.P. 4-3 LOT 2696
N/F PATRICK T. CONLEY

A.P. 4-3 LOT 1107
N/F GNC MANAGEMENT CORP.

BEARINGS ARE BASED ON PLAT 703, MAP 486

0 15 60
7.5 30 90

NO.	DESCRIPTION	BY	CHK	APPR	DATE
F	UPDATED FOR PART B PERMIT	JEK	JL	JL	052620
E	ADD PROPOSED OFFICE ADDITION	JEK	DDP	DDP	040115
D	ADD RAIL SPUR	JEK	DDP	DDP	121714
C	REVISE FENCING/GATES/NOTES	JEK	DDP	DDP	071712
B	ADD PROPOSED ROLL OFF PAD	JEK	DDP	DDP	060812
A	ADD PROPOSED GATES/FENCE	JEK	DDP	DDP	091609
0	NEW ISSUE	JEK	DDP	DDP	090909

REVISIONS

Brian Lewis, PE
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

GENERAL NOTES

TITLE: SITE MONITORING WELL LOCATIONS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-0740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1" = 30'-0"	PSC	JEK	DDP	DDP	9/09/09

SERVICE CENTER LOCATION	SC-DWG. NO.	REV. NO.
CRANSTON, RI.	FIGURE 14.1	E

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

PROPRIETARY STATEMENT

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B PERMIT	JEK	JL	JL	050620
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	NEW ISSUE	JEK	GC	GC	063710

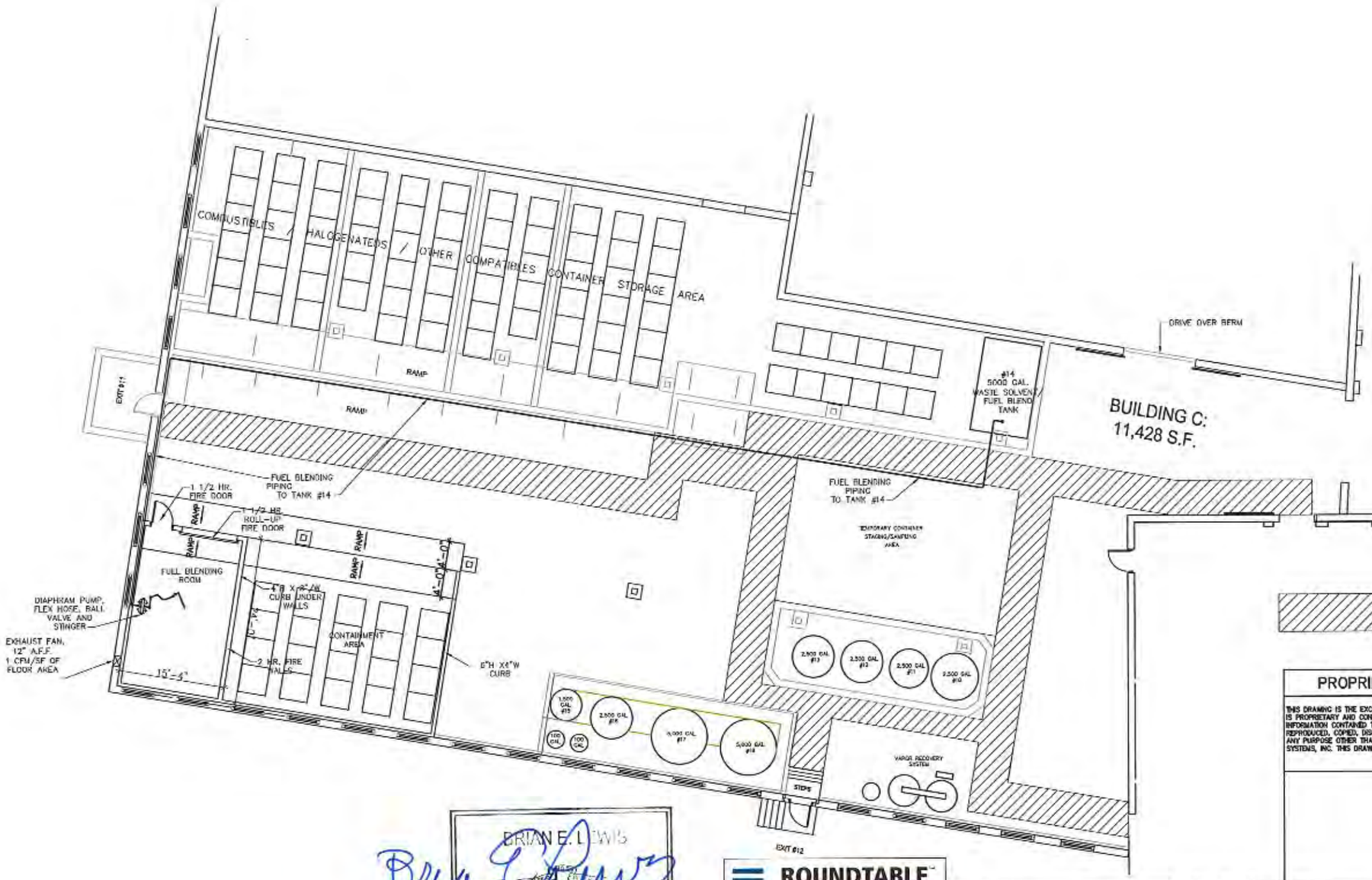
REVISIONS

TITLE:
BUILDING C HAZARDOUS WASTE SECONDARY CONTAINMENT

SAFETY-KLEEN SYSTEMS, INC.
2000 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DIR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	6/7/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: FIGURE 2



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

6/6/22

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

PROPRIETARY STATEMENT

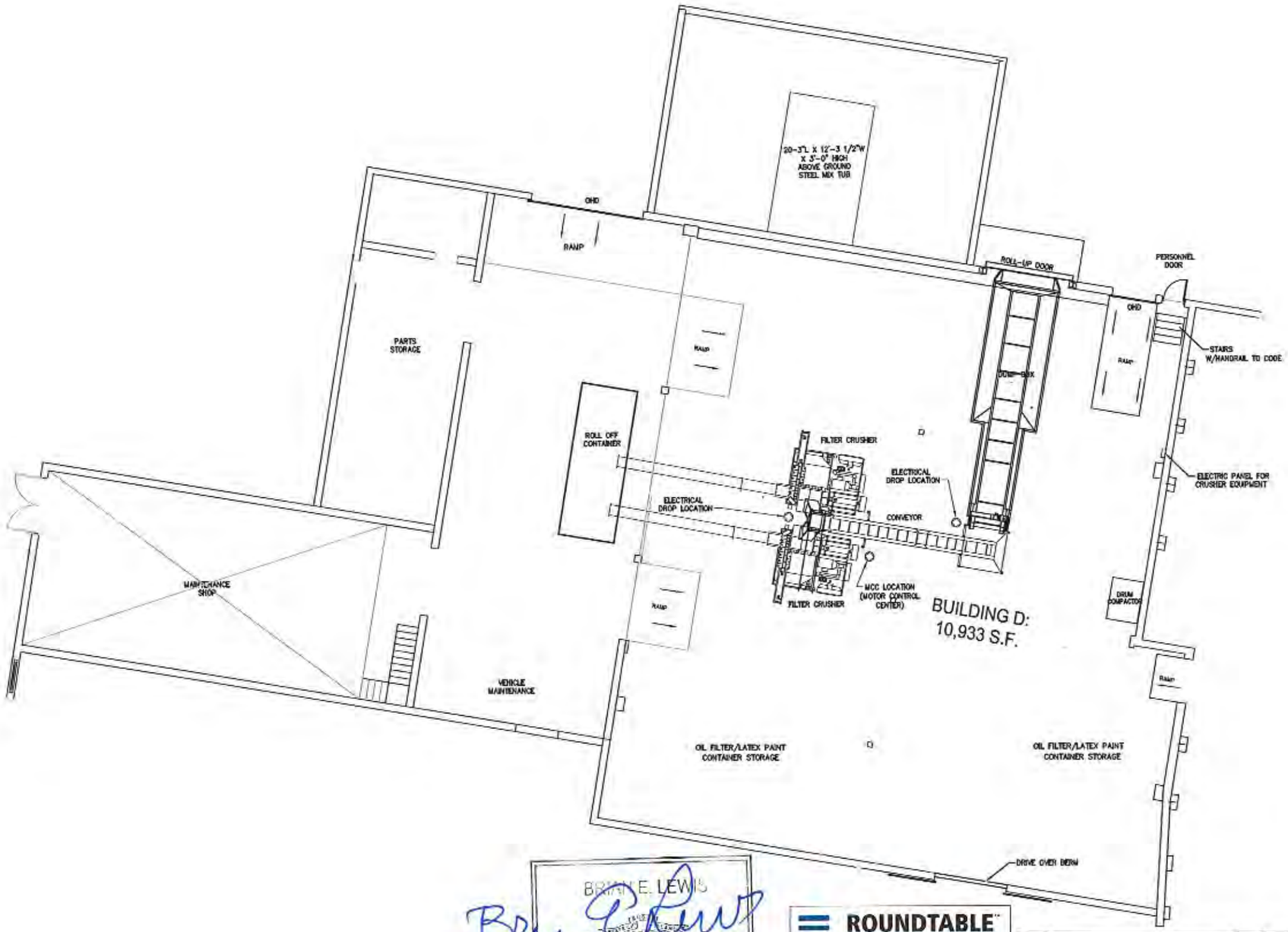
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	UPDATED FOR PART B PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	NEW ISSUE	JEK	GC	GC	060710

TITLE
EXISTING WAREHOUSE C
FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	6/7/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: FIGURE 2.5



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE, AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

PROPRIETARY STATEMENT

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

6/6/23

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

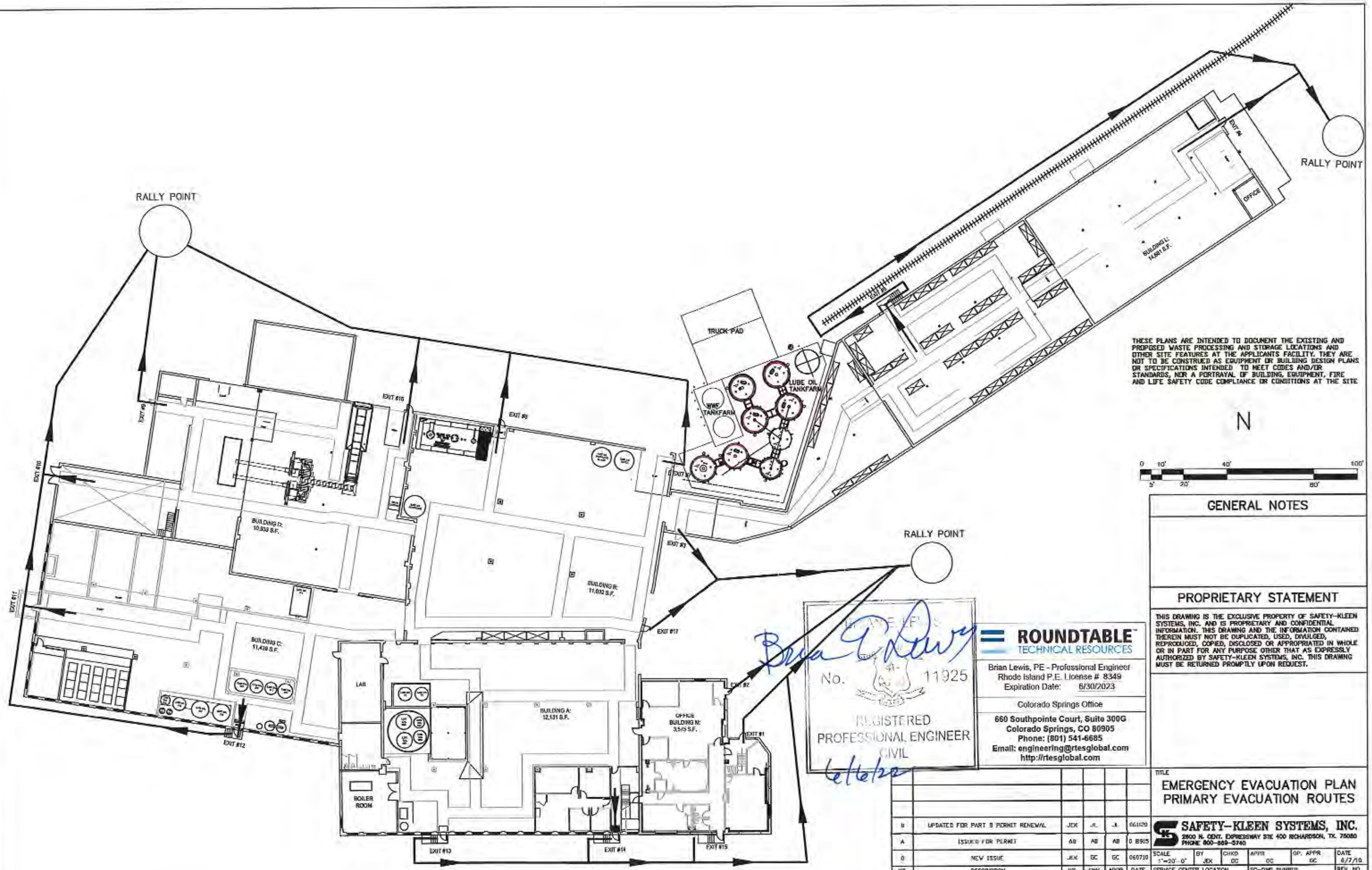
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	GC	GC	GC	032210

TITLE: BUILDING D EXISTING HAZARDOUS WASTE SECONDARY CONTAINMENT AREAS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: FIGURE 3



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

GENERAL NOTES

PROPRIETARY STATEMENT

STATE OF
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B PERMIT RENEWAL	JDK	JL	JL	051123
A	ISSUED FOR PERMIT	AB	AB	AB	B 8915
0	NEW ISSUE	JEK	GC	GC	060710

REVISIONS

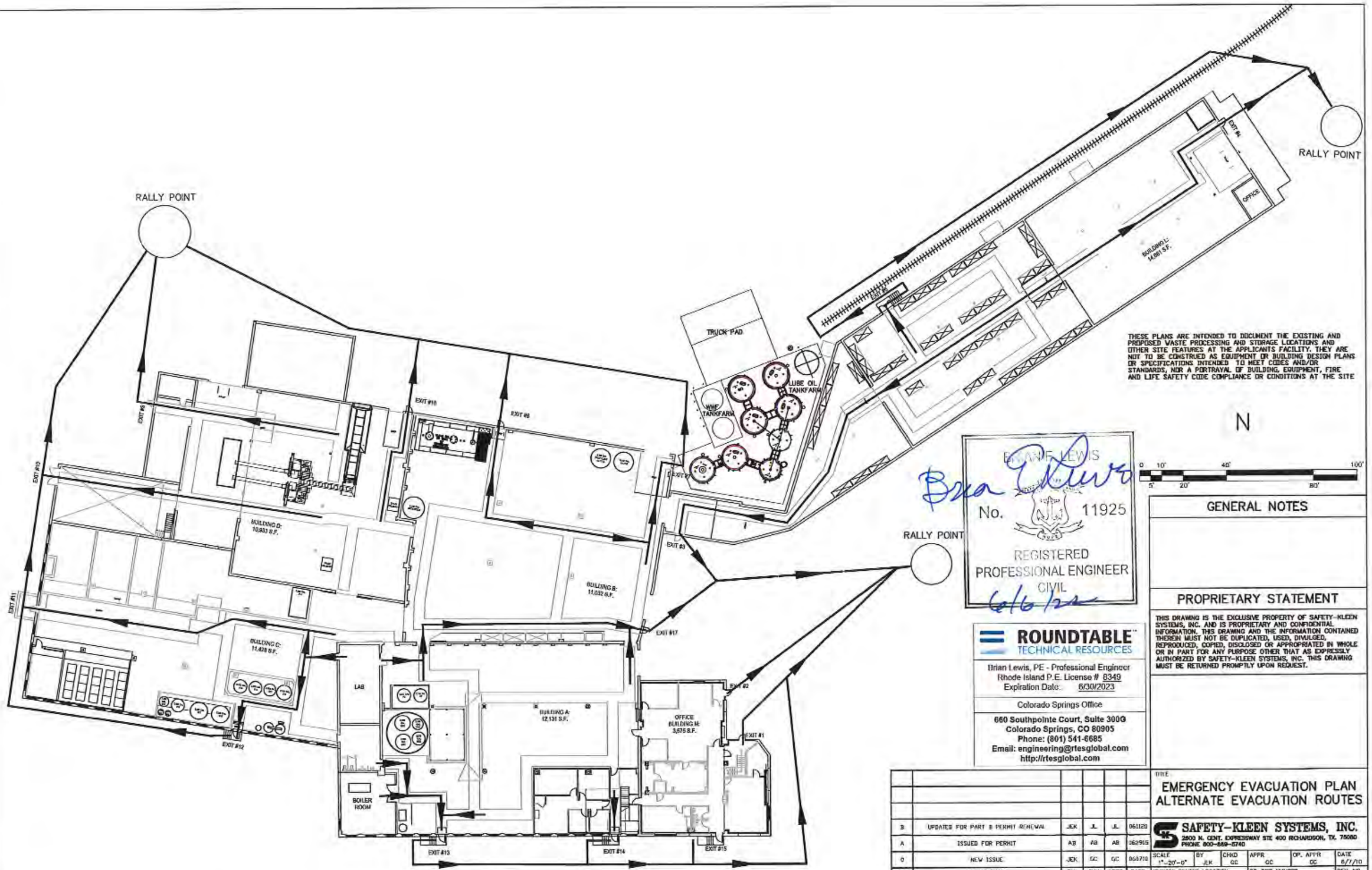
TITLE
EMERGENCY EVACUATION PLAN
PRIMARY EVACUATION ROUTES

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPR	GP. APPR	DATE
1"=20'-0"	JEK	GC	GC	GC	6/7/10

SERVICE CENTER LOCATION: CRANSTON, R.I.
SC-DWG NUMBER: FIGURE 9.5
REV. NO.: B

XXXXXX



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

GENERAL NOTES

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATES FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062905
0	NEW ISSUE	JEK	GC	GC	060710

REVISIONS

TITLE
EMERGENCY EVACUATION PLAN ALTERNATE EVACUATION ROUTES

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPR	OP. APPR	DATE
1"=20'-0"	JEK	GC	GC	GC	6/7/10

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	FIGURE 9.6	B

XXXXXX

SAFETY–KLEEN SYSTEMS, INC.

167 MILL STREET, CRANSTON, RHODE ISLAND

HAZARDOUS STORAGE AND RECYCLING FACILITY

MAY 2021

DRAWING INDEX

DRAWING NO.	DESCRIPTION
7422-SP00-006	1000 FOOT RADIUS MAP
7422-SP00-007	1000 FOOT RADIUS LAND USE MAP
7422-SP00-008	500 FOOT RADIUS MAP
7422-SP00-009	SITE MONITORING WELL LOCATIONS
7422-SP00-010	S-K FACILITY LAYOUT PLAN
7422-SP00-013-3	EXISTING SITE PLAN
7422-SP00-021	PROPOSED SITE PLAN
7422-WB0A-701	BLDG. A EXISTING FLOOR PLAN
7422-WB0B-049	BLDG. B AREA CONTAINMENT CALCULATIONS
7422-WB0B-702	BLDG. B EXISTING FLOOR PLAN
7422-WB0C-701	BLDG. C EXISTING FLOOR PLAN
7422-WB0D-049	BLDG. D AREA CONTAINMENT CALCULATIONS
7422-WB0D-707	BLDG. D PROPOSED FLOOR PLAN
7422-WB0L-701	BLDG. L EXISTING FLOOR PLAN
7422-RL01-300	EXISTING USED OIL PIPING PLAN
7422-RL01-900	EXISTING RAIL CAR OIL SWIVEL BOOM
7422-9900-500	EXISTING ASPHALT CONTAINMENT BERM SECTIONS & DETAILS

PLAN NO.	DESCRIPTION
1	COVER SHEET AND DRAWING INDEX
2	1000 FOOT RADIUS MAP
3	1000 FOOT RADIUS LAND USE MAP
4	500 FOOT RADIUS MAP
5	S-K FACILITY LAYOUT PLAN
6	BUILDING C EXISTING
7	BUILDING C EXISTING PROCESS FLOW DIAGRAM
8	BUILDING A EXISTING FLOOR PLAN
9	BUILDING B EXISTING FLOOR PLAN
10	BULIDING C EXISTING FLOOR PLAN
11	BUILDING D EXISTING FLOOR PLAN
12	BUILDING C EXISTING PROCESS FLOW DIAGRAM
13	BUILDINGS D & D PROPOSED PROCESS FLOW DIAGRAM
14	BUILDINGS B EXISTING FLOOR PLAN
15	BUILDING D EXISTING FLOOR PLAN
GW1	EXISTING SITE MONITORING WELL LOCATIONS

FIGURE NO.	DESCRIPTION
1	BUILDING B HAZARDOUS WASTE SECONDARY CONTAINMENT
2	BUILDING C HAZARDOUS WASTE SECONDARY CONTAINMENT
2.5	BUILDING C EXISTING FLOOR PLAN
3	BUILDING D HAZARDOUS WASTE SECONDARY CONTAINMENT
4.1	AREA TRAFFIC PATTERNS
9.5	EVACUATION PLAN
9.6	ALTERNATE EVACUATION PLAN
14.1	EXISTING SITE MONITORING WELL LOCATIONS

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/6/22

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

ROUNDTABLE™ TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
C	REVISED FOR PART B PERMIT	JEK	JL	JL	052521
B	REVISED FOR PART B PERMIT	JEK	JL	JL	061120
A	REVISED FOR PERMIT	JEK	AB	AB	062915
0	NEW ISSUE	JEK	GC	GC	062110

REVISIONS

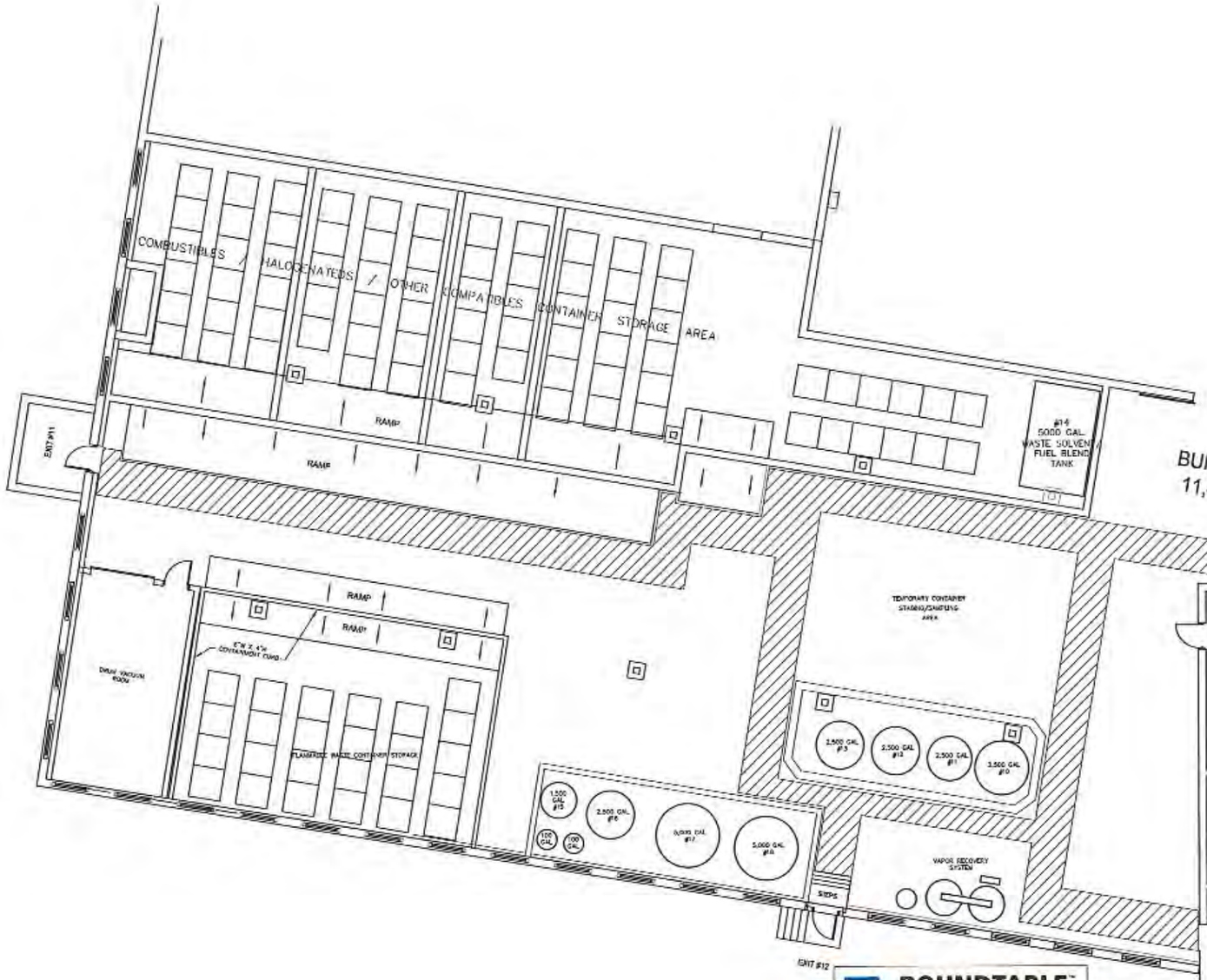
TITLE: COVER SHEET AND DRAWING INDEX

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DIV. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	6/17/10

BRANCH LOCATION: CRANSTON, R.I.

STD-DVG-REV NO.: PLAN 1



N

0' 3' 10'
1" 8" 15"

BUILDING C:
11,428 S.F.

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
6/6/22

TRAVEL PATHS

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

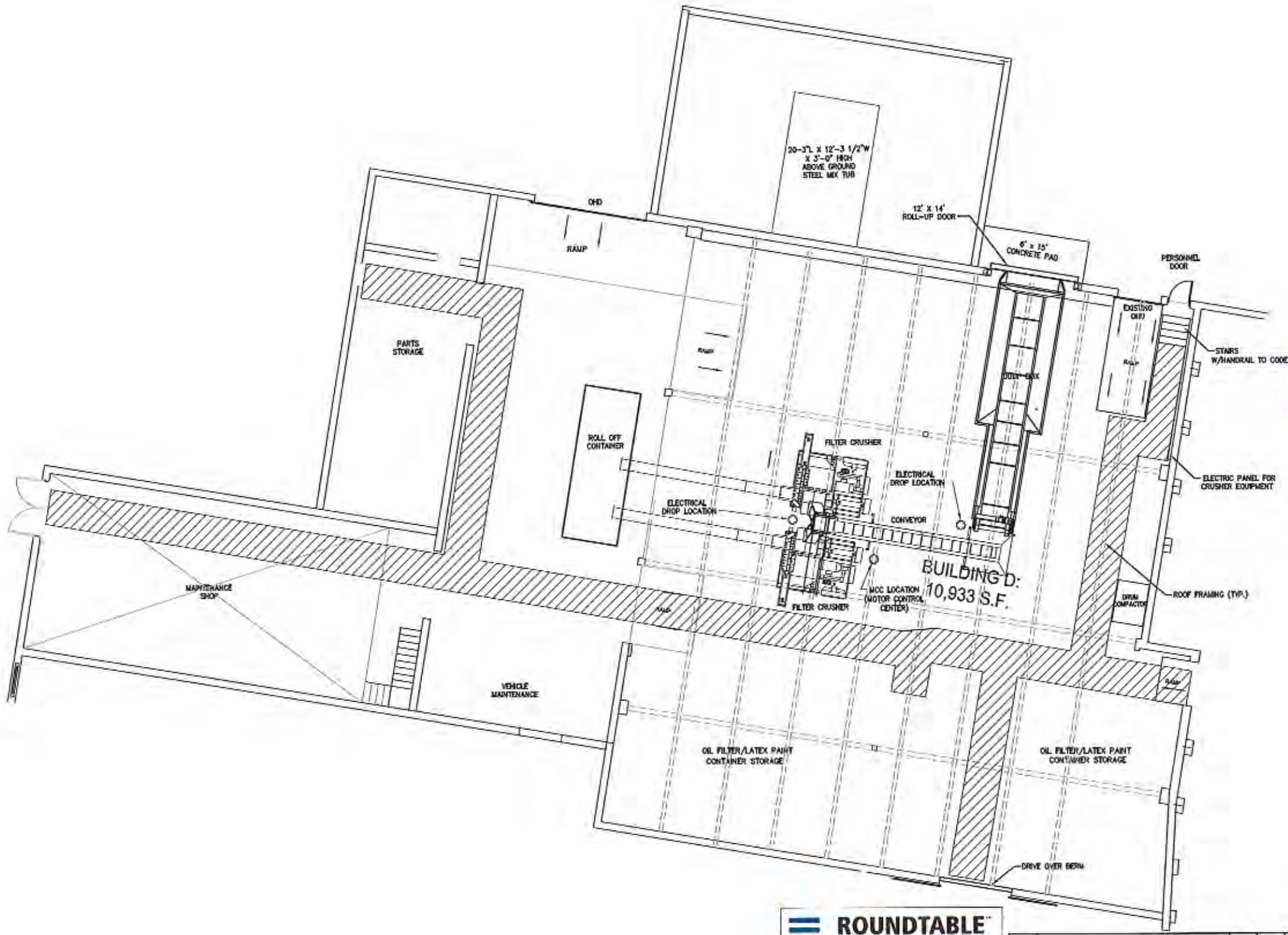
REVISIONS

TITLE
BUILDING C EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DIR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/18

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 10



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/16/23

TRAVEL PATHS

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

ROUNDTABLE™ TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

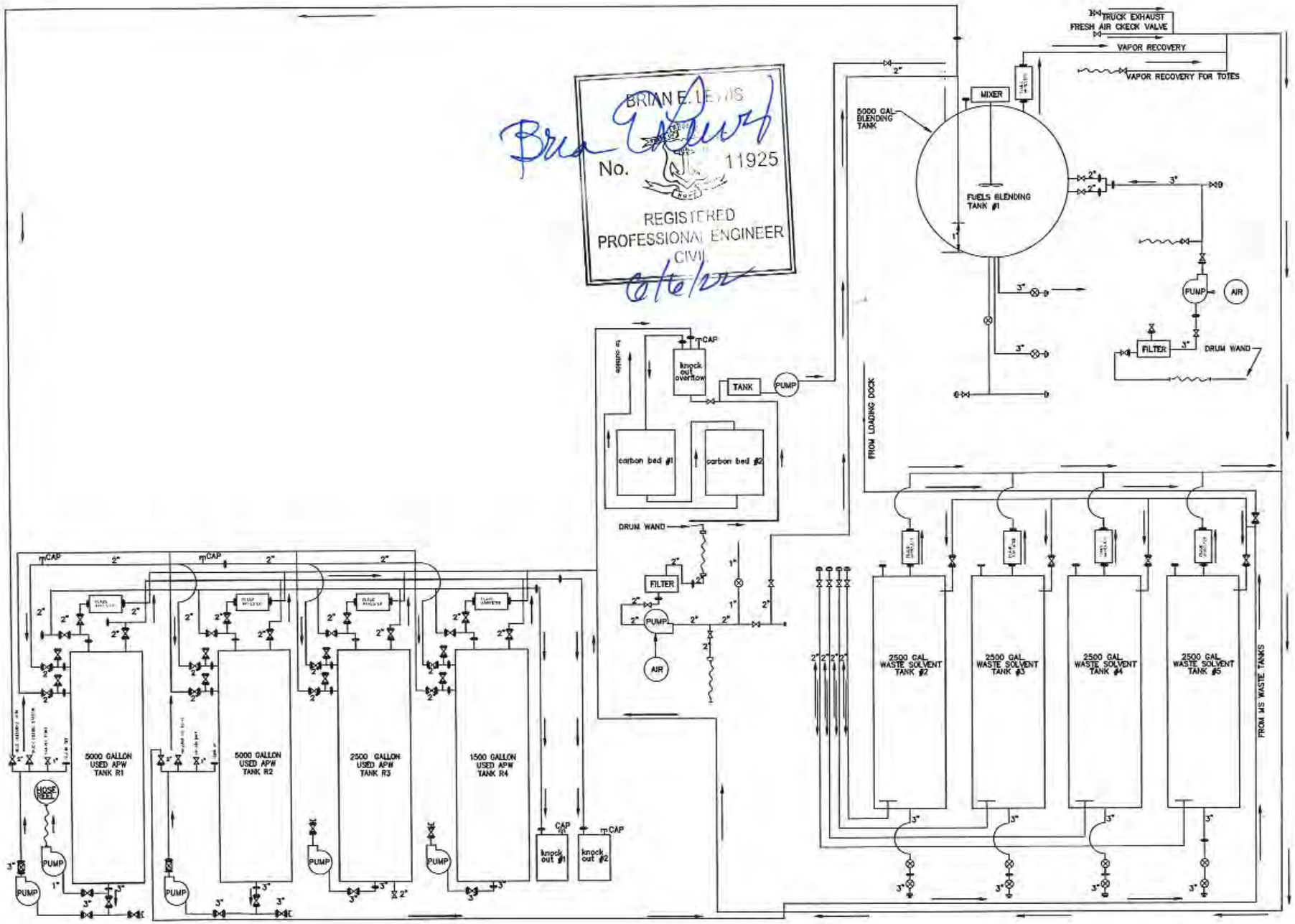
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

TITLE
EXISTING WAREHOUSE D FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 11



LEGEND:

- HOSE CONNECTION CAPPED
- GATE VALVE
- BALL VALVE
- HOSE CONNECTION
- PIPE END CAP
- FLANGE
- HOSE
- SIGHT GLASS

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL
6/6/22

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

B	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061510
NO.	DESCRIPTION	BY	CHK	APPR	DATE

REVISIONS

PROPRIETARY STATEMENT

TITLE

BUILDING C EXISTING PROCESS FLOW DIAGRAM

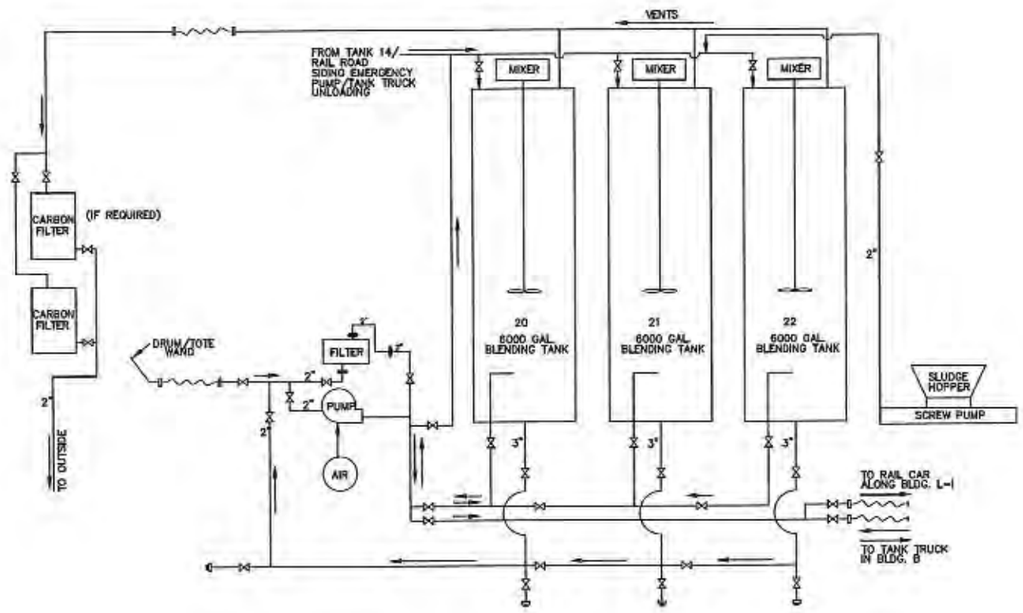
SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

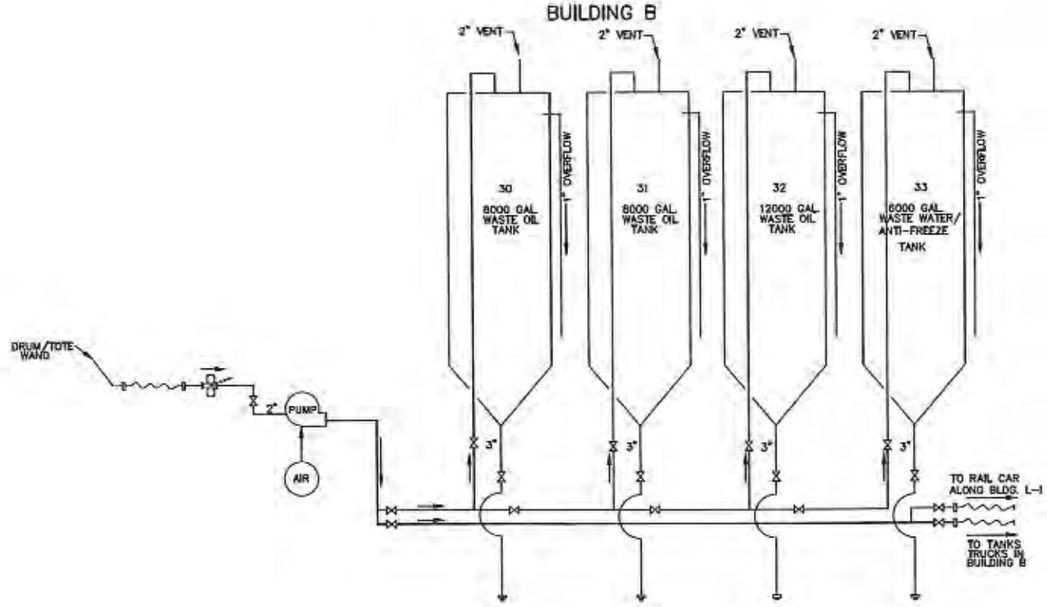
BRANCH LOCATION: CRANSTON, R.I.

STD-DWG-REV NO.: PLAN 12

BUILDING D



BUILDING B



LEGEND:

- GATE VALVE
- BALL VALVE
- HOSE CONNECTION
- HOSE CONNECTION CAPPED
- PIPE END CAP
- FLANGE
- HOSE
- FILTER BASKET

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	ISSUED FOR PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061510

REVISIONS

PROPRIETARY STATEMENT

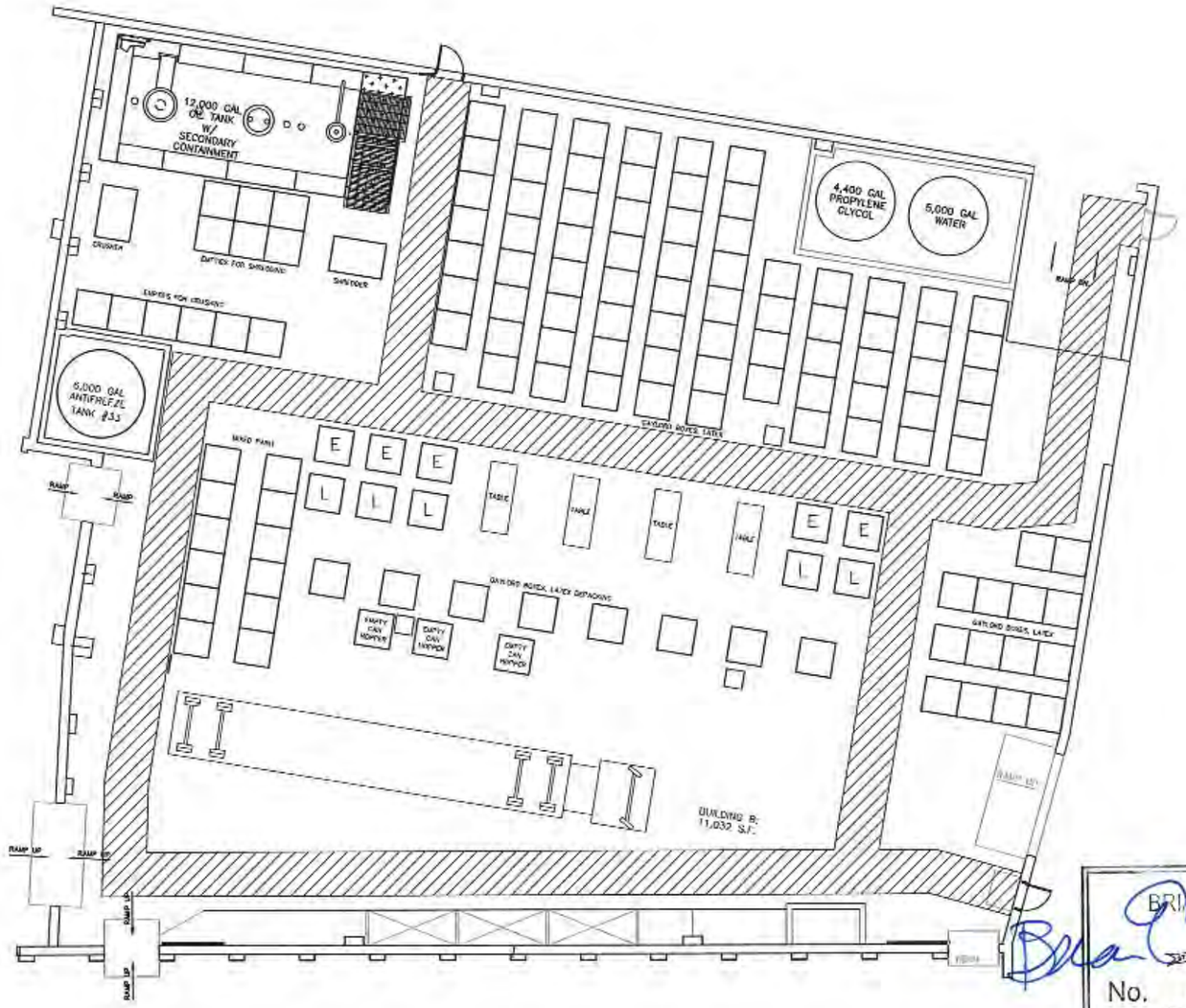
BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

TITLE
BUILDINGS B & D PROPOSED PROCESS FLOW DIAGRAM

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 13



N

0' 3' 10'

1" 6" 15"

E BINS WITH EMPTY PAINT CANS

L LATEX PAINT TOTES

TRAVEL PATHS

BRIAN E. LEWIS

No. 11925

REGISTERED PROFESSIONAL ENGINEER

CIVIL

6/6/23

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
D	UPDATED FOR PART B RENEWAL	JEK	JL	JL	052521
C	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061120
B	ISSUED FOR PERMIT	JEK	JL	JL	071217
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

PROPRIETARY STATEMENT

TITLE

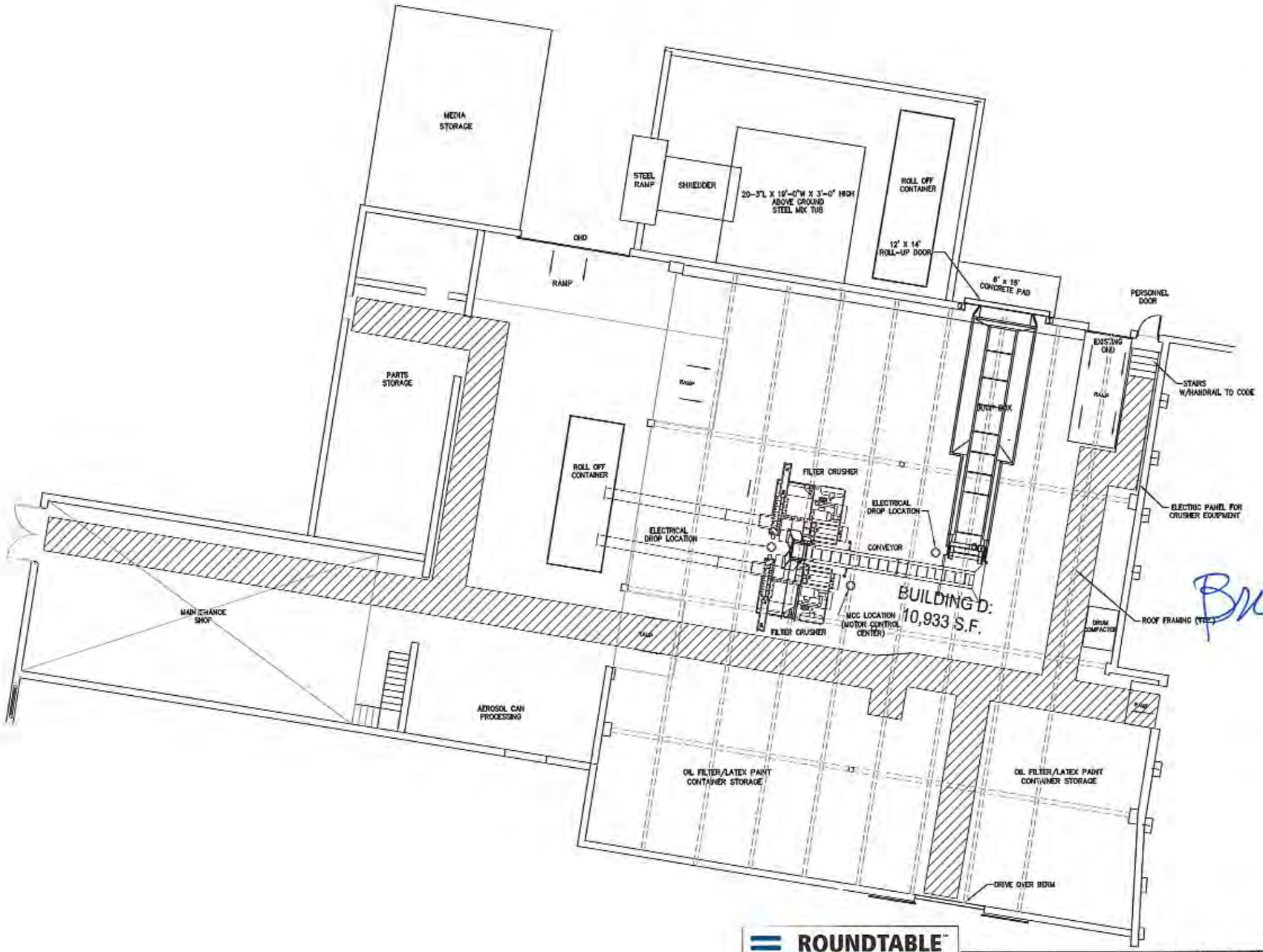
EXISTING WAREHOUSE B FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2800 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHK'D	P.E. APPR	DIR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/18

BRANCH LOCATION: CRANSTON, R.I.

STD-DWG-REV NO.: PLAN 14



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

6/6/22

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

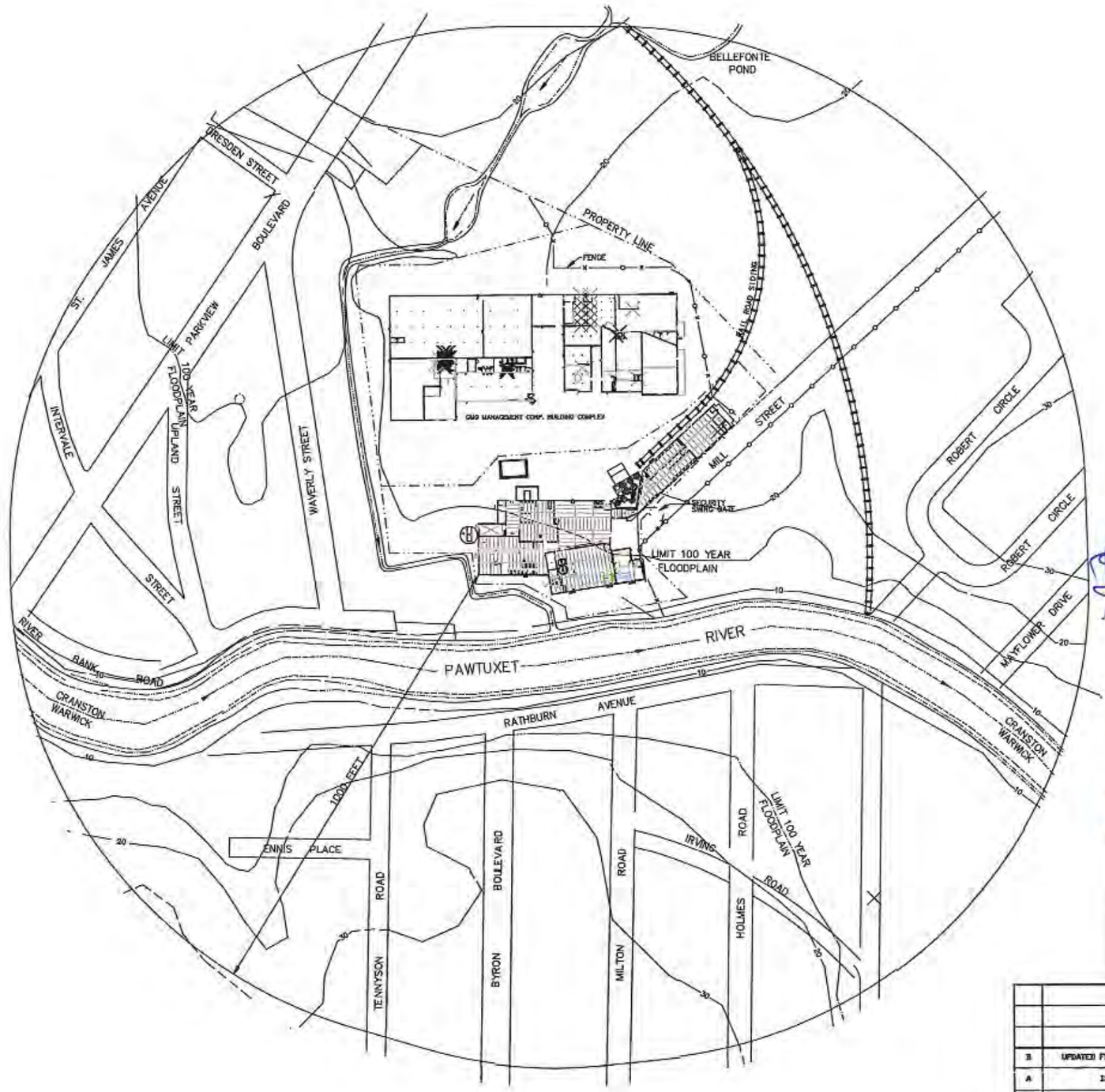
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
C	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	052521
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	052720
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

TITLE
PROPOSED WAREHOUSE D FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 15



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6/6/22

GENERAL NOTES

1. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
2. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS; BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
3. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS; BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

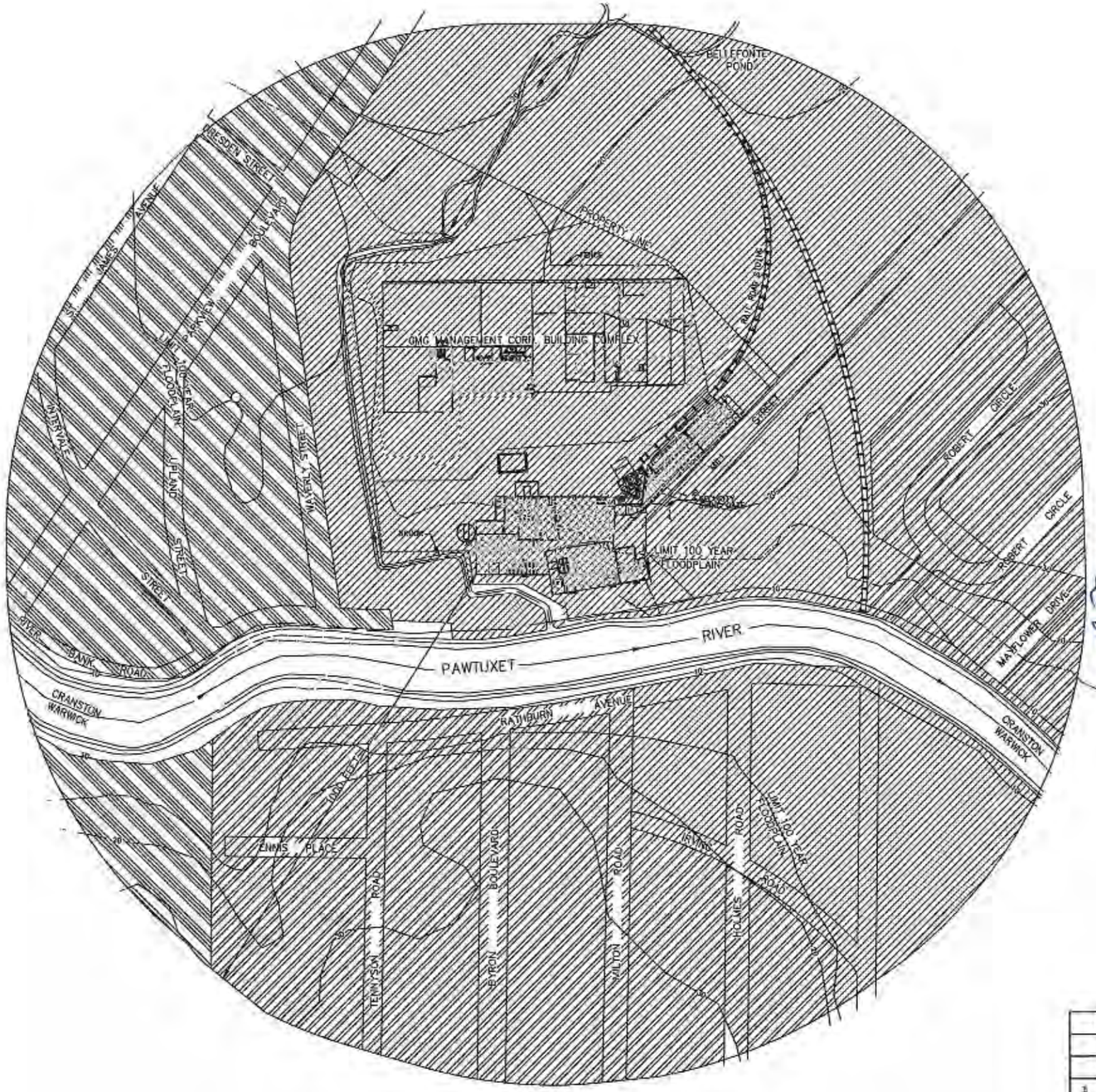
NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	QC	QC	061710

TITLE
1000 FT. RADIUS MAP

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-8740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=125'	JEK	QC	QC		6/17/10

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	PLAN 2	B



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

LEGEND:

- INDUSTRIAL
- RESIDENTIAL
- VACANT LAND

BRIAN D. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

GENERAL NOTES

1. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
2. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
3. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS; BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO	DESCRIPTION	BY	CHK	APPR	DATE
3	UPDATED DRAFT PERMIT REV 4	JEK	JL	JL	06/20
4	ISSUED FOR PERMIT	AB	AB	AB	06/21
5	ISSUED FOR REVIEW	JEK	QC	QC	05/21

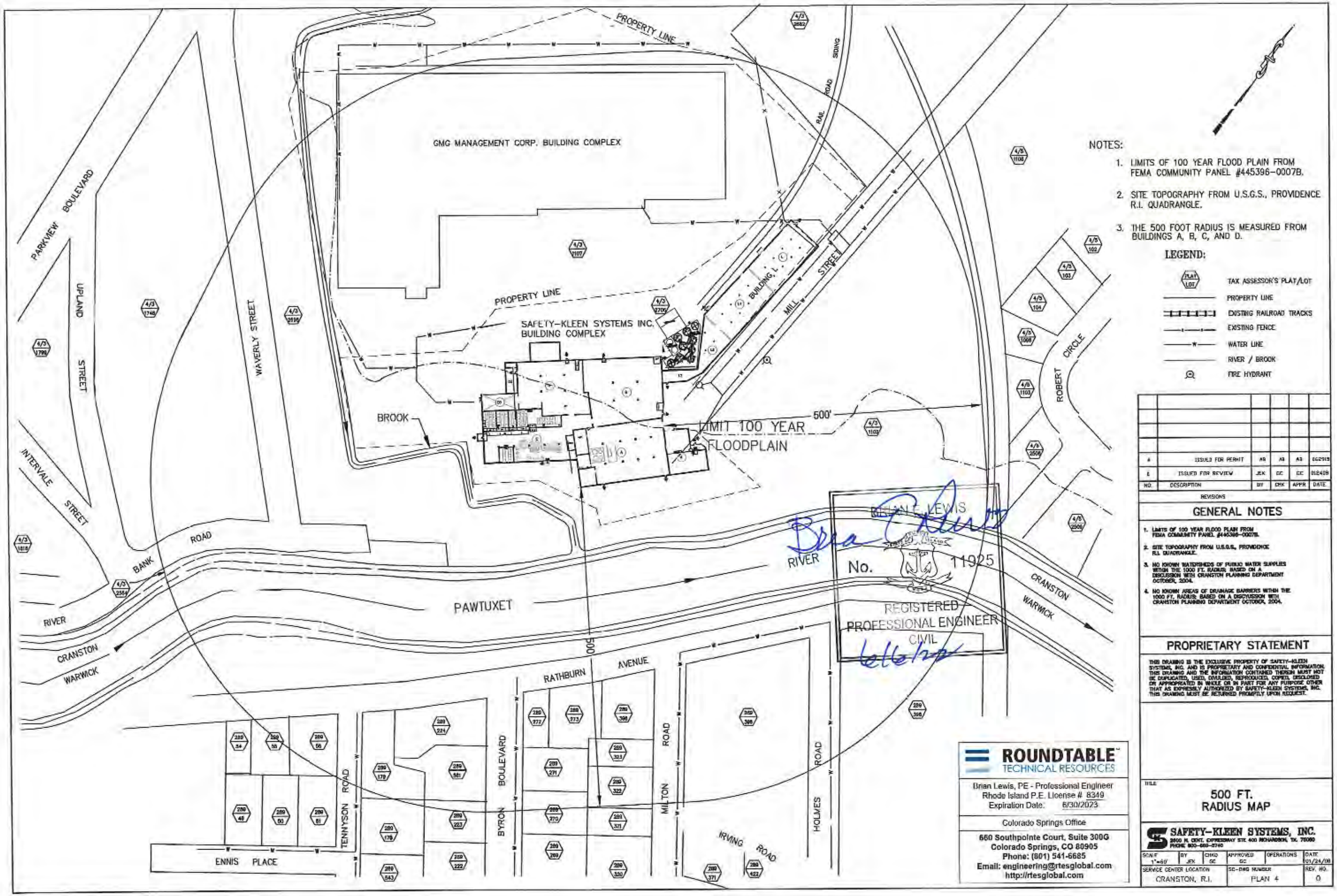
REVISIONS

TITLE: 1000 FT. RADIUS LAND USE MAP

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=125'	JEK	QC	QC		5/17/16

SERVICE CENTER LOCATION: CRANSTON, R.I.
SK-DWG NUMBER: PLAN 3
REV. NO: 5



NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
A	ISSUED FOR PERMIT	AS	AS	AS	062915
B	ISSUED FOR REVIEW	JEK	GC	GC	012409

GENERAL NOTES

1. LIMITS OF 100 YEAR FLOOD PLAIN FROM FEMA COMMUNITY PANEL #445396-0007B.
2. SITE TOPOGRAPHY FROM U.S.G.S., PROVIDENCE R.I. QUADRANGLE.
3. NO KNOWN WATERSHEDS OF PUBLIC WATER SUPPLIES WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.
4. NO KNOWN AREAS OF DRAINAGE BARRIERS WITHIN THE 1000 FT. RADIUS, BASED ON A DISCUSSION WITH CRANSTON PLANNING DEPARTMENT OCTOBER, 2004.

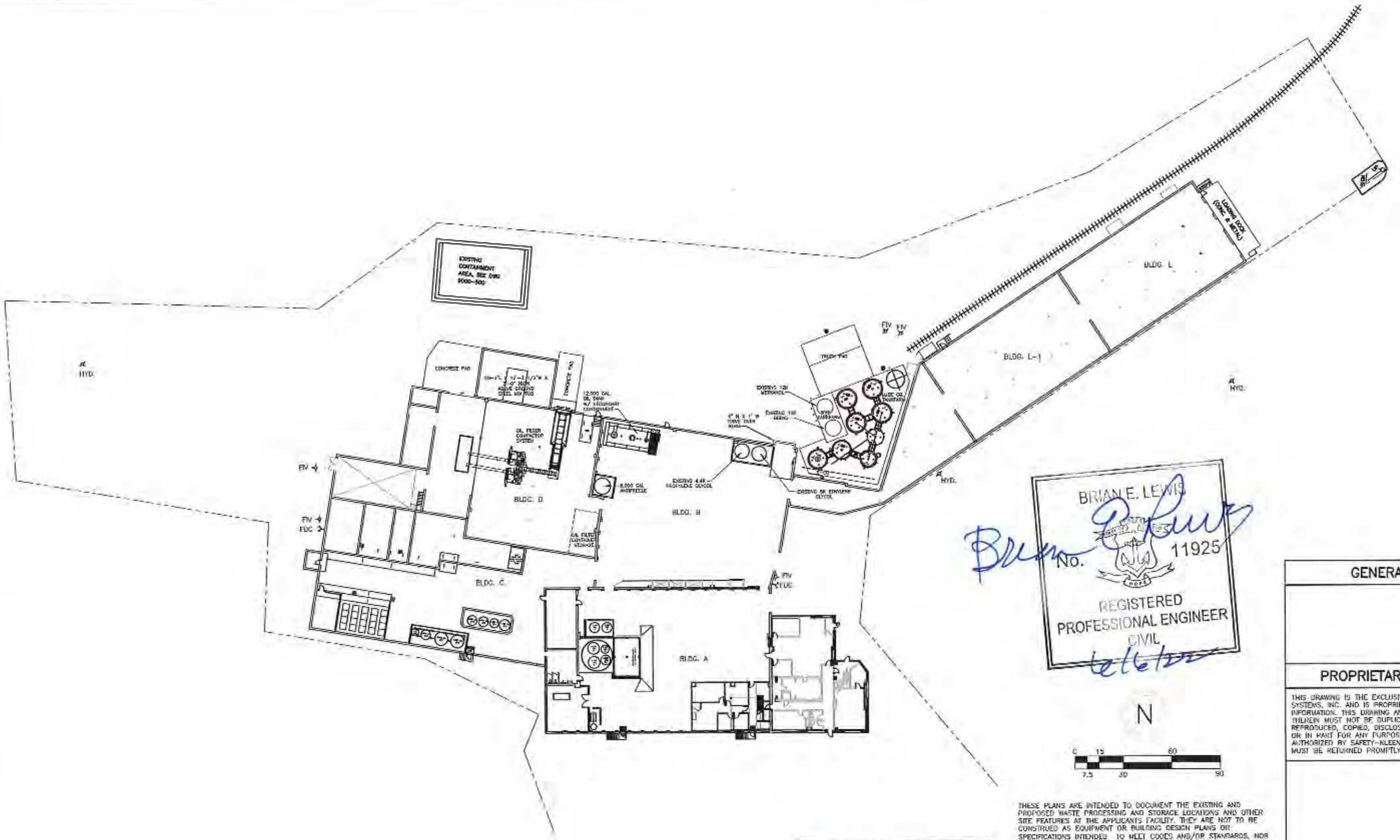
PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

TITLE
500 FT. RADIUS MAP

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE. 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1"=60'	JEK	GC	GC		01/24/08
SERVICE CENTER LOCATION			SC-DWG NUMBER		REV. NO.
CRANSTON, R.I.			PLAN 4		0



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE.

GENERAL NOTES

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				
B	UPDATED FOR PART B PERMIT RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062815
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

TITLE: FACILITY LAYOUT PLAN

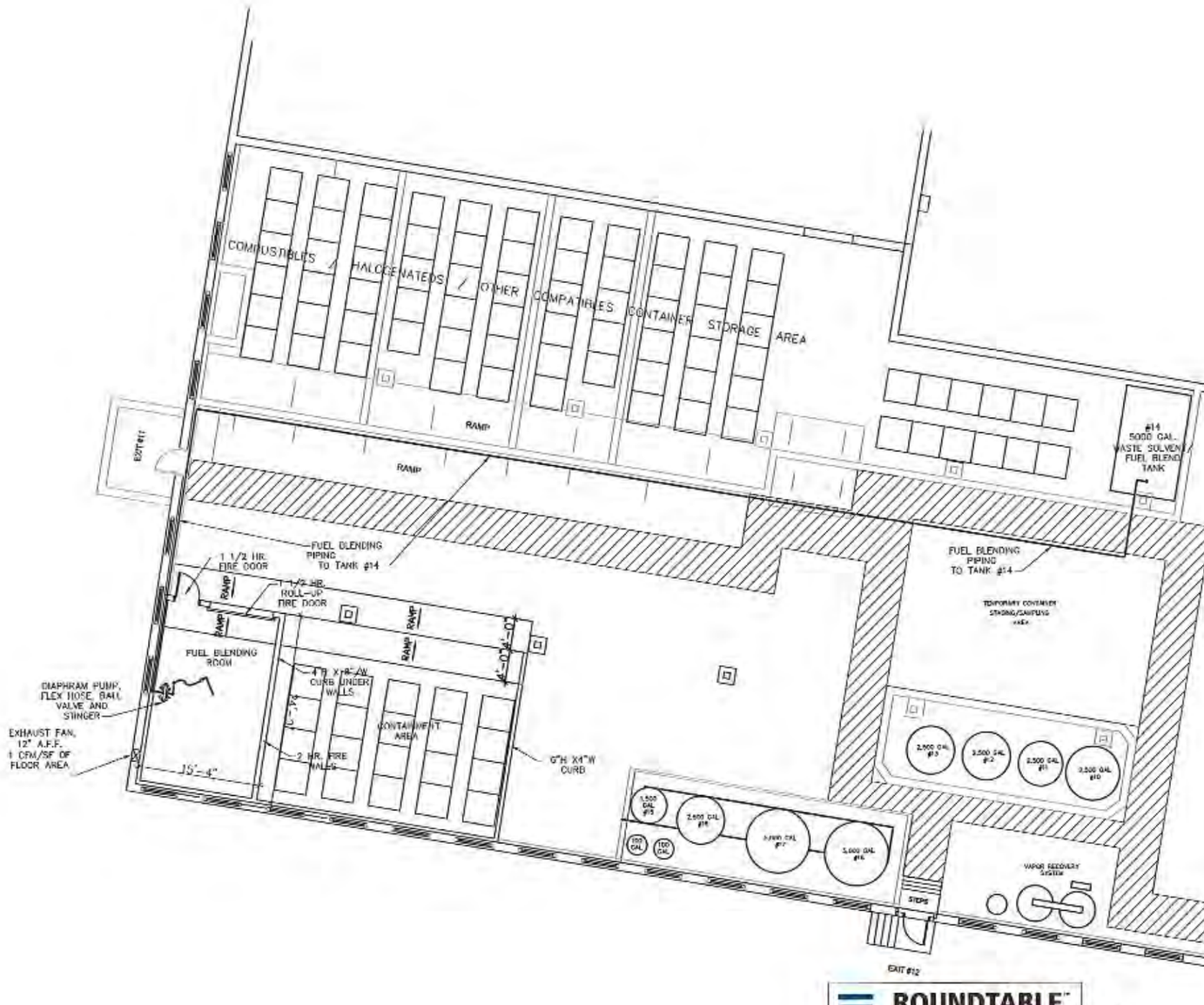
SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPR	OP. APPR	DATE
1"=30'-0"	JEK	GC	GC	GC	5/2/10

SERVICE CENTER LOCATION	SC-DWG NUMBER	REV. NO.
CRANSTON, R.I.	PLAN 5	B

N

0' 3' 10'
1" 6" 15"



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

Brian E Lewis
6/6/22

TRAVEL PATHS

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

PROPRIETARY STATEMENT

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B PERMIT	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

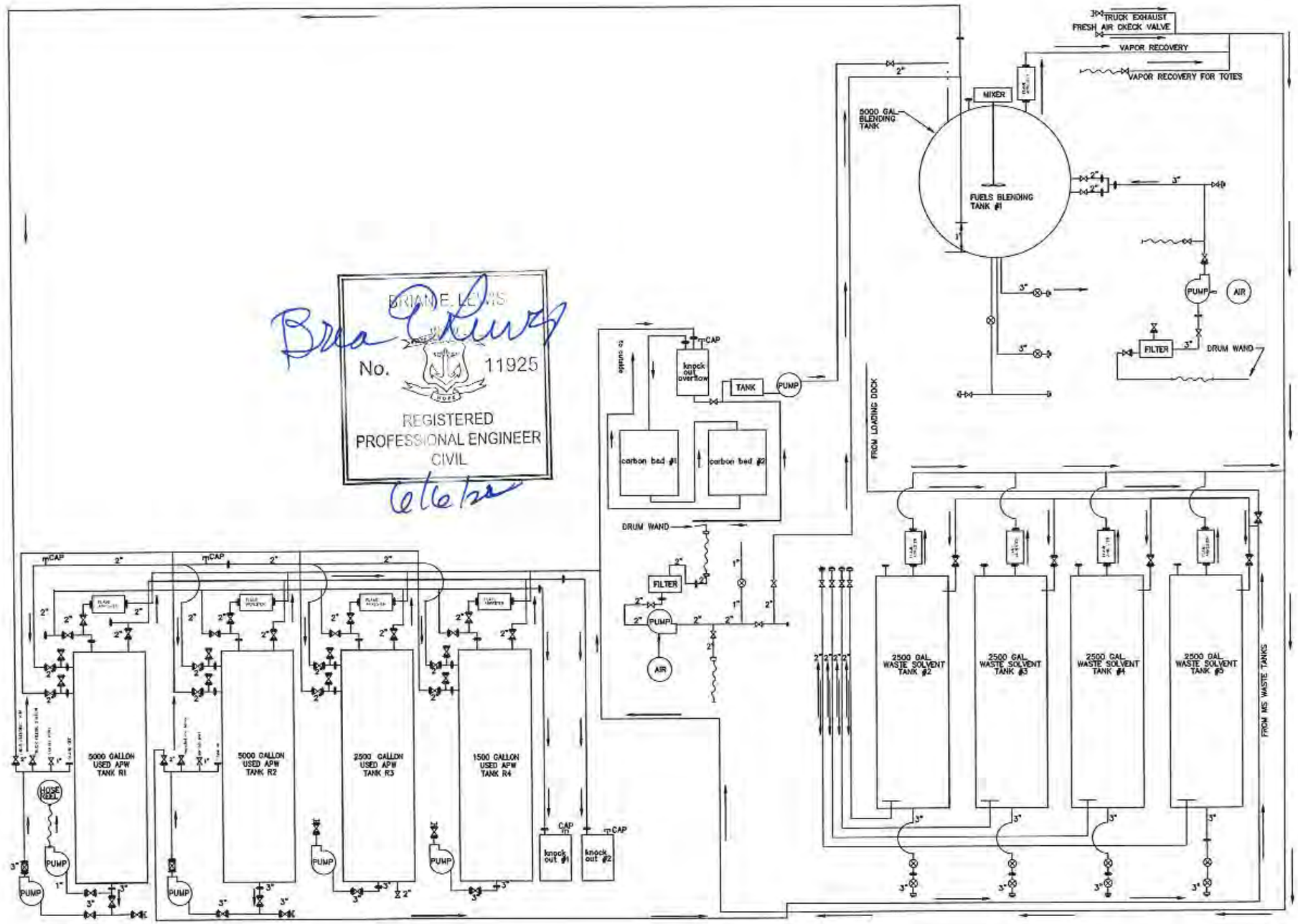
REVISIONS

TITLE
BUILDING C EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	9/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 6



LEGEND:

- HOSE CONNECTION CAPPED
- GATE VALVE
- BALL VALVE
- HOSE CONNECTION
- PIPE END CAP
- FLANGE
- HOSE
- SIGHT GLASS

BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office

660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

NO.	DESCRIPTION	BY	CHK	APPR	DATE
A	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061120
0	ISSUED FOR REVIEW	JEK	GC	GC	061510

REVISIONS

PROPRIETARY STATEMENT

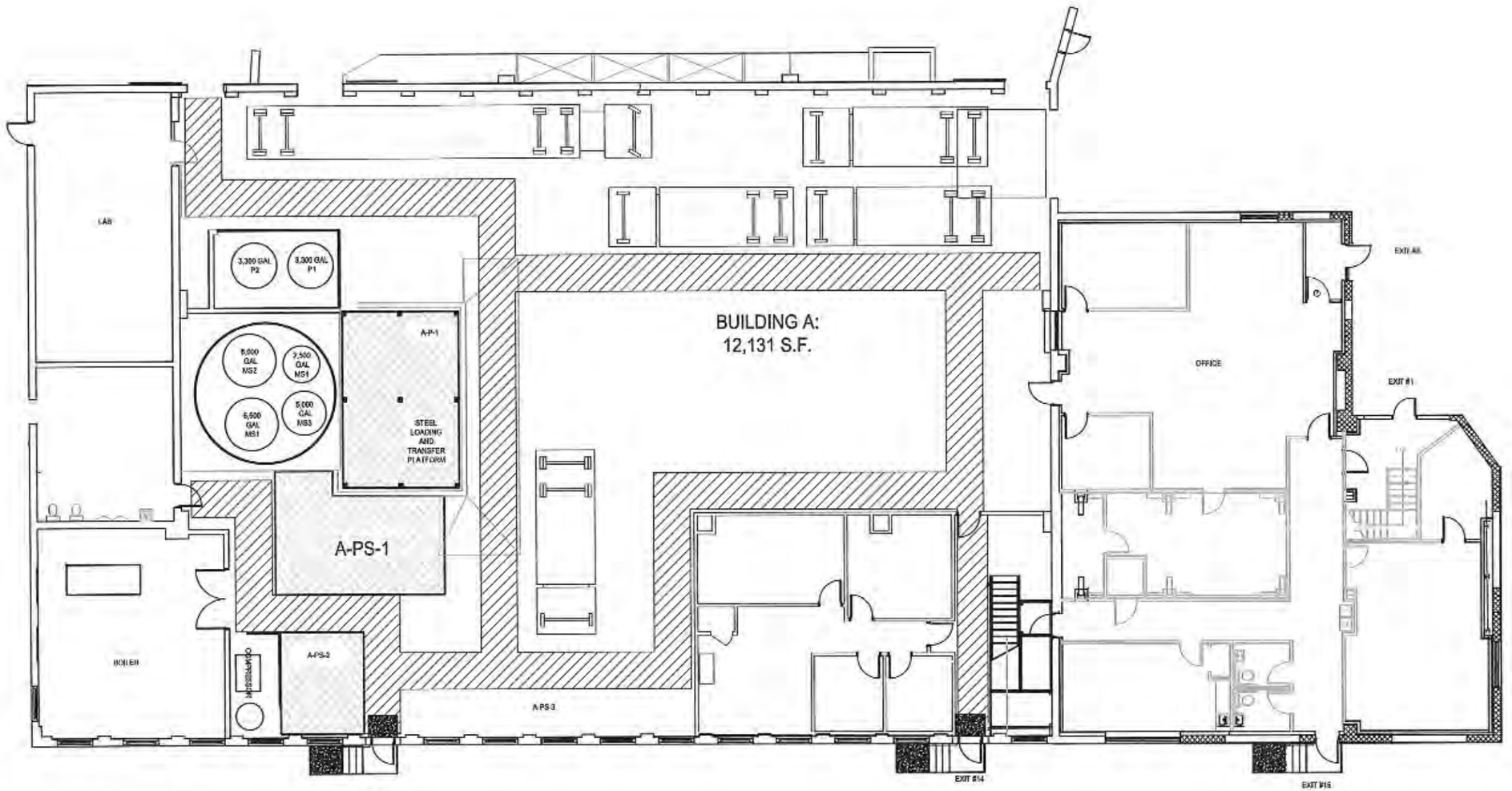
TITLE

BUILDING C EXISTING PROCESS FLOW DIAGRAM

SAFETY-KLEEN SYSTEMS, INC.
5400 LEGACY DR. CLUSTER III, BLDG. 3, PLANO, TX
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DP. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN 7



THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE.

BRIAN E. LEWIS
No. 11325
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6585
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	UPDATED FOR PART B RENEWAL	JEK	JL	JL	061120
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	061710

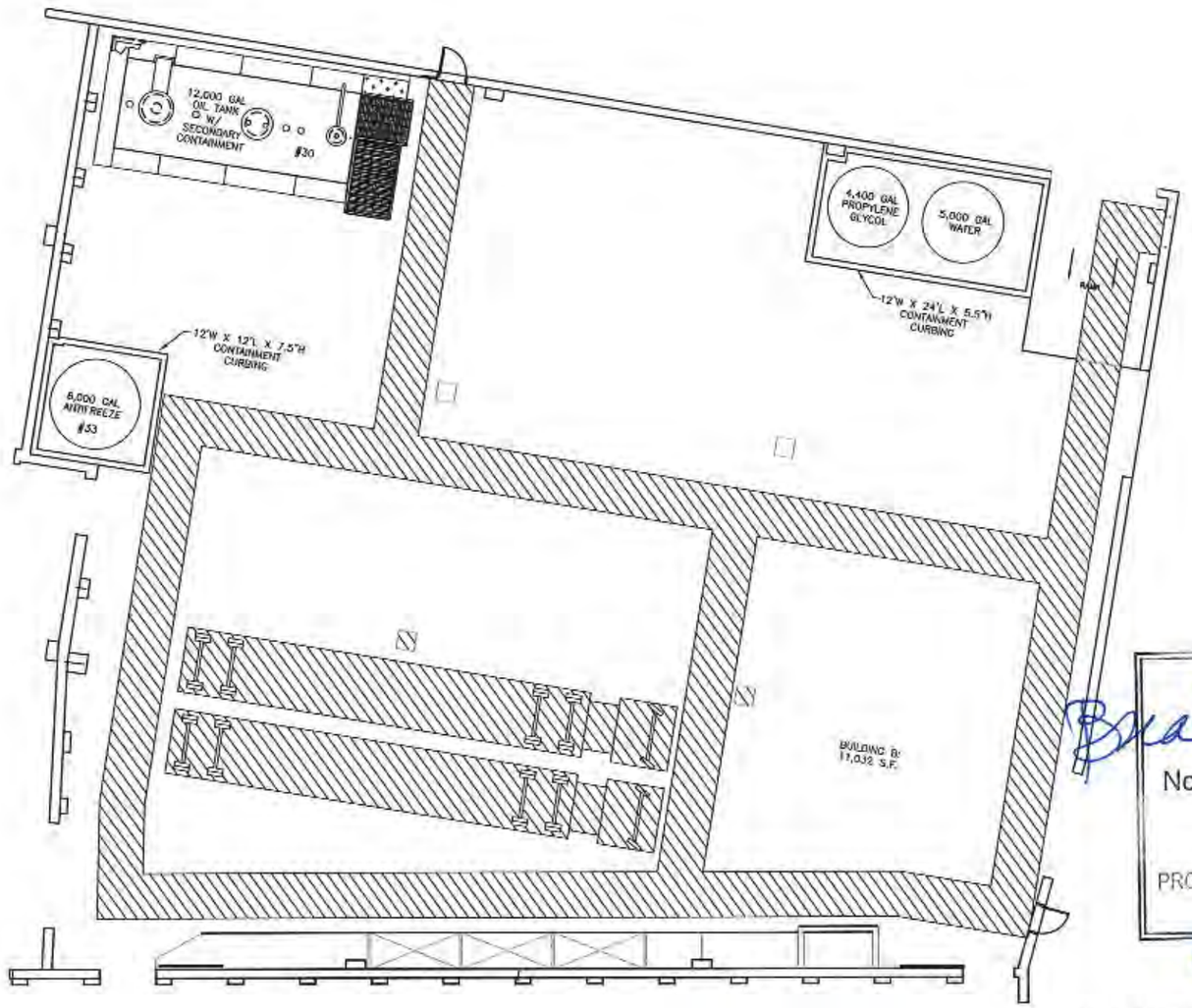
REVISIONS

TITLE:
BUILDING A EXISTING FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DWG-REV NO.: PLAN B



BRIAN E. LEWIS
No. 11925
REGISTERED
PROFESSIONAL ENGINEER
6/16/22

N

0' 3' 10'
1" 6" 15"

PROPRIETARY STATEMENT

THESE PLANS ARE INTENDED TO DOCUMENT THE EXISTING AND PROPOSED WASTE PROCESSING AND STORAGE LOCATIONS AND OTHER SITE FEATURES AT THE APPLICANTS FACILITY. THEY ARE NOT TO BE CONSTRUED AS EQUIPMENT OR BUILDING DESIGN PLANS OR SPECIFICATIONS INTENDED TO MEET CODES AND/OR STANDARDS, NOR A PORTRAYAL OF BUILDING, EQUIPMENT, FIRE AND LIFE SAFETY CODE COMPLIANCE OR CONDITIONS AT THE SITE

ROUNDTABLE TECHNICAL RESOURCES
Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023
Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
B	ISSUED FOR PERMIT	JEK	JL	JL	071217
A	ISSUED FOR PERMIT	AB	AB	AB	062915
0	ISSUED FOR REVIEW	JEK	GC	GC	060210

REVISIONS

TITLE
EXISTING WAREHOUSE B
FLOOR PLAN

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	P.E. APPR	DR. APPR	DATE
1/8" = 1'-0"	JEK	GC	GC	GC	3/22/10

BRANCH LOCATION: CRANSTON, R.I.
STD-DVG-REV NO.: PLAN 9

REFERENCES:

1) SEE RECORDED PLAN ENTITLED: "RIVERBANK INDUSTRIAL PARK A.P. 4/3, LOTS 2680, 2684 1107 MILL STREET CRANSTON, R.I. PREPARED FOR: G.W.C. MANAGEMENT CORP.", DATED JULY 15, 2003, REVISED 11/17/03, PREPARED BY CROSSMAN ENGINEERING, INC. AND FILED AS PLAT 703 MAP 466.

LEGEND:

EXISTING EDGE OF PAVEMENT	
EXISTING CHAIN LINK FENCE	—X— X—
PROPOSED CHAIN LINK FENCE	—+—+—
EXISTING WATER GATE	WG
EXISTING HYDRANT	HYD.
FIRE INDICATOR VALVE	FIV.
SIAMESE FIRE DEPT. CONNECTION	FDC
EXISTING WATER VALVE	WV
EXISTING SANITARY SEWER CLEAN-OUT	S-CO
EXISTING GAS GATE	GG
EXISTING MONITORING WELL	MW
EXISTING CATCH BASIN	CB
EXISTING UTILITY POLE	UP
EXISTING OVERHEAD WIRES	OHW
EXISTING HAND HOLE	HH
EXISTING TREE LINE	
EXISTING BOLLARD	
EXISTING CONCRETE LOADING DOCK	LDD
APPROXIMATE FLOOD ZONE LIMIT	
STORMWATER FLOW	

ZONING M-2

MINIMUMS:
- AREA 60,000 S.F.
- FRONTAGE 200 FT.

SETBACKS:
- FRONT 40 FT.
- SIDE 25 FT.
- REAR 30 FT.

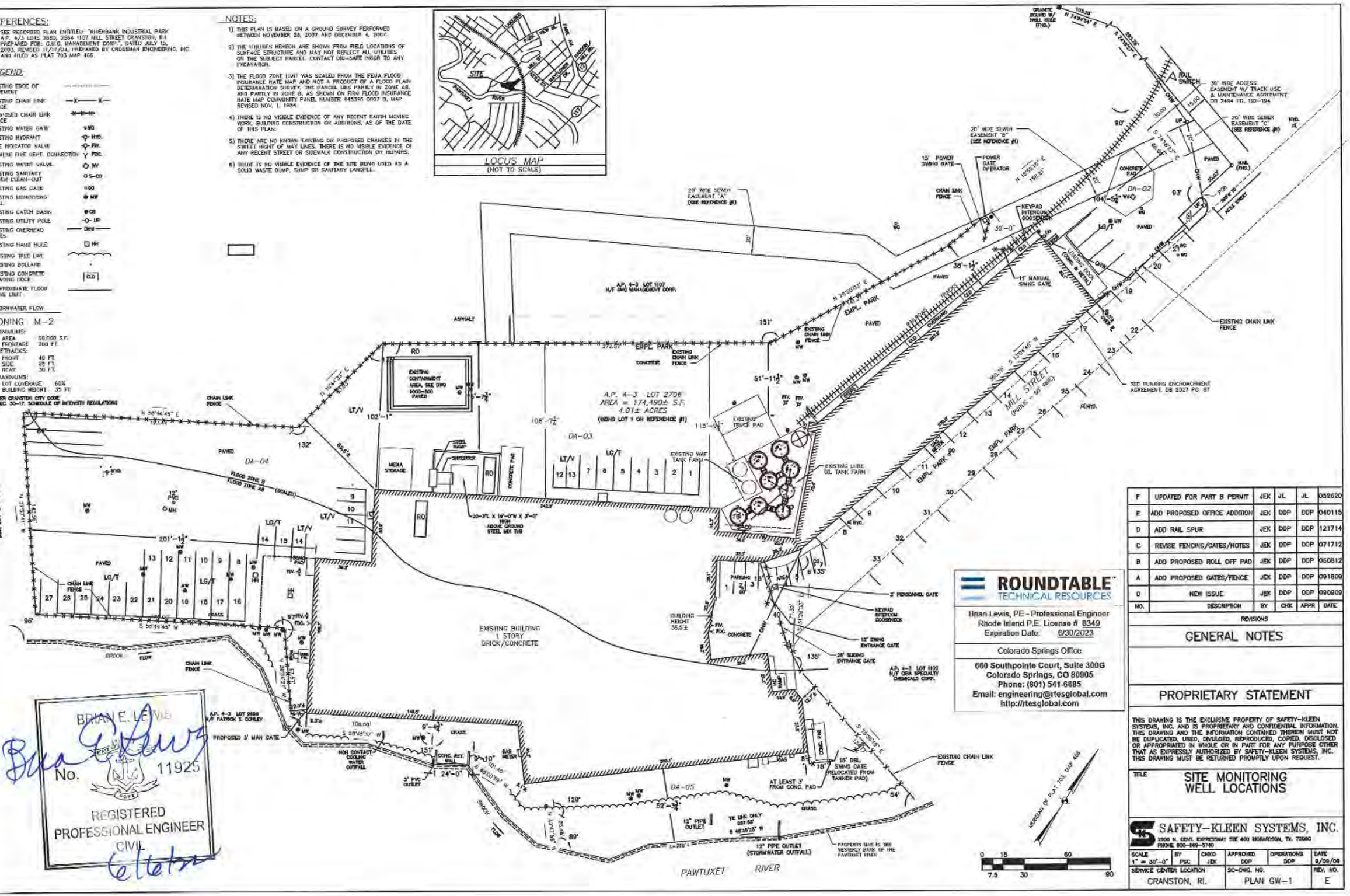
MAXIMUMS:
- LOT COVERAGE 60%
- BUILDING HEIGHT 35 FT.

PER CRANSTON CITY CODE SEC. 30-17, SCHEDULE OF INTENSITY REGULATIONS

NOTES:

1) THIS PLAN IS BASED ON A GROUND SURVEY PERFORMED BETWEEN NOVEMBER 28, 2007 AND DECEMBER 4, 2007.
2) THE UTILITIES HEREON ARE SHOWN FROM FIELD LOCATIONS OF SURFACE STRUCTURE AND MAY NOT REFLECT ALL UTILITIES ON THE SUBJECT PARCEL. CONTACT DIG-SAFE PRIOR TO ANY EXCAVATION.
3) THE FLOOD ZONE LIMIT WAS SCALED FROM THE FEMA FLOOD INSURANCE RATE MAP AND NOT A PRODUCT OF A FLOOD PLAIN DETERMINATION SURVEY. THE PARCEL LIES PARTLY IN ZONE AE, AND PARTLY IN ZONE B, AS SHOWN ON FIRM FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 445396 0007 D, MAP REVISED NOV. 1, 1984.
4) THERE IS NO VISIBLE EVIDENCE OF ANY RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR ADDITIONS, AS OF THE DATE OF THIS PLAN.
5) THERE ARE NO KNOWN EXISTING OR PROPOSED CHANGES IN THE STREET RIGHT OF WAY LINES. THERE IS NO VISIBLE EVIDENCE OF ANY RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
6) THERE IS NO VISIBLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

LOCUS MAP
(NOT TO SCALE)



BRIAN E. LEWIS
No. 11925
REGISTERED PROFESSIONAL ENGINEER
CIVIL

ROUNDTABLE TECHNICAL RESOURCES

Brian Lewis, PE - Professional Engineer
Rhode Island P.E. License # 8349
Expiration Date: 6/30/2023

Colorado Springs Office
660 Southpointe Court, Suite 300G
Colorado Springs, CO 80905
Phone: (801) 541-6685
Email: engineering@rtesglobal.com
http://rtesglobal.com

NO.	DESCRIPTION	BY	CHK	APPR	DATE
F	UPDATED FOR PART B PERMIT	JEK	JL	JL	052620
E	ADD PROPOSED OFFICE ADDITION	JEK	DDP	DDP	040115
D	ADD RAIL SPUR	JEK	DDP	DDP	121714
C	REVISE FENCING/GATES/NOTES	JEK	DDP	DDP	071712
B	ADD PROPOSED ROLL OFF PAD	JEK	DDP	DDP	060812
A	ADD PROPOSED GATES/FENCE	JEK	DDP	DDP	091809
0	NEW ISSUE	JEK	DDP	DDP	090809

REVISIONS

GENERAL NOTES

PROPRIETARY STATEMENT

TITLE: SITE MONITORING WELL LOCATIONS

SAFETY-KLEEN SYSTEMS, INC.
2600 N. CENT. EXPRESSWAY STE 400 RICHARDSON, TX. 75080
PHONE 800-669-5740

SCALE	BY	CHKD	APPROVED	OPERATIONS	DATE
1" = 30'-0"	PSC	JEK	DDP	DDP	9/09/08

SERVICE CENTER LOCATION	SC-DWG. NO.	REV. NO.
CRANSTON, RI.	PLAN GW-1	E

SECTION 1.0

INTRODUCTION

RCRA PART B PERMIT

VOLUME 1

May 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 1.0 INTRODUCTION

Table of Contents

1.0 INTRODUCTION

1.1 GENERAL

Safety-Kleen Systems, Inc. (Safety-Kleen) maintains and operates a commercial waste recycling/treatment, storage and transfer facility at 167 Mill Street, Cranston, Rhode Island. The facility's geographic location is 41°45' 57" north latitude and 71°24' 45" west longitude. All waste storage and processing areas are located inside the building complex.

Safety-Kleen operations focus on the collection, recovery, sorting and processing of waste materials for beneficial reuse. Safety-Kleen accepts, stores, and processes a variety of hazardous and non-hazardous wastes including ignitable and halogenated solvents, used oil, spent filters, metal bearing wastes, certain corrosive and reactive wastes, universal wastes, waste paint and used electronic equipment. Safety-Kleen's permit also includes the management of regulated wastes such as waste oil, used oil filters, used aerosol cans, fluorescent/light bulbs, batteries, waste paint, universal Waste and other wastes.

The facility began storing and treating hazardous waste in 1978 and applied for a hazardous waste Part B permit in 1984. The facility continued to operate as an "existing waste facility" under Rhode Island Department of Environmental Management's (RIDEM) Hazardous Waste Rule (250-RICR-140-10-1(1.9)). until a final Part B permit was issued by RIDEM in January 1986. The Part B permit was renewed after a five-year duration. Safety-Kleen submitted an updated Part B renewal application in June 2015 that addressed updated waste management activities at this facility which became effective on September 4, 2018 and expires January 1, 2021. This renewal application includes current and proposed waste management activities.

Safety-Kleen activities are vital to the goals of the Resource Conservation and Recovery Act (RCRA) by providing hazardous waste generators a secure and effective facility to manage their waste. Safety-Kleen's completely enclosed storage and processing areas

substantially limit any possibility of a release of potentially harmful materials to the environment.

1.2 FACILITY OWNERSHIP

On December 28, 2012, Safety-Kleen became a subsidiary of Clean Harbors, Inc., a leading provider of environmental, energy and industrial services in North America. Clean Harbors is publicly traded on the New York Stock Exchange under the symbol CLH. Despite being owned by Clean Harbors, Safety-Kleen will continue to maintain its' Federal Employer Identification number of 396090019.

1.3 FACILITY NAME, MAILING ADDRESS AND LOCATION

Name:	**Safety-Kleen Systems, Inc.**
Contacts	David Loomis, Facility General Manager
	Brian Crawford, Branch General Manager
Phone:	(401) 781-0808
Fax:	(401)-781-7593
Mailing Address:	167 Mill Street, Cranston, Rhode Island 02905-1049
Location:	167 Mill Street, Cranston, Rhode Island

1.4 LIST OF OFFICERS OF SAFETY-KLEEN SYSTEMS, INC.

Officer	Title
Eric W. Gerstenberg	Executive VP, Environmental Services
James Rutledge	Executive VP and Chief Financial Officer
Jerry E. Correll	President, Safety-Kleen
Gregory Malerbi	Senior Vice-President and Treasurer
C. Michael Malm	Secretary
Michael R. McDonald	Assistant Secretary

1.5 EPA ID NUMBER

Safety-Kleen Systems Inc.'s EPA ID Number is RID084802842.

1.6 CERTIFICATION BY EXECUTIVE OFFICER

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 ensure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to be 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.

James C. Childress
Vice President Environmental Compliance

May 6, 2022
Date

SECTION 2.0

DESCRIPTION OF WASTES ACCEPTED

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 2.0 DESCRIPTION OF WASTES ACCEPTED

Table of Contents

2.0 DESCRIPTION OF WASTES ACCEPTED

2.1 General

This section describes the types and chemical/physical nature of wastes accepted at Safety-Kleen Systems, Inc. Safety-Kleen is a commercial hazardous and non-hazardous waste management facility that accepts and processes a variety of wastes including ignitable and halogenated solvents, used oil, spent filters (including waste oil filters), metal bearing wastes, certain corrosive and reactive wastes, universal wastes, paint wastes, used electronic equipment or devices and wastes from Community Collection Centers and Paint Collection Centers. Wastes are accepted in solid, liquid, semi-solid form or contained gaseous (aerosol cans only) and are stored on-site in either tanks or containers.

The purpose of this section is to provide a complete listing of the United States Environmental Protection Agency (USEPA) and Rhode Island Department of Environmental Management (RIDEM) waste codes that can be accepted and processed at Safety-Kleen Systems, Inc.

2.2 Description of General Waste Categories

Wastes accepted and processed at Safety-Kleen Systems, Inc. are grouped into seven (7) general categories as described below. All USEPA and RIDEM waste numbers authorized for acceptance can be classified into these categories. Safety-Kleen Systems, Inc. can receive these waste categories individually or as mixtures.

The five general waste categories include:

1) Halogenated/Toxic

2) Ignitable (flammable/combustible)

3) Waste Oils

4) Corrosive

5) Reactive

6) Non-Hazardous and Hazardous Solids, Semi-solids and Sludges

7) Universal and Related Waste including waste from activities at Community Collection Centers and Paint Collection Centers subject to (250-RICR-140-10-1(1.12)).

2.3 USEPA and RIDEM Waste Codes Accepted by Safety-Kleen

Table 2-1 lists the specific USEPA and RIDEM waste numbers that can be accepted by Safety-Kleen Systems, Inc. Wastes accepted may be in an individual category and carry an individual waste number, or may be a mixture of wastes that crossover into two or more categories and are assigned multiple waste numbers.

Table 2-1

USEPA and RIDEM Hazardous Waste Numbers That Can Be Accepted

USEPA and RIDEM Waste Codes			
F001	F002	F003	F004
F005	F006	F019	F037
F038	K048	K049	K050
K051	K052	D001	-------
D002	D003	D004	D005
D006	D007	D008	D009
D010	D011	D012	D013
D014	D015	D016	D017
D018	D019	D020	D021
D022	D023	D024	D025
D026	D027	D028	D029
D030	D031	D032	D033
D034	D035	D036	D037
D038	D039	D040	D041

USEPA and RIDEM Waste Codes			
D042	D043	------	U002
U003	U019	U031	U037
U041	U044	U045	U052
U055	U056	U057	U069
U070	U072	U078	U079
U080	U083	U088	U092
U102	U107	U108	U110
U112	U113	U115	U117
U121	U122	U124	------
U140	U151	U154	U159
U161	U162	U165	U169
U171	U188	U196	U210
U211	U213	U220	U226
U227	U228	U238	U239
U359	P022	------	------
R001	R002	R003	R004
R005	R006	R007	R008
R009	R010	R011	R012
R013	R014	R015	R016

2.4 Non-Hazardous Wastes

In addition to the above, various other non-hazardous wastes which do not meet the regulatory definitions of hazardous under 250-RICR-140-10-1(1.4)(B) and/or 250-RICR-140-10-1(1.5(A)(82)) (which corresponds to 40 CFR Part 261) will be accepted at Safety-Kleen Systems, Inc.

2.5 Acceptable Non-Hazardous and Hazardous Waste Media and Debris

Generation sources of non-hazardous and hazardous waste media and debris include commercial, municipal and industrial processes consist of high water content solid

materials that are removed at a generator's site through use of mobile vacuum trucks or mechanically exhumed and placed in containers.

Waste types intended for acceptance in the solidification and stabilization operation at the facility include solids saturated with liquids or non-RCRA metals classified as non-hazardous wastes based on generator determination and the Safety-Kleen pre-acceptance characterization process. These types of saturated solids exhibit a physical consistency also described as semi-liquids, semi-solids, sludges or slurries and elevated concentrations of non-RCRA metals. Examples of non-hazardous saturated solid types acceptable for solidification and stabilization include, but are not limited to, the following:

a. Manhole sump solids;
b. Stormwater catch basin sediment;
c. Stormwater separator units;
d. Stormwater retention and detention basin sediment;
e. Street sweepings;
f. Dredged materials;
g. Oily debris (absorbents, paper, wood, rags, etc.);
h. Oil spill cleanup debris;
i. Wastewater treatment sludges;
j. Manufacturing process collection sump wastes;
k. Sediment collected in vacuum or pump trucks;
l. Sediment collected in process frac tanks;
m. Uncontaminated construction and demolition debris;
n. Non-RCRA metal wastes;
o. RIDEM hazardous wastes;
p. Contaminated construction and demolition debris;
q. Contaminated sediments from catch basins, sumps, manholes and separators; and

r. Investigation-derived waste consisting of various unimpacted overburden and saturated zone soils from environmental site investigations and geotechnical borings.

2.6 Non-Acceptable Hazardous Media and Debris

Waste types not intended or acceptable for the solidification or stabilization operation at the Safety-Kleen facility include saturated solid waste streams and RCRA hazardous wastes. Examples of non-hazardous saturated solid types not acceptable for the solidification process include, but are not limited to, the following:

a. Pathenogenic wastes;
b. Combustion ash residues;
c. Agricultural wastes;
d. Asbestos-containing materials;
e. Municipal POTW sludges; and
f. Putrescible wastes;

2.7 Other Non-Acceptable Waste Types

Except for truck-to-truck transfers, Safety-Kleen Systems, Inc. will not accept reactive, explosive, water reactive, shock sensitive, or gaseous hazardous waste. However, Safety-Kleen Systems, Inc. will accept certain corrosive wastes (batteries and contained electrolytes/gel), reactive wastes (certain batteries), and contained gases (aerosol cans).

2.8 Waste Category Physical and Chemical Characteristics

Table 2-2 provides physical and chemical characteristics and descriptions of each waste category accepted at Safety-Kleen Systems, Inc.

TABLE 2-2

Physical and Chemical Characteristics of Wastes

CATEGORY	Physical Description	Typical Wastes	Chemical/Physical Characteristics
Halogenated (Toxic)	Liquid, sludge and solid, and any mixture thereof.(1)	A	Wastes listed in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261) because they are toxic. Wastes exhibiting the toxicity characteristic defined in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261.24).
Flammable / Ignitable	Liquid, sludge and solid, and any mixture thereof.(1)	B	Liquids with a flash point < 200°F. Solids that emit flammable vapors at <100 °F.
Waste Oil	Liquid, sludge and solid, and any mixture thereof.(1)	C	Used oil includes any oil that has been refined from crude, or any synthetic oil that is no longer usable for its original intent.
Non-Hazardous	Liquid, sludge and solid, and any mixture thereof.(1)	D	Any chemical or mixture of chemicals not meeting the definition of hazardous waste under 250-RICR-140-10-1(1.4(B)) or 250-RICR-140-10-1(1.5(A)(82)) (which corresponds to 40 CFR 261). Non-hazardous wastes will be categorized for compatibility, storage and handling in accordance with the waste categories in Section 2.20.
Corrosives (certain batteries, electrolytes, gel, etc.)	Liquid, sludge and solid, and any mixture thereof.(1)	E	Wastes exhibiting the corrosive characteristic defined in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261.22).

CATEGORY	Physical Description	Typical Wastes	Chemical/Physical Characteristics
Reactives (certain batteries)	Liquid, sludge and solid, and any mixture thereof.(1)	E	Wastes exhibiting the reactive characteristic defined in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261.23).
Universal and Related Waste	Liquid, sludge and solid, and any mixture thereof.	E	Generally consists of wastes such as batteries, bulbs, ballasts, etc., which may contain acids or fail the toxicity characteristic in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261.24) or certain PCB's. These items may be toxic, corrosive or reactive.

NOTE (1). Can also include aerosol cans containing these materials.

CATEGORY A. Various spent and off-specification chlorinated and fluorochlorinated solvents, compounds and products (such as 1,1,1-Trichloroethane, Tetrachloroethylene, etc.) and mixtures at concentrations from 0 to 100%.

CATEGORY B. Various spent and off-specification solvents, compounds and products (such as mineral spirits, naphtha, kerosene, paints, xylene, acetone, methyl ethyl ketone, paints, etc.) and mixtures at concentrations from 0 to 100%).

CATEGORY C. All spent and off-specification oil or oily water mixture at concentrations from 0 to 100%.

CATEGORY D. Any waste material that does not meet the definition of hazardous waste under 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261) or RIDEM Hazardous Waste Rules 3.32 and 3.67(i.e. waste oil filters, waste anti-freeze).

CATEGORY E. Various spent and off-specification universal and related waste such as batteries as described in 250-RICR-140-10-1(1.14.5) (which corresponds to 40 CFR 273.2); pesticides as described in 250-RICR-140-10-1(1.14.5) (which corresponds to 40 CFR 273.3); thermostats as described in 40 CFR 273.4 (250-RICR-140-10-1(1.14.5)); cathode ray tubes (CRT) as described in (250-RICR-140-10-1(1.14.1.5)); mercury-containing devices as described in (250-RICR-140-10-1(1.14.1.3)); and mercury-containing lamps as described in (250-RICR-140-10-1(1.14.1.4)).

2.9 Inventory Capacity

Table 2-3 provides Safety-Kleen System's, Inc.'s maximum inventory capacity by waste category, and estimated quantities recycled, treated, bulked and/or consolidated annually. Safety-Kleen Systems, Inc. accepts both bulk and various size container shipments of hazardous and non-hazardous wastes.

TABLE 2-3

Summary of Storage Capacities

CATEGORY	MAXIMUM CAPACITY		TOTAL (gallons)	Estimated Annual Quantity Recycled/Treated/ Bulked/Consolidated/ Trans-Shipped (gallons per year)
	CONTAINERS [1] (gallons)	TANKS (gallons)		
Halogenated/Toxic	38,500 gallons (Bldg C – Northwest Wall)	15,000 gallons (2) (Building C)	53,500 gallons	1,000,000 gallons
Ignitable	Ignitable (Included in Halogenated above)	Ignitable (Included in Halogenated above)	Included in Halogenated above	1,000,000 gallons
	Ignitable (Flammables) 11,000 gallons (Building C – Flammable Storage Room)		11,000 gallons	Included with the above totals
Corrosive	Corrosive (Included in Halogenated above)	Corrosive (2) (Included in Halogenated above)	Included in Halogenated above	Included with the above totals
Reactive	Reactive (Included in Halogenated above)		Included in Halogenated above	Included with the above totals
Non-Flammable Solids	5280 gallons (Building D – Center)	N/A	5280 gallons	Included with the above totals
Waste Motor Oils, Oily Debris, Rags, Etc.	5,500 gallons (Bldg B – Northwest Wall and Bldg D – Southeast Corner)	30,000 gallons (Building B – Tank 30 12,000 gallons Northwest Wall) (Building B (2 trucks) – 18,000 gal.)	35,500 gallons	5,000,000 gallons

CATEGORY	MAXIMUM CAPACITY		TOTAL (gallons)	Estimated Annual Quantity Recycled/Treated/ Bulked/Consolidated/ Trans-Shipped (gallons per year)
	CONTAINERS (1) (gallons)	TANKS (gallons)		
Non-Hazardous Waste	11,000 gallons (Bldg B – Northwest Wall and Bldg D – Southeast Corner)	20,000 gallons (Building B – Tank 33 6,000 gallons) (Building C – Tanks 15 – 18 , 14,000 gallons)	31,000 gallons	2,000,000 gallons
Roll-Offs	18,180 gallons (Building B – Northwest Wall, Mix Tub Pad, 3 x 30 cu. yd Roll-Off equivalents)	N/A	18,180 gallons	Included in Non-Hazardous above
Mix Tub Container	8,686 gallons (Building D – Northwest Wall, 43 cu. yd Mix Tub)	N/A	8,686 gallons	1,500,000 gallons
Total Gallon Capacity	98,146 gallons	65,000 gallons	163,146 gallons	N/A
Universal Waste Totals	120,000 pounds (Buildings C & D)	N/A	N/A	1,000,000 pounds

(1) Container sizes will vary.

(2) Ignitable liquids and corrosive (aqueous waste) can also be stored in halogenated tanks.

(3) Roll-Offs may be used for non-hazardous storage after solidification or stabilization.

(4) Volume for 11 x 400 gallon intermediate bulk containers (totes) are embraced in Building C, Northwest wall halogenated/toxic container gallon totals.

2.10 Household Hazardous Waste and Paint Collection

Safety-Kleen may also accept wastes from Community Collection Centers and Paint Collection Centers as defined in (250-RICR-140-10-1(1.12)). The types of materials

that Safety-Kleen Systems, Inc. is authorized to receive may include architectural paint, paint related waste, solvent paint strippers, old gasoline, oil and solvent based cleaners, electronic equipment, and other non-conforming incidental wastes.

Wastes received are inspected, sorted and segregated by compatibility, disassembled, crushed/shredded, bulked, blended or consolidated on site while other waste types are shipped off-site in the container in which they were received to appropriate authorized facilities for treatment, recycling or disposal. Some waste received by Safety-Kleen Systems, Inc. may be shipped to another authorized facility in the same container the waste was shipped to Safety-Kleen Systems, Inc. which is termed a "directly transferred material." Storage and processing operations are discussed in detail in Section 3.00 of this application.

2.11 Product Distribution

Safety-Kleen Systems, Inc. also distributes products (dry cleaning solvent, parts washer solvent, paint thinner, absorbents, windshield washer fluids, lube oils, etc.) to customers. Accordingly, many products are stored throughout the facility and maybe co-located with containers of hazardous and non-hazardous waste. Safety-Kleen maintains such products in both containers and tanks and will ensure such co-located products and wastes are compatible. Windshield washer fluids in bulk are stored in tanks in the WWF tank farm. Lube oil products in bulk are stored in tanks in a tank farm adjacent to the WWF tank farm, truck pad, and Building L.

SECTION 3.0

DESCRIPTION OF FACILITY PROCESSES

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 3.0 DESCRIPTION OF FACILITY PROCESSES

Table of Contents

3.0 DESCRIPTION OF FACILITY PROCESSES

3.1 INTRODUCTION

3.1.1 General Description

This section of the application describes the operations and processes employed at Safety-Kleen Systems, Inc. to store and process wastes described in Section 2.00. Safety-Kleen Systems, Inc. provides a valuable service to generators of hazardous and non-hazardous waste through the acceptance, storage, processing and recycling of their waste. Operations at Safety-Kleen Systems, Inc. involve the acceptance and temporary storage of various wastes; waste oil and hazardous waste fuel blending; recycling and/or processing of parts cleaning waste (solvent and aqueous based cleaners); recycling/processing of contaminated filters and debris; miscellaneous operations involving processing of other hazardous and non-hazardous waste (per Section 3.5.5); and the consolidation and bulking of wastes for shipment off site. Safety-Kleen Systems, Inc. accepts wastes generated by manufacturing industries, dry-cleaners, automotive repair facilities, etc. The equipment and processes used to store and process the above wastes are described in this section.

3.1.2 Staffing and General Operations

Safety-Kleen Systems, Inc. operates within the building complex located at 167 Mill Street, Cranston, Rhode Island. Plan 5 shows the overall layout of the Safety-Kleen Systems, Inc. facility. Plans 8, 10, 14 and 15 show detailed views of individual building floor plans.

Normal operations of the facility are from 6:00 a.m. to 9:00 p.m. from Monday to Friday. When work load demands, additional shifts including weekends, will be employed. If Safety-Kleen Systems, Inc. operates a second or third shift or operates on weekends, there will be a minimum of two employees present. Whenever Safety-Kleen Systems, Inc. operates a second or third shift or on weekends, the Emergency Response

Coordinator or one of the alternate Emergency Response Coordinators will be immediately available to respond to any emergency situation.

Safety-Kleen Systems, Inc.'s normal staff consists of a facility manager, assistant operations manager and operations personnel and administrative staff. There is a considerable amount of cross training among Safety-Kleen Systems, Inc.'s employees to provide the company with flexibility in staffing facility operations.

3.2 WASTE ACCEPTANCE PRACTICES

This section describes how containerized and bulk wastes are received at Safety-Kleen Systems, Inc.

3.2.1 Acceptance of Incoming Shipments

When a waste shipment arrives at Safety-Kleen Systems, Inc., the waste loaded inbound truck will be staged in the Cranston facility yard for no more than 72 hours. Inbound trucks are staged on a paved and bermed area of yard with no surface cracks or gaps, and, not within the limits of the 100 year flood plain as shown on Drawings 7422-SPOO-013-3 and 7422-9000-500. The hazardous waste manifest, or Bill of Lading (BOL) shipping paper for non-hazardous waste, is reviewed to ensure it is authorized for acceptance. If acceptable, the transport vehicle is directed to the loading/unloading areas in Buildings A, B, D, or L. Sampling and waste acceptance screening is conducted as described in the Waste Analysis Plan in Section 5. Containerized waste unloaded at the Building L loading dock will be staged for up to 24 hours. If waste analysis screening indicates the waste is authorized, it is approved for acceptance. Safety-Kleen Systems, Inc. will only accept hazardous waste from transporter's who are permitted (authorized) to transport such waste in the State of Rhode Island.

3.2.2 Container Acceptance

Vehicles containing waste in containers are unloaded by qualified personnel in the loading/unloading areas in Buildings A, B, D and L. Containers are temporarily located in the sampling/staging areas in Buildings A, B, or D and the number of containers are checked against the quantity indicated on the manifest/shipping paper. In addition, the condition of the containers is inspected. If a container is found to be leaking, the waste is transferred to a compatible container or the container is over-packed. Sampling and waste acceptance screening is then conducted as described in the Waste Analysis Plan. Containers received in Building L will be temporarily staged in the northern portion of the building for no more than one shift (they will be removed before the end of the work day) while the containers are inspected, sampled and acceptance screening is conducted.

If the incoming container shipment is acceptable, the manifest/shipping paper is completed and appropriate copies are given back to the transporter. The containers are then identified as described in the Waste Analysis Plan in Section 5, and relocated to an appropriate storage area within Building B, C, or D. The storage location, description (including common name, EPA or RIDEM waste number and physical form), and quantity of hazardous waste received, manifest number, generator's name and EPA ID number, manifest discrepancies (if any), and the date received are recorded in the facility operating records.

Off-loading of containerized waste is conducted in Buildings A, B, D and L The waste is sampled, and waste screening and acceptance is conducted in accordance with the Waste Analysis Plan. When accepted, the drums containing hazardous and non-hazardous waste are transferred to Building B, C, or D where the contents of containers are transferred to storage tanks, other containers, or remain in the original containers.

During transfer and storage operations, containers of hazardous waste are maintained closed with bungs/head covers securely in place. Containers are not opened except

when processing, transferring or obtaining samples. If, after manifest review, it is determined that a waste is not authorized for acceptance by Safety-Kleen Systems, Inc., it will be handled in accordance with the provision set for in Section 5, Waste Analysis Plan.

Containers of parts washer solvent are emptied on the return and fill dock in Building A and are then cleaned and re-filled with parts washer solvent product. These containers are either off-loaded directly onto this return and fill dock or are staged temporarily prior to being processed on this dock. Due to the nature of these drums and this process, Safety-Kleen places the container label on the container lids rather than on the sides of the containers. These containers are not double-stacked so the labels will always be accessible for inspection.

3.2.3 Bulk Shipment Acceptance

Bulk wastes received at Safety-Kleen Systems, Inc. include waste oils, solvents, and non-hazardous wastes. Bulk shipment unloading operations take place within Building A, B, and D loading/unloading areas and in the Tank Truck Loading/Unloading Transfer Bay outside Building B. From this area, bulk wastes can be transferred to any of the facility waste storage tanks.

All bulk transfer operations at Safety-Kleen Systems, Inc. are carried out with extreme care to minimize the possibility of leaks or discharges from hose connections and related piping. During unloading of bulk shipments, one fully trained operator is present at all times to oversee operations. All transfers of waste are conducted in contained areas which minimizes potential environmental releases.

Prior to adding waste to a storage tank, waste analysis is performed on the waste to confirm the manifest description and ensure compatibility with waste already in the tank. A specific storage tank is then selected on the basis of waste volume to be added, tank availability and operating status. All bulk wastes accepted and stored in tanks at

Safety-Kleen Systems, Inc. are compatible however dedicated tank groups (solvent, blending, waste oil, antifreeze, etc.) are maintained to minimize cross-contamination.

Once unloading is complete, the location, description (including common name, EPA or RIDEM waste number and physical form), and quantity of hazardous waste received, along with manifest number, generator's name and EPA ID number, manifest discrepancies (if any), and the date received are recorded in the facility operating records which is an electronic data management tracking system.

3.3 CONTAINER AND TANK STORAGE

3.3.1 Container Storage

Containerized waste at Safety-Kleen Systems, Inc. can be stored in Buildings B, C or D. Containers include any size containers or drums, portable totes, roll-offs or other types of containers. Container storage area capacities are summarized on Table 3.4 and locations are shown on Plans 10, 14, and 15.

All wastes in containers are stored on pallets except for roll-offs and portable totes. Pallets are stored in orderly rows as shown on the facility Site Plans. Between each single row of pallets, a minimum of two feet (24-inches) of aisle space is maintained to allow for inspection of the containers and emergency access as per 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.35).

Small containers of wastes can also be consolidated at Safety-Kleen Systems, Inc. Such consolidation takes place in interior contained building areas including the waste oil container storage area, flammables storage room, non-hazardous container area, Building B (Paintcare program), ignitable/halogenated/toxic/other waste types container area, or the roll-off areas. The flammable liquid consolidation area is provided with a fire suppression system and a ventilation system.

3.3.2 Tank Storage

Safety-Kleen Systems, Inc. has several tanks available for the storage and recycling/treatment of incoming bulk and containerized hazardous wastes and waste oil. A summary of the tanks is provided in Table 3.3. The locations of the tanks are shown on Plans 10 and 14.

All tanks used for hazardous waste storage are located within the Safety-Kleen Systems, Inc. buildings and are in secondary containment structures. All waste storage tanks are fitted with visual level gauges or high level alarms to prevent overfilling. Tank groups (waste oil, blending, waste solvent) have dedicated piping systems for waste oil, blending, waste solvent to prevent accidental mixing of waste types.

Sediment and sludge may accumulate in the bottoms of the storage tanks. Occasionally, this material must be removed from the tanks and processed or disposed. Currently, sludge is removed from each of the spent parts washer tanks and the existing fuel blend tank as needed (currently about once a year). The removed sludge is tested, characterized and shipped off site to an authorized facility for treatment and disposal.

3.4 GENERAL OVERVIEW OF PROCESS DESCRIPTIONS

Safety-Kleen Systems, Inc. waste management activities include blending of hazardous and non-hazardous, non-recyclable waste in blending tanks, crushing of spent oil filters, and the processing of waste oil. In addition, wastes are consolidated from small or partial containers into drums, tank trucks, roll-offs, etc., for off-site disposal.

All hazardous waste processing operations are performed in interior containment areas at Safety-Kleen Systems, Inc. Dikes, berms and building containment areas are epoxy-coated and prevent spills from being released to the environment. Operations are batch or semi-continuous processes which require plant personnel to be in attendance to monitor operations and are conducted at essentially atmospheric pressure.

Incoming wastes vary in concentration from dilute (i.e., spent lighting bulbs, spent oil filters) to concentrated (i.e. spent solvents, spent oils, etc.). Safety-Kleen Systems, Inc. accepts wastes with varying concentrations of constituents. Such wastes can be blended or consolidated on site, trans-shipped or disassembled, crushed, shredded or bulked/consolidated on-site or trans-shipment to another designated facility. For organic wastes blended, there are no minimum or maximum concentration limits of constituents that would preclude blending. Hazardous or non-hazardous containing varying concentrations of constituents can be combined, bulked or consolidated into containers or into storage tanks in accordance with procedures set forth in the Waste Analysis Plan.

3.5 SPECIFIC PROCESS DESCRIPTIONS

3.5.1 General

This section describes the specific processes for wastes handled at Safety-Kleen Systems, Inc. As previously described, liquids and solids are received at the facility in either bulk loads or in containers. Detailed information provided by generators and analyses conducted according to the Waste Analysis Plan determine whether the wastes can be recycled, processed, blended as hazardous waste or alternative fuel, or consolidated/bulked for shipment off site.

3.5.2 Containerized Waste Consolidating, Transfer and Bulking

Some hazardous and non-hazardous wastes received in containers are consolidated and stored into other containers or tanks, or into vehicles for off-site shipment to other authorized facilities.

a. Liquids

Liquids are removed from containers in the following areas:

- Building C staging area adjacent to the solvent storage tanks (see Plan 10) for wastes that are pumped to tanks 10, 11, 12, and 13, or to other containers.
- Building C in the flammable storage room for the consolidation of containers.
- Building D in the aerosol can processing room for emptying aerosol cans.
- Building B adjacent to the waste oil tanks for waste oil transfer to tank 30.
- Building B staging area adjacent to the bulk Tank Truck Load/Unload Transfer Pad for transfers into bulk tank trucks.
- Building B Paintcare program.
- Building A staging area on the loading/unloading dock for transfer into the solvent transfer tanks.
- Building L staging area for loading of containers onto trailers for outbound shipment.

When containers are located in staging areas for transfer, consolidation or bulking, the quantity of containers staged is limited to that which can be emptied during the work shift, and will not exceed 7,000 gallons of liquid at any one time. The number of staged containers does not include those that may be received and awaiting waste acceptance screening or those staged for shipment off site. At the end of a work shift, all containers located in staging areas that contain liquid waste will be returned to their designated storage areas. When transferring flammable liquids, a bonding and grounding system is used as a safety control technique for protection against static electricity buildup. This is accomplished by bonding or grounding transfer vessels by physical means (wires) unless such is inherently present (fixed metal piping).

b. Solids/Sludges

Compatible solid and sludge wastes (paint sludges, oily wastes/debris, etc.) are consolidated into containers (drums, roll-offs, etc.) for shipment off-site. All

consolidation of waste takes place in contained, interior building areas.

3.5.3 Hazardous Waste Blending

One (1) 5,000 gallon tank (Tank #14), located in Building C shown on Plan 10, is used to blend waste that is then shipped off-site to be incinerated as a hazardous waste or used as an alternate fuel. This includes wastes such as paint sludge, ignitable solvents, oils, non-hazardous wastes, etc. The contents of containers are transferred into the blending tank by pumping. Incoming bulk shipments of compatible wastes can also be off-loaded into this hazardous waste blending tank.

Filtration of the liquid in the tank is sometimes employed to reduce the suspended solids content prior to shipment. Solids or water, if any, removed by settling or filtration will be containerized and shipped off-site for disposal. Blended alternate fuels are shipped by tank truck or rail car to authorized facilities, hazardous waste incinerators or other authorized off-site treatment or disposal facilities. The blended alternate fuel may be tested to ensure it meets specifications required by the off-site facility. Refer to Plan 12 for a flow diagram of this process.

3.5.4 Waste Oil Waste Processing

Waste oil is stored and processed in one (1) 12,000 gallon carbon steel tanks (Tank No. 30) located in Building B, shown on Plan 9; Tanks Nos. 15, 16, 17, and 18 in Building C. Waste oils, oil/water mixtures and/or used antifreeze may also be stored and processed in these tanks. A separate 6,000 gallon tank (Tank 33) is located in Building B for the storage of non-regulated materials such as waste water and used antifreeze. Blends which meet the definition of specification or off-specification used oil fuel according to 250-RICR-140-10-1(1.16.1) (which corresponds to 40 CFR 279) are shipped to facilities authorized to market or burn them. These tanks are referenced in Table 3.3.

Used waste oils processed in these tanks undergo gravity phase or centrifuge separation. Heat can be applied with internal steam coils and/or an external heat

exchanger to facilitate separation. In addition, de-emulsifying and/or pH adjusting agents may be added to break emulsions and further facilitate oil/water separation. Separated oil may be filtered, and is then stored and shipped to an authorized facility for burning, further processing or disposal. The following table, based on US EPA regulations, is used to determine whether oil is "on-specification" or "off-specification."

Table 3.1

Determination Specification Criteria for Used Oil

Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100°F minimum
Total Halogens	4000 ppm maximum

Used oil not meeting the above standard is considered off-specification. Oil meeting the above standards is considered on-specification used oil. Oil containing more than 1,000 ppm total halogens is presumed to be mixed with a listed halogenated hazardous waste unless this presumption is rebutted by demonstrating the oil does not contain a hazardous waste or that the presumption does not apply in accordance with the procedure set forth in 250-RICR-140-10-1(1.16.1(A)(2)) (which corresponds to 40 CFR 261.3(a)(2)(v)).

Any separated water and/or sludge will be collected and shipped off site to an authorized facility for treatment and disposal. Wastewater may be pretreated and discharged to the public sewer if permission can be obtained from the sewer authority. Refer to Plan 13 for a process flow diagram of this process.

3.5.5 Solidification/Stabilization of Non-Hazardous Waste in the Mix Tub Container

a. Solidification/Stabilization Process

The solidification/stabilization process begins with the removal of pre-approved wet solid materials from a generator's site through use of mobile vacuum trucks, pumps trucks or exhumed and placed in water-tight containers. On arrival at the facility, waste materials are subject to verification prior to dumping into the solidification/stabilization mix tub container in accordance with the facility's Waste Analysis Plan (WAP).

Upon approval by the facility to receive the load, materials from vacuum trucks and/or drums are controlled dumped into a steel hopper referred to as a "mix tub" set upon a concrete secondary containment pad. Solidification/stabilization bulking agents are added to the semi-solid wastes in the mix tub.

Solidification bulking agents serve to reduce the water content of saturated waste materials. A homogenous higher-solids consistency is achieved through a ratio mixture of measured solidification additives or agents based on the original water content. Stabilization agents serve to bind non-RCRA metals reducing metal leaching. The semi-solids and solidification/stabilization additives are mechanically mixed using a hydraulic excavator until a desired solid stiffness consistency is reached. Solidification/stabilization is achieved when representative samples pass the paint-filter test (i.e., no free liquids). When solidification/stabilization is achieved, waste materials are excavated from the mix tub and placed in shipping containers or roll-offs for transport to landfills.

b. Solidification/Stabilization Bulking Agents

Bulking agent additive used for solidification are non-hazardous granular absorbent materials such as paper pulp, wood dust, bentonite clay, fullers earth, speedi-dri, hydrated silica, sand, lime and various cement mixtures.

c. Location and Design of the Solidification Process Area

The activity area abuts the north side of the facility adjoining Building D as shown on Drawing No. 7422-WBOD-707. The activity area is a 1,425-square foot epoxy-coated concrete pad constructed with a 10-inch high secondary containment berm under a protective overhead canopy. Dimensions and containment capacity is detailed in the table below:

SOLIDIFICATION PROCESS AREA	MEASUREMENTS
Length	47 feet – 3 inches
Width	30 feet – 0 inches
Berm Height	10 inches
Surface Area	1,425 square feet
Secondary Containment Capacity	44 cubic yards

d. Design of the Mix Tub Container

The mix tub is a free-standing rectangular container constructed of welded carbon steel that firmly rests on the concrete pad described in section 3.3. The steel mix tub has an operating heap design capacity of forty-three (43) cubic yards inclusive of bulking agent additive volume. The tub location and design dimensions are shown on Drawing No. 7422-WBOD-707. Dimensions and containment capacity are detailed in the table below:

MIX TUB DESIGN	MEASUREMENTS
Length	20 feet – 3 inches
Width	19 feet – 0 inches

Height	3 feet – 0 inches
Operating Design Maximum Capacity	43 cubic yards*

*The structural capacity measures 27.7 cubic yards. The "heap" capacity refers to a mounded portion of the solids within the central portion of the tub that typically is estimated between 2 to 3 cubic yards. As a result, the maximum operating design capacity is calculated to be 43 cubic yards.

e. Frequency of Operation

The facility estimates that approximately two (2) to three (3) loads per week will be processed or up to fifteen (15) loads on a monthly average. In addition, it is estimated that approximately thirty (30) to fifty (50) 55-gallon drums may be processed on a monthly basis.

f. Daily Inspections of Operations

The solidification process area shall be inspected on a daily basis in accordance with provisions of the current General Inspection Schedule under the operating permit. The solidification process shall be included on the daily inspection form and recorded on the inspection system forms currently in use. Criteria of visual inspections shall consist for the following items:

a. Checking that waste materials remain in secondary containment;
b. Daily cleanup of process residues on the concrete pad; and
c. Securing a poly tarp cover over the mix tub when not in use.

3.5.6 Miscellaneous Operations

In addition to the processes described above, Safety-Kleen Systems, Inc. performs several other miscellaneous operations involving processing of other hazardous and non-hazardous waste. They are described in this section.

a. Shredding and Compacting

Oil and other filters as well as batteries and electronic equipment and non-hazardous

wastes may also be processed by draining, compacting, disassembly, dismantling or shredding. Used oil filter containers are emptied into the oil filter crusher in Building D where the filters are compacted. Free liquids are removed from the compactor and managed as used oil. Prior to shredding or compacting the other materials, the items are drained of free liquids in appropriate containerized storage areas (i.e., - dry cleaning filters in the halogenated container area). Non-hazardous wastes may be shredded in the Mix Tub Shredder prior to solidification, if necessary.

Compacting into containerized drums is accomplished in the drum compactors in Building C or D. Disassembly and dismantling is generally accomplished manually or in a mechanical shredder also located in Building D. In any of these operations, all removed liquids and other components are collected and containerized. If disassembled, dismantled or shredded, the components are separated and recycled or disposed based on the hazardous characteristics of that component. Any components that remain hazardous after the disassembly, stripping, dismantling, or shredding process are shipped to authorized off-site facilities for treatment, disposal or recycling.

b. Container Compaction

A drum compactor located in Building D is used to compact solid wastes (rags, debris, personal protective equipment, filters/filter components, small empty containers, etc.) into drums. Prior to compacting empty containers, free liquids are drained/removed from each container.

c. Aerosol Cans

An aerosol can puncturing unit will be installed in the aerosol processing room in Building D. It will be used to release pressure and collect residual contents from empty or partially filled aerosol (paint, etc.) cans. Collected liquids will be characterized and managed appropriately as hazardous or non-hazardous waste and either blended as a fuel as previously described or shipped off-site to an authorized treatment or disposal

facility. If required, vented vapors will be processed through an emission control system.

Unprocessed aerosol cans will be stored in containers in appropriate areas depending on the material they contain (i.e., flammables in flammable storage room). Only aerosol cans containing compatible materials (i.e., flammables) will be processed at a time. This will be accomplished by relocating containers of aerosol cans containing compatible materials to the temporary staging area located outside the aerosol can processing room. The cans will be punctured in the processing room with residuals collected in containers. Incompatible residues will not be collected in the same containers. Containers of residuals will be stored in an appropriate storage area (i.e., flammable residuals will be stored in the flammables storage room). Processed (drained) aerosol cans will be collected as non-hazardous scrap metal in 55-gallon drums or in a scrap metal dumpster and may be crushed for consolidation purposes. They will be located inside but away from waste container storage areas so as not to interfere with waste handling operations.

d. Batteries, Ballasts, Electronic Equipment, Lighting Fixture Recycling

Spent lighting fixtures will be accepted, stored in Buildings C or D and packaged for shipment in compliance with federal DOT regulations. This operation will be completed manually. The bulb packaging process will be conducted to minimize breakage. Full containers will be securely covered posing minimal risk to Safety-Kleen Systems, Inc. employees or subsequent transporters. When applicable, the bulb breakage (broken/crushed bulbs, metal end caps and glass) will be shipped off site for recycling and the collected powder will be shipped off site to authorized facilities for mercury recovery or for disposal.

Batteries will be stored in Buildings C or D. Batteries will be processed to render them available for recovery operations or disposed. Electrolytes may be drained or removed cells may be crushed or shredded and components may be separated. All segregated

components will be containerized and shipped to authorized off-site facilities for recovery or disposal. Batteries may also be re-shipped without processing.

Ballasts will be similarly processed to separate components. PCB containing ballasts will be processed separately and removed PCB containing materials will be containerized and shipped to a facility authorized by EPA TSCA regulations for disposal. Ballasts may also be directly reshipped without processing.

Other electronic equipment such as CRTs, circuit boards, computer components, etc., will be stored in Buildings C or D, and may be disassembled, crushed, shredded as appropriate and the separated components containerized and shipped to authorized facilities for recovery or disposal. Such equipment may also be directly reshipped without processing.

Universal wastes as defined in 250-RICR-140-10-1(1.14) and 250-RICR-140-10-1(1.14.1) (which corresponds to 40 CFR 273) may be accepted with Safety-Kleen as the destination facility. In addition, such wastes may be accepted and held for not more than ten (10) days when another location is selected by the generator as the destination facility. In this case, tracking documents, if any, will travel with such waste to the destination facility. Safety-Kleen will comply with (250-RICR-140-10-1(1.14)) (the Universal Waste Rule) when managing such wastes as universal wastes.

e. Processing Paint Collection Center Waste

Safety-Kleen is approved to collect shipments of paint from Paint Collection Centers and Community Collection Centers. Registered "*Paint Collection Centers*" (under the approved PaintCare program in Rhode Island) may designate architectural paints as defined by 250-RICR-140-10-1(1.5(A)(5)) as an "*R013*" (fee exemption waste code) in addition to other applicable waste codes. Safety-Kleen is authorized to accept wastes from household collection centers or household collection services provided by municipalities, provided the wastes from these activities are the types of materials that

Safety-Kleen Systems, Inc. is authorized to receive. These wastes may include paint related waste, solvent paint strippers, old gasoline, oil and solvent based cleaners, and electronic equipment.

As acknowledged by the *PaintCare* program, although drop-off sites are trained and instructed to screen out non-Program Products, "it's likely that a small number of containers of "non-Program Products" may enter the Program and be screened out during the sorting process by *PaintCare's* transporters and processors." In such instances, Safety-Kleen has operating management procedures to accept and inspect bin containers shipped to us and has the capability to sort and segregate *non-Program Products* as "incidental wastes" which subsequently can be properly re-packaged, labeled and recycled or disposed of as hazardous waste in accordance with the OLR&SMM hazardous waste rules and regulations.

Latex paints will be moved to Building B and/or Building D and stored for a pour off process. The process will start with employees depacking the latex flexbins and stacking paint containers on a table where another employee will use a hammer and pry bar to pop the lids off of the paint containers and then set them onto a conveyor system. The containers will then circle around the conveyor to the opposite side where another employee will be picking the containers off, and based on color, will select the appropriate open drum into which the specific paint container will be poured. There will be a total of 6 color families, and thus 6 drums to choose. The drums will have a grated top specifically designed to dump the paint containers over top of and drain into the open drums. Once the paint container has been emptied, it will be scraped free of any lose residual and then stacked on a table to dry out. Once the container is dried up and no free liquid remains, the empties will be collected in a dumpster and upon filling the dumpster, they will be transferred to a rolloff. Empty latex cans may be shredded prior to transfer to the rolloff. All scrap cans will go to a local recycler, and any cans that are not able to be deemed recyclable will be placed in a separate dumpster and will

ultimately go to the mixpit and disposed of as non-haz debris.

Any non-latex paint materials (e.g., oil-based paints, etc.) will be moved to Building B and/or Building D and stored for processing. The process will start with employees depacking the flexbins and separating any non-latex paint materials from latex paints. Non-latex paint materials will not be poured off, but will be placed into flexbins for shipment offsite.

3.5.7 Lab Pack Waste Acceptance and Processing

Incoming containers containing inner packagings of waste are referred to as lab packs. Safety-Kleen accepts and processes lab packs provided they contain wastes authorized for acceptance as described in Section 2.0 of this application. Oftentimes, such lab packs contain listed and/or characteristic unused commercial chemical products but may also contain small containers of spent materials. Safety-Kleen will require generator profiles for lab packs and require initial characterization and waste acceptance analysis, if required, in accordance with the procedures described in the Waste Analysis Plan (Section 5.0). Waste profile sheets are completed by waste generators to accurately identify the waste and the process that created the waste. Generic profiles have been established for core waste streams and for used oil, oil filters, antifreeze, and other non-hazardous wastes (not including soils/sludges). For these waste streams, generic certifications are completed prior to the initial pick-up and at each subsequent service. These generic certifications and waste profile sheets will be maintained electronically by the facility.

For non-core waste streams, due to the greater variability in the compositions; their application or use; and the source industry, Safety-Kleen Systems, Inc. evaluates each stream from each generator separately. When a non-core waste stream is considered, the generator must provide Safety-Kleen Systems, Inc. with complete information on the waste stream. At a minimum this would include, a properly completed material profile, material safety data sheets (MSDS or SDS), if applicable, and any analysis, such as

TCLP data, pertinent to the approval process.

For waste streams where the composition may not be clearly known by the generator, Safety-Kleen will require the generator to have a representative sample of the waste analyzed and will not approve any wastes for receipt unless the waste stream is clearly characterized on a profile backed up by laboratory data.

Once accepted, lab packs will be brought to the lab pack processing area where they may be opened, sampled, if required, consolidated and/or repackaged. A qualified lab pack technician will review the paperwork (e.g., shipping papers, Safety Data Sheets, waste profiles, etc.) and then open and unpack the lab pack. Compatible materials and wastes will be poured off into larger containers (e.g., bottles of compatible flammables poured into a 55-gallon drum). If any incompatible lab packs are handled in the lab pack processing area, containers removed from such and consolidation containers will be segregated using separate plastic spill pallets or similar containment devices. Consolidation containers will be properly labeled in accordance with 250-RICR-140-10-1(1.10.2(A)(38)) and when full, will be relocated to an appropriate storage area for processing or shipment off site. Lab packed small containers that cannot be consolidated will be re-lab packed in accordance with the requirements of 49 CFR, placed into an appropriate storage area for subsequent processing or shipment off site to an authorized facility. Where proper and complete characterization of an incoming lab pack is verified through a review of shipping documents, waste analysis may not be required or conducted and such lab packs will be unpacked and consolidated as described above, or placed into an appropriate storage area.

3.6 NON-HAZARDOUS WASTE HANDLING

Non-hazardous wastes may be accepted and processed for treatment, recycling, bulking and consolidation. Certain non-hazardous organic liquids/sludges can be

blended as either a hazardous waste fuel or waste oil fuel. Non-hazardous wastes can be shredded by the Mix Tub Shredder. The filter processing, shredding and miscellaneous operations described in Sections 3.5.6 and 3.5.7 may apply to both hazardous and non-hazardous wastes. Any mixture that results from the mixing of a non-hazardous waste with a listed hazardous waste (such as blending non-hazardous waste with hazardous wastes) will be designated a hazardous waste, unless otherwise exempted or excluded by regulation.

3.7 WASTE OIL AND WASTE OIL FILTER OPERATIONS IN BUILDING B and D

3.7.1 General Receipt and Transfer Procedures

Safety-Kleen will process the receipt and transfer of used waste oil in Building B of the permitted facility at 167 Mill Street, Cranston, RI. The waste oil transfer and filter storage operations take place as designated areas in Buildings B and D as described on Site Plan No. 9 and Site Plan No. 15.

All operations in Building B and D are conducted in a totally enclosed and containerized unit for safety and environmental protection. Berms are located at exterior doorways to prevent any accidental spill from entering the environment. Concrete is used as the material of construction for the floor and containment berm/ramps. An epoxy coating seal has been installed on the floor surfaces of Building B and Building D. This coating will reduce or eliminate the migration of spilled waste into the concrete floor. This coating is rated as exceptionally resistant to oil and oily waste. Emergency cleanup equipment such as absorbent, shovels, over-pack drums and brooms are staged in Building B in the event of a spill. Any and all spill cleanup residues are collected, managed and disposed of properly.

Transfer and storage operations are conducted with extreme care and caution in order to minimize the occurrence of leaks or discharges from fittings and related piping or hoses. During loading and unloading of bulk shipments, at least one fully trained

operator is present at all times to ensure that the correct operational procedures and mechanical systems are used for the waste transfer to prevent a release of waste. During the receipt of containerized waste of oil filters each container is inspected to ensure that there are no visible cracks, dents or corrosion that would compromise the integrity of the container while in storage. If a container is found to be leaking, the waste will be transferred to a compatible container or the container is over-packed. Upon acceptance, all used oil filter containers will be stored on pallets in orderly rows in accordance with aisle space requirements under 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.35).

All shipments received will be in accordance with local, state and federal regulations where applicable. Except for generators classified as "quick-lube" centers (e.g., Jiffy Lube and Monro stores), Safety-Kleen will sample and test each generator's used oil for total halogens using a field test method such as a *Dexsil Chlor-D-Tect Kit*® or other method. Used oil will not be loaded into a used automotive oil collection truck if this testing indicates that the used oil contains total halogens over 1,000 parts per million unless it is demonstrated by testing that there are no individual halogenated solvents contained in the used oil at concentrations greater than 100 ppm each. These samples will be retained by the truck driver and returned to Safety-Kleen with the shipment and held until the completion of waste analysis. Pursuant to 250-RICR-140-10-1(1.16) (which corresponds to 40 CFR 279), the used oil will be tested again at the receiving facility. "Quick-lube" centers are exempt from testing because they have a very consistent waste stream and do not employ solvents (e.g., chlorinated brake cleaning solvents) that could make the used oil hazardous waste due to mixing.

3.7.2 Recordkeeping Management

Transporter and facility record keeping will be in accordance with existing RIDEM regulations and existing Permit Conditions. All required records and logs will be maintained for a period of 3 years and will be available for inspectors review upon

request. Incoming shipments will be accompanied by a hazardous or non-hazardous waste manifest. On all such documents, Safety-Kleen may be indicated as the designated facility in which case Safety-Kleen will accept the incoming shipments following completion of waste analysis. Alternatively, some shipping documents may list another location as the designated facility. In this case, Safety-Kleen may perform some of the specification oil testing parameters, but the shipping document will not be signed by Safety-Kleen. Rather, it will accompany the outgoing shipment to the designated facility.

3.7.3 Waste Oil Transfer Operations

a. Transfer Procedures

Two (2) transfer trailers (tankers) having a capacity of less than 10,000 gallons per tanker will be staged in the designated area referred to on Site Plan No. 14. These tankers will be identified with a unique equipment identification number and will be referenced on the appropriate log(s) when waste is transferred into the tanker and when transferred out of the facility for destination disposal.

Used oil received for transfer in Building B will be held for not more than 35 days as allowed by 250-RICR-140-10-1(1.16.7(H)). Incoming vehicles loaded with used waste oil will enter Building B via the west side of the building (overhead door BW2) or the north side of the building (overhead door BN1) and be staged for transfer operations. Typical volumes of used waste oil vehicles will have a capacity of 3,000 to 4,000 gallons per load. Generally, loaded vehicles awaiting transfer will be staged in the Used Oil Transfer Area as designated on Site Plan 14.

b. Recordkeeping Management

For each receipt of a loaded vehicle, logs will be recorded as to the date it entered the facility, transporter information, vehicle identification, generator(s) information, volume of waste and the total halogen test results (not required for "quick-lube" centers). The

vehicle will be staged in Building B awaiting transfer of waste to the tanker. The tanker identified to receive the transfer will be checked for storage capacity to determine the amount of waste that can be transferred into it. Waste will be pumped via hoses/pipes that are securely attached and or positioned to the tanker and incoming vehicle. When the incoming vehicle is fully off-loaded, all valves, hoses, pipes and pumps will be secured and positioned for use with another incoming vehicle. All waste in the tanker will be logged on the Bulk Trailer Log (or equivalent form) and referenced to the vehicles that made up the load. When the tanker is ready for shipment from the facility a proper shipping document will be prepared.

c. Used Oil Specification Check Determination

For those tankers that Safety-Kleen will conduct a spec/off-spec determination on, Safety-Kleen will sample and analyze each such loaded tanker truck to determine if the aggregated oil meets the definition of "specification used oil" as described in Section 3.54 of this application. This will be completed by analyzing a representative sample of oil from each loaded tanker truck for the following parameters.

Table 3.2

Used Oil Allowable Levels

Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Polychlorinated Biphenyls (PCBs)	< 2 ppm
Flash Point	100°F minimum
Total Halogens	1,000 ppm maximum (1)

> (1) Used oil that contains greater than 1,000 parts per million (ppm) total halogens is presumed to be a hazardous waste and is subject to the rebuttable presumption set forth in the regulations. However, if it is demonstrated by testing that there are no individual halogenated solvents contained in the used oil at concentrations greater than 100 ppm each, then the allowable level of total halogens will be a maximum of 4,000 ppm.

Oil in tanker trucks determined to contain specification used oil may be shipped as such to authorize used oil burners or other authorized used oil facilities (e.g., marketers). Safety-Kleen will maintain all records of analytical testing, documentation of knowledge of the used oil, and shipping papers from the date the shipment occurs for a period of at least three years. For those tankers that Safety-Kleen will not conduct a spec/off-spec determination on, Safety-Kleen will ship such to an authorized off site used oil processor or marketer.

3.7.4 Oil Filter Storage & Transfer

a. Receiving Incoming Shipments

Incoming shipments of waste oil filters by container or truck that are received by Safety-Kleen will be processed and stored in Building D in the designated area as per Site Plan 15. Incoming shipments of containerized waste oil filters will be received in Building A and transferred to Building D for storage. Activities involving waste oil filters will be in compliance with existing RIDEM regulations and existing Permit Conditions. Record keeping mechanisms in the operating record will be available to inspectors on site for a period of 3 years upon request.

b. Containerized Waste Oil filters

When a used oil filter waste shipment arrives at Safety-Kleen, the shipping paper is reviewed to ensure it is authorized for acceptance. The used oil filter waste review will confirm appropriate drum labeling, generator name, address, city, state and amount of filters generated. If the waste review for used oil filters indicates the waste is

authorized, it is approved for acceptance. If acceptable, the transport vehicle is directed to the loading/unloading area in Buildings A or storage area in Building D. If, after review, it is determined that a waste is not authorized for acceptance by Safety-Kleen Systems, Inc., it will be handled in accordance with the provision set for in Section 5, Waste Analysis Plan.

During all transfer and storage operations, containers are maintained closed with head covers securely in place. Containers are not opened except when processing or transferring. Safety-Kleen will store up to 200 55-gallon drums (or drum equivalents) in the designated storage area in Building D for a period not to exceed 90 days. When sufficient containers are accumulated, they will be transferred into an outbound vehicle for destination disposal or processed on-site in the oil filter compactor for bulk shipments or individual drums.

3.8 TRUCK-TO-TRUCK TRANSFER OPERATIONS

3.8.1 Receipt and Transfer Procedures in the Truck Staging Area

A truck-to-truck transfer operation will be conducted in the Truck Staging Areas (TSA) located inside Buildings B, C and L, and in the Tank Truck Transfer Bay outside Building B. Safety-Kleen will utilize these areas for the receipt and direct truck-to-truck transfer of containers and bulk shipments. Transfers of containerized waste will be conducted in Buildings B, C or L and transfers of bulk waste will be conducted in Building B. This operation will be allowed only if no other changes, other than the entry of an additional ongoing transporter, are required on the accompanying manifest. The waste will not be held for more than 72 hours, not including Sundays and holidays.

Generally, such transfers are required for incoming wastes where Safety-Kleen is not the designated facility on the shipping paper. This can occur if Safety-Kleen is not authorized to accept the waste or if the generator designates (on the shipping paper) that the waste be delivered to another facility. In such cases, incoming paperwork will

be reviewed by Safety-Kleen and the subject containers relocated from an incoming truck to a designated outgoing truck, or for bulk shipments, the contents of an incoming tank truck transferred to an outgoing truck. Shipping papers for such wastes will not be signed by Safety-Kleen as the receiving facility but rather, will remain with the waste until it reaches the designated facility. Such incoming waste will not be placed into storage at Safety-Kleen and will not undergo waste analysis. Such waste will be temporarily held at Safety-Kleen in incoming or outgoing trucks for not more than 72 hours. Shipping papers will be reviewed to ensure all wastes and materials in the trucks are compatible in accordance with the requirements of 49 CFR 177.848 (Segregation of Hazardous Materials).

Bulk waste truck-to-truck transfers will take place in Building B that is totally enclosed and bermed for safety and environmental concerns. Berms are located at exterior doorways to prevent any accidental spill from entering the environment. Concrete is used as the material of construction for the floor and containment berm/ramps. A coating has been installed on the active floor surfaces of Building B. This coating will reduce or eliminate the migration of spilled waste into the concrete floor.

Bulk waste truck-to-truck transfers may also take place in the tank truck bay outside Building B. The tank truck bay is covered and has concrete flooring with containment berms to prevent any accidental spill from entering the environment.

Container and bulk transfer operations will be carried out with extreme care and caution in order to minimize the occurrence of leaks or discharges from containers and from fittings and related piping or hoses. During container and bulk transfer operations, at least one fully trained operator is present at all times to ensure that the correct operational procedures and mechanical systems are used for the waste transfer to prevent a release of waste. During the receipt of containerized waste, each container is inspected to ensure that there are no visible cracks, dents or corrosion that would compromise the integrity of the container while in seventy-two hour transfer. If a

container is found to be leaking, the waste will be transferred to a compatible container or the container will be over-packed.

Once a truck is received in the TSA, Safety-Kleen personnel review the paperwork to confirm the drum count (quantity for bulk trucks) and contents. This area is inspected daily as part of the facility's inspection schedule.

Emergency cleanup equipment such as absorbent, shovels, over-pack drums, and brooms are staged nearby in Building B in the event of a spill. Spill cleanup residues will be collected, managed and disposed of properly.

3.8.2 Quantity in Truck Transfer Area

The total quantity of waste on site, including that held in the above-described TSAs, will not exceed the total authorized for Safety-Kleen as listed in Tables 3-3 and 3-4.

3.8.3 Waste Codes and Compatibility

Waste codes involved in the truck-to-truck transfer operation include all characteristic and listed codes in 250-RICR-140-10-1(1.4(C)) (which corresponds to 40 CFR 261) without the limitations imposed by Section 2.0 and Section 5.0 of the application, including all additional RIDEM OLR&SMM State codes.

Incoming shipping papers will be reviewed to ensure all wastes and materials in the truck-to-truck transfer areas are compatible in accordance with the requirements of 49 CFR 177.848 (Segregation of Hazardous Materials).

3.9 TRUCK-TO-RAIL TRANSFER OPERATIONS

3.9.1 Regulatory Scope of the Proposed Rail Transfer Service Operation

Under the RIDEM permit, Safety-Kleen is authorized to aggregate and transfer

specification used oil. Safety-Kleen is a *used oil marketer* who currently directs shipments of specification used oil that meets specification used oil requirements set forth in 250-RICR-140-10-1(1.16.3(A)(5)) and 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 279.10(b)(1)). Safety-Kleen is also a *used oil transporter* who collects used oil from generators and transports the collected oil to storage facilities and used oil burners. Safety-Kleen is also proposing to transfer non-hazardous liquids, such as antifreeze and wastewaters by rail.

The scope of the Safety-Kleen rail transfer operations plan involves the bulk shipment of non-hazardous specification used oil/recycled fuel oil (RFO) by rail. The transfer of specification used oil by tank truck is currently being conducted from the facility. The alternate transfer of specification used oil by rail utilizes existing facility assets currently referenced in the RIDEM permit and an existing rail spur infrastructure that was refurbished with new rail components and containment pan upgrades.

3.9.2 Safety-Kleen On-Specification Used Oil Description and Classification

Safety-Kleen "*On-Specification Used Oil Fuel/Recycled Fuel Oil*" (RFO) is specification use oil defined as used oil and consists of various blends of refined or synthetic lubricating oils, engine oils, industrial oils and motor oils. Used oil collected by the facility is not classified as RCRA and RIDEM hazardous wastes.

Safety-Kleen "On-Specification Used Oil Fuel/Recycled Fuel Oil" conforms to the specification criteria as *used oil fuel* that meets the minimum allowable levels for Flash Point and does not contain constituents at concentrations that exceed any maximum allowable levels listed by RIDEM regulations in 250-RICR-140-10-1(1.16.3(A)(5)). Allowable specification levels are summarized in the table below:

CONSTITUENT/PROPERTY	ALLOWABLE LEVELS

Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Polychlorinated Biphenyls (PCBs)	< 2 ppm
Flash Point	141 Deg. F. minimum
Total Halogens	4,000 ppm maximum

Non-hazardous liquids such as used antifreeze and wastewaters will also be transferred by rail.

3.9.3 Description of the Rail Car Staging Area

The facility has an existing rail service spur that enters the site on the north side at a point 90-feet west of the Mill Street entrance next to the Building L loading dock. The on-site rail spur is part of an existing 3,500-foot section of railroad track that is owned and operated by the Providence and Worcester Railroad Company. The Providence and Worcester Railroad Company railroad section extends 400-feet into the Safety-Kleen facility. This section of rail spur runs parallel along the western side of Building L to the existing truck transfer pad.

The proposed rail car transfer operation activity area abuts the northwest side of the facility adjoining Building L as shown on Drawing Number 7422-SPOO-013-3. This existing rail section is summarized in the table below:

RAIL SERVICE AREA	MEASUREMENTS
Existing Facility Track Length	400-feet
Track Operational Width	20-feet
Track Operational Area	8,000 square feet

3.9.4 Track Rehabilitation and Secondary Containment Pan System

The 400-foot section of existing rail spur entering the Safety-Kleen facility required

structural rehabilitation upgrades that will consist of new rail line, cross-tie members, underlying ballast and compacted subgrade material. The rail spur included the installation of containment pans with a design containment capacity of 426 gallons for each of the three (3) staged rail cars.

For each rail car, the containment pan installation consist of four (4) fabricated rectangular galvanized steel structures joined and fixed to the rail bed under the center portion of the rail tanker. The containment pan consists of two (2) adjoining inner containment pans between the rails and two (2) outer containment pans that extend along the outside of each rail. The steel pans are joined together using an industrial grade silicone joint caulk sealant along the seam which is covered with an aluminum cap installation anchored with zip screws. Design details and dimensions are listed in the table below and illustrated on Drawing Number BSD-200.

RAIL CAR CONTAINMENT PAN	MEASUREMENTS AND DETAILS
Containment Pan Length (Each)	18 feet – 5 inches
Containment Pan Width (Total)	115 inches (9.6 feet)
Outer Pans (2 outer sections)	57 ½ inches total (28.75 inches each)
Inner Pans (2 inner sections)	57 ½ inches total (28.75 inches each)
Containment Pan Height	4.5 inches
Inter Pan Connection (4 sections make one containment unit)	Zip screwed aluminum cap over pan ends with top silicone caulk sealant along joined pan sides

Based on the containment pan dimensions, the assembly of four (4) integrated pans has a maximum containment volume capacity of 426 gallons. Containment calculations are shown on Drawing Number BSD-200.

RAIL CAR CONTAINMENT PAN	CONTAINMENT VOLUMES
Individual Containment Pan	106.5 gallons each section
Integrated 4 Containment Pans	426 gallons per rail car

3.9.5 Rail Tank Car and Boom Loading Arm Specifications

For the truck transfer and rail transport of nonhazardous used oil and non-hazardous liquids, Safety-Kleen plans to use DOT-111 tank cars (DOT specification 111A100W1) which are constructed by fusion welding carbon steel. These are a common type of unpressurized rail car in use within North America. The DOT-111 rail car is cylindrical in shape with a circular cross-section and elliptical outward convex formed heads at each end. These rail tank cars have an operational capacity of 24,000 gallons. Rail car specifications are illustrated on Drawing No. D-40521 and Drawing No. D-41886.

Used oil product and non-hazardous liquids are transferred to the rail cars using a mounted swivel boom loading arm assembly attached to the side of Bldg. L. The boom loading arm delivery system shall be an overhead assembly that is piped from the truck transfer pad to the top manway opening of the tank cars. The used oil piping/non-hazardous liquid plan is illustrated on Drawing No. 7422-RL01-300 and the rail car oil swivel boom is illustrated on Drawing No. 7422-RL01-900.

3.9.6 Location and Description of the Tank Truck Transfer Pad Area

The facility has an existing truck transfer pad noted in the plans previously submitted to RIDEM under the existing permit. This pad serves for staging tank trucks containing virgin products that are transferred to two (2) vertical product tanks. The containment pad will also serve for staging tank truck carrying non-hazardous used oil and nonhazardous liquids when transferring to the rail tank cars. The transfer area abuts the west side of the facility adjoining Building L as shown on Drawing No. 7422-SPOO-013-3.

The tank truck carrying non-hazardous used oil or nonhazardous liquids will connect via hose to the camlock fitting located within tanker access container (clamshell style box). The camlock fitting is connected to the piping system to transfer the liquid to the rail cars. All the connections of the piping system are constructed with full penetration

welds or flanged fittings.

The tank truck transfer pad is 700-square foot reinforced concrete pad constructed with a 6-inch high secondary containment berm under a protective overhead canopy with a secondary containment volume of 2,414 gallons. A concrete penetrating sealer has been applied to the pad to densify and limit liquid penetration into the concrete. Design details and containment calculations are illustrated on Drawing No. 7422-4100-599. The pad design and containment capacity is summarized in the table below:

TRUCK TRANSFER PAD AREA	MEASUREMENTS
Length	35 feet
Width	20 feet
Berm Height	6 inches
Surface Area	700 square feet
Secondary Containment Capacity	2,414 gallons

3.9.7 Tank Truck Transfer Operation and Management

a. Transfer Operations

The transfer and storage of used oil shall be in conformation with facility's Spill Prevention, Control and Countermeasure Plan (Rev. January 2019) and applicable provisions of the RIDEM Oil Pollution Control Regulations.

Operations shall be conducted that utilize secondary containment pans, daily inspections and transfer procedures. Throughout the transfer operation, a trained person shall be stationed on the transfer pad and visually monitor the boom connection from the pad to the rail car. Safety-Kleen procedures are included in Attachment 3-1.

b. Frequency of Operation

The facility estimates that approximately two (2) to three (3) rail car loads per week will be shipped off-site. Rail transfer activities and loads will be tracked by Safety-Kleen

information management systems currently in use. Off-site shipments shall be tracked using manifest shipment documentation.

c. Daily Inspections of Operations

The truck transfer pad and rail car loading areas shall be inspected on a daily basis in accordance with provisions of the current General Inspection Schedule under the operating permit. Daily inspection shall be recorded on the inspection system forms currently in use. Criteria of visual inspections shall consist for the following items:

a. Inspection of exterior surfaces of boom load arm connections, valves and pipes for proper operation and maintenance;

b. Inspection of rail containment pans for presence of residual spills and accumulated rainwater, snow or ice and implementing procedures for removal prior to used oil transfer;

c. Inspection of rail car outer tank shell, outlet valves, manway hold-down bolting, fittings, closures and openings for corrosion damage to gasket sealing, packing and gaskets;

d. Inspection of that spill control and response equipment are available and ready for deployment;

e. Inspection of the truck transfer pad secondary containment area for any of residual spills and accumulated rainwater, snow or ice and implementing procedures for removal prior to used oil transfer; and

f. Inspection of communication devices for use and operation.

3.9.8 Recordkeeping Management and Operating Plan Updates

As stated for Waste Motor Oil in Section 5.0 of the Waste Analysis Plan, specification used oil acceptance into the facility is controlled through the profiling process described in Section 5.2.1.3 (Waste Approval Process) which is subject to current procedures of

the facility's RIDEM operating permit.

Safety-Kleen Systems, Inc. maintains accurate operating records pertaining for all hazardous and non-hazardous wastes accepted, stored, recycled/treated at the facility and wastes shipped off site. These records will be used to document and manage the rail transfer operations of used oil at the facility, as well as to maintain compliance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.73) as referenced in the RIDEM OLR&SMM hazardous waste management regulations and the operating permit.

Safety-Kleen conducted a detailed review of its operating recordkeeping system and, where applicable, revised updates of operating plans (i.e., Inspection Plan, Waste Analysis Plan, Training Plan, Contingency Plan and Emergency Procedures, Security Plan, Closure Plan and the Spill Prevention, Control and Countermeasure Plan). These changes shall be incorporated and submitted as part of the permit renewal process.

TABLE 3.3

EXISTING STORAGE TANK INVENTORY

TANK NUMBER	BUILDING	SERVICE	MAXIMUM CAPACITY (gallons)
10	C	Solvent Storage	2,500
11	C	Solvent Storage	2,500
12	C	Solvent Storage	2,500
13	C	Solvent Storage	2,500
14	C	Organics/Blending/Storage(1)	5,000
15	C	Non-hazardous material/Waste Oil	1,500
16	C	Non-hazardous material/Waste Oil	2,500
17	C	Non-hazardous material/Waste Oil	5,000
18	C	Non-hazardous material/Waste Oil	5,000
30	B	Waste oil storage/processing(1)	12,000
33	B	Non-hazardous material (waste water/antifreeze)(1)	6,000
Tanker truck	B	Waste Oil Transfer	9,000
Tanker truck	B	Waste Oil Transfer	9,000
		Total Inventory	65,000

(1) Tanks may be used for non-hazardous and/or non-regulated storage such as waste antifreeze.

TABLE 3.4

CONTAINER STORAGE INVENTORY

BUILDING	WASTE TYPE	55-Gallon Drum Equivalents[1]	Capacity (gallons)
C (Flammable Storage Room)	Flammables (NFPA Class IB and IC)[2] (Existing permit provides 100 drums or 5,500 gallons)	200	11,000
C (Along northwest wall)	Ignitable Wastes (NFPA Class II & III), Halogenated/Toxics (chlorinated solvents, etc.) and other compatible waste types. (Existing permit provides 400 drums or 22,000 gallons)	700	38,500
D (Center of Room)	Non-Flammable solids (Proposed)	96	5,280
B (Along northwest wall) D (Along southeast corner)	Waste oil, oily debris, anti-freeze, rags, etc. (Proposed)	100	5,500
B (Along northwest wall) D (Along southwest corner)	Non-Hazardous (waste oil filters) (Existing permit provides 100 drums or 5,500 gallons)	200	11,000
B (Along northwest wall)	Roll-offs (2 - 30 yd.) for non-flammable solids/sludges (no free liquids)/debris (Existing permit provides 2 roll-offs or 12,120 gallons)	NA	12,120
Building D (Northwest Wall)	Mix Tub Container Roll-off, 43 cu. yd Mix Tub + 30 cu. Yd. Roll-off)	268	14,746
Total			98,146

(1) Actual container sizes will vary.

(2) NFPA Class II and III can also be stored in this area.

ATTACHMENT 3-1

CRANSTON RAIL SERVICE TRANSFER CENTER

Rail Tank Car Loading/Unloading Procedure

I. GENERAL

Prior to loading any tank car, the following practices or procedures must be observed.

a. Safety-Kleen must determine to the extent practical that:
   i. Safety appurtenances and fittings are suitable for safe transportation of the lading;
   ii. Last contents are compatible with the new lading, unless car has been suitable cleaned;
   iii. Fittings, closures and openings have been inspected for corrosion damage to gasket sealing surfaces and that packing, gaskets and hold-down bolting are serviceable and compatible with the commodity. All defective packing, gaskets, bolting or threaded elements must be replaced;
   iv. Communication devices (i.e., mobile phones or two-way radios) are operating properly); and
   v. Spill control and response equipment are available and ready for deployment.

b. During all times that car is connected for loading, hand brake must be set and wheels blocked. "CAUTION" signs must be placed on the track to visually communicate necessary warning to the open end or ends of the siding. Unless the track is protected by a closed and locked switch that is within two car lengths of the last car, a derail device should be installed.

c. The loading must have adequate illumination for all observation points from the front to the rear of the car, including the top dome, the bottom valve, and the point of truck connection for pumping product to the rail car.

d. Prior to loading, rail cars shall be positioned over rail containment pans. Spill pans must be visually confirmed that they are located underneath each railcar. ACCUMULATED RAINFALL, SNOW OR ICE SHALL BE REMOVED FROM THE RAIL CONTAINMENT PANS PRIOR TO TRANSFER OPERATIONS.

e. The locating operation, including connect and disconnect procedure, must be performed by qualified persons, properly trained, who will be responsible for compliance during the complete loading operation. After initial training, an annual training update will be performed.

f. Connect tank car and truck grounding wire clips. Inspect condition of connecting wires. Ensure the clips are attached to a solid metal part of both the truck and the railcar.

g. Tank cars with bottom discharge outlets must have primary bottom outlet valve closed and, to check for leakage, outlet caps or outlet plugs must be

removed and any auxiliary valves opened during the entire loading operation. Loaded tanks which permit more than a dropping of liquid (one drop per second) through open cap or plug opening must not be offered for transportation until proper repairs are made. All cars are to be loaded through the top dome.

h. Loaded tank cars that show any evidence of leaking at seams, rivets or connections must not be offered for transportation until proper repairs are made or load transferred to another car. Contact Safety-Kleen for disposition of lading. Contact car owner or his authorized agent for tank shell repairs. Leaking tanks must be stenciled: "LEAKY TANK DO NOT LOAD UNTIL REPAIRED" and "HOME SHOP FOR REPAIRS - DO NOT LOAD" per Rule I of the Field Manual of Interchange Rules. Leaky tanks must be unloaded prior to shipment.

i. Tank cars equipped with operative interior heater coil must have the heater coil inlet and outlet caps in the "off" position during entire time tank is being loaded and must not show any evidence of leakage. Cars with leaking coils must not be offered for transportation. After lading is complete, caps or closures must be made liquid-tight prior to offering car for transportation.

j. Allowance for sufficient outage must be left in tank as required by the tank specification and lading to be transported, but not less than 2% corrected to 60 degrees F. Additional outage should be provided when lading is loaded to less than ambient temperature. Under normal conditions, the car should not be shell full at 105 degree F for non- insulated tanks.

k. All closures of operating tank cars and their protective housings must be properly secured in place by use of wrench or other suitable tool. A wrench having a handle at least 36 inches long must be used to apply the bottom outlet valve cap. Manway covers and outlet valve cap or plug must be made tight against the leakage of vapor or liquid by use of suitable gaskets that are compatible with the commodity. Lute materials (any substance used to seal or stop a leak, e.g., sodium silicate/water glass) are prohibited on bottom outlet cap or on outlet plug threads. A maximum of three wraps of PTFE tape or PTFE paste is acceptable.

l. Maximum loaded weight of car offered for transportation must not exceed gross rail load limit allowed for car, or capacity plus lightweight as stenciled on the car. (See AAR field Manual Rule 70B.3.b).

m. A tank car inspection form meeting Safety-Kleen requirements must be completed by Railyard Manager upon the initial arrival of railcar.

II. LOADING PROCEDURE AND TRUCK HOSE CONNECTION SEQUENCE

a. At the beginning and ending of each working day, the railcar manager or his designee will use a measuring rod to daily measure and record the level of liquid in the railcar.

b. The Safety-Kleen driver, upon gaining access through the rail yard access gate, will ensure gate is closed and secured.

c. Obtain and complete Safety-Kleen documentation for Railyard Manager - if required.

d. Confirm with the Railyard Manager who will specify which railcar to load, review shipping documents and approve transfer.

e. Park vehicle on truck transfer pad - TRUCK MUST BE ON TRANSFER PAD AT ALL TIMES FOR SAFE TRANSFER TO RAILCAR.

f. Confirm that the loading boom is positioned to the appropriate railcar.

g. Securely place the loading manway cover onto the manway of the railcar to be loaded.

h. Connect the transfer hose from the loading boom to the railcar loading manway cover.

i. Confirm railcar has adequate fill volume capacity by sticking and recording level of liquid in railcar and comparing with railcar outage chart.

j. Collect and label truck retain sample with coliwasa as specified in the facility's Waste Analysis Plan.

k. Connect the hose to the output connection from the truck pump. Review pump input arrangement and set valves for off-load; open rail station fill valve.

j. Engage PTO and start pump; immediately climb atop truck to ensure tank compartment is correctly emptying. Go to railcar to ensure product is flowing into rail car and stinger is secure.

k. Emergency shutdown of pump includes closing the export valve and disengaging PTO. (Staff is required to be trained in emergency shutdown procedures).

l. Check all hoses and connections for malfunctions or leaks during the transfer.

m. DO NOT LEAVE TRUCK WHILE PUMPING (line of sight at all times, at truck or through secured location adjacent to tanker transfer pad area).

n. Walk completely around tanker periodically and inspect rail car manway periodically.

o. When transfer operation is complete, purge hose by sucking into tanker truck or blowing into rail car after tanker is empty, whichever is applicable.

p. Carefully break hose connections. Do not allowing hose to drain onto pad. Cap hose end. Use 5-gallon collection bucket if necessary to collect excess oil and prevent spillage. Carefully empty 5-gallon bucket into railcar.

q. Stick and record level of liquid in railcar for Rail Manager use.

III. PREPARING TANK CAR FOR RELEASE TO RAILROAD

l. The Rail Manager or his designed will collect a retain sample from the railcar in accordance with the procedures specified in the Waste Analysis Plan of the Hazardous Waste license.

m. The Rail Manager will perform inspection items and complete the inspection form meeting Safety-Kleen requirements.

n. Car seals shall be applied to man way cover, top unloading housing, top operating mechanism, (for bottom outlet valve) and to the bottom outlet valve or connections. This serves as a deterrent to tampering while the car is in transit.

o. Since all railroad tank cars on the same spur truck will be affected during switching, all obstructions to movement, such as swivel boom hose connections and grounding cables must be removed from all railcars.

i. Disconnect any swivel boom hose connections and ensure the manhole cover is closed and locked.

ii. Remove the grounding wire clamps and position them clear of the rails.

iii. Reinstall all valve safety cover caps on main drain valve and steam heat connection points.

p. Remove the blue flag/derail only after you ensure that all connections or obstructions have been removed. DO NOT RELEASE the rail car brakes. The trainman accompanying the switch engine will inspect the car prior to coupling it. The trainman will release the brakes.

q. Record the tank car numbers and relative position on the clipboard with the loading log. The switch engineer may rearrange the order of the cars.

r. Call the Host Rail Dispatch phone and inform them what car number is to be picked up and where it is destined. Complete the Safety-Kleen Systems Railcar Tracking Log and overnight with manifest to TSD upon release of railcar.

s. Record the security numbers of any security seal wires on the bill of lading and fax that information to Safety-Kleen Corp. Rail Dispatch. Deliver these documents to the switching crew.

IV. BEFORE DEPARTING THE TRANSFER SITE

a. Walk around the tank cars and inspect for leaks.

b. Ensure all equipment is properly stored and secured.

NOTE: There are infrequent situations where a railcar must be off-loaded to a tanker truck for continued transport due to unforeseen circumstances that prevent a railcar switch-out, and thereby preclude the railcar from continuing to its intended destination in a timely manner (e.g. rail strike, derailment, etc.). The following would then apply:

- The loading of the tanker truck from the railcar will only be performed with prior notification to and the approval of the Branch Manager and Compliance Manager.
- The transfer operation will be performed with two people present at all times that include the driver and the rail yard Manager or his designee.
- All operational procedures regarding location, monitoring, hookup and documentation relative to loading the railcar will be followed with the exception that the tanker hose will be inserted into the manway on the railcar and secured to the manway for the transfer operation. One employee will remain atop the railcar at all times to monitor the transfer with another monitor at the truck.

END OF PROCEDURE

SECTION 4.0

ENVIRONMENTAL SAFEGUARDS

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 4.0 ENVIRONMENTAL SAFEGUARDS

Table of Contents

4.0 ENVIRONMENTAL SAFEGUARDS

4.1 Introduction

This section describes the efforts, procedures, structures, and equipment used at Safety-Kleen Systems, Inc. to prevent hazards during hazardous waste, loading, unloading, transfer, storage and recycling/treatment operations, and addresses the requirements found in DEM and US EPA Regulations in 250-RICR-140-10-1(1.9(B)) (which corresponds to 40 CFR 270.14(b)(8)-(11), 270.15, 270.16, 270.25 and 270.27). These regulatory sections require a description of various safeguards to be provided to ensure safe and environmentally secure operations at hazardous waste facilities.

Special procedures and equipment must be used at hazardous waste treatment and storage facilities to prevent hazards during loading/unloading operations, prevent runoff of spills and/or leaks of wastes to the environment, prevent contamination of surface or groundwater supplies, mitigate the effects of equipment failure and power outages, prevent undue exposure of personnel to hazardous materials, and prevent washout of hazardous wastes during a 100 year flood. Safety-Kleen Systems, Inc. has procedures to prevent/minimize the occurrence of the aforementioned situations.

The following sections review the precautions and procedures used in loading and unloading, storing and recycling/treating hazardous and non-hazardous wastes.

4.2 Loading/Unloading Operations - Containment

4.2.1 General

Waste transfer operations take place within contained loading/unloading areas in Buildings A, B or D, and L. All material transfer operations are carried out with extreme care and caution in order to minimize the occurrence of leaks or discharges from fittings and related piping, or from damage to containers. During loading and unloading of bulk shipments, at least one fully trained operator is present at all times to ensure that the correct operational procedures and mechanical systems are used for the waste transfer

to prevent a release of waste. Building A, B and D truck loading/unloading areas are within contained buildings which contain potential spills and eliminate precipitation from entering the areas or contacting containers. When containers are unloaded at the Building L loading dock they are transferred immediately from the truck to Building A, B, C, or L to minimize the potential for a spill or leak occurring outside of containment. Containers may be temporarily staged in Building L for one shift and are moved to permitted storage or loaded onto an outbound truck for shipment off-site before the end of the work day.

Emergency cleanup equipment such as absorbent, shovels, overpack drums and brooms are nearby in the event of a spill. Any and all spill cleanup residues are collected, managed and disposed of properly.

Berms are located at exterior doorways to prevent any accidental spill from entering the environment. Concrete is used as the material of construction for all floors and containment berm/ramps. If a spill were to occur, waste would be collected in the loading/unloading area. The height and a description of each berm is provided in Section 4.4 and Table 4.1. An epoxy type coating has been installed in the general processing area of Building C where drums of hazardous waste are opened and tested and transferred to bulk tanks. An epoxy type coating has also been applied to the permitted storage area in Building L. This coating will reduce or eliminate the migration of spilled hazardous waste into the concrete floor. This coating is rated as exceptionally resistant to most of the wastes handled by Safety-Kleen Systems, Inc. Concrete surfaces throughout the remainder of the facility are sufficiently impervious to contain spilled waste materials for the brief amount of time they are on the floor surface prior to cleanup. Spilled waste will not be allowed to remain on floor surfaces for prolonged period of time. Any spill will be promptly cleaned up.

4.2.2 Bulk Truck - Loading/Unloading

All bulk tank truck shipment loading/unloading operations take place within contained buildings or the tank truck bay located outside Building B as described in Section 3.00

of this permit. The following safeguards are provided during bulk tank truck shipment loading/unloading:

- The incoming truck enters the facility and the driver reports to the office.
- The driver's paperwork is reviewed as indicated in the waste acceptance procedures the Waste Analysis Plan.
- The truck is directed to the appropriate loading/unloading area within Buildings A, B or D, or to the Tank Truck Transfer Bay outside Building B for sampling.
- A storage tank group for the waste is selected based on the description on the manifest and the waste analysis.
- A specific storage tank is selected from the storage tank group on the basis of the available tank volume relative to the volume of the incoming waste load.
- Each bulk load of waste to be unloaded is evaluated for compatibility with the storage tank and its contents in accordance with the Waste Analysis Plan.
- Since all bulk wastes stored at Safety-Kleen Systems, Inc. are compatible and tank groups have dedicated piping, it is generally not necessary to decontaminate tanks or piping.
- During loading/unloading of bulk organic liquid wastes, safe practices are enforced including no smoking and using grounding devices, and proper personal protective equipment.
- "NO SMOKING" signs are displayed at the entrance to the facility and at loading and unloading areas. Smoking is not permitted in the facility except in designated areas.
- All waste storage tanks are provided with visual level controls (Tanks 10, 11, 12, 13, 15, 16, 17 and 18) and/or high level monitoring alarms (Tanks 10, 11, 12, 13, 14, 30 and 33). In the event that the liquid level rises to the high level set point, facility personnel will be alerted to the high level

condition. This control feature prevents the àccidental overfilling of the storage tanks. Also, all waste storage tanks are located within secondary containment areas.

- Loading/Unloading areas are equipped with spill cleanup emergency equipment.
- An operator is present during the entire loading/unloading operation to ensure that the tank volume is not exceeded and the transfer is safely accomplished.
- Following actual loading or unloading, any spills or leaks from the transfer discharge piping are cleaned up and disposed of properly. This is minimized by the placement of collection trays beneath hose connections.

4.2.3 Container Shipments - Loading/Unloading

Trucks arriving with containers of hazardous wastes are off loaded at the Building L loading dock or in interior loading/unloading areas in Buildings A B, and D. These areas are shown on Plans 8, 9 and 11.

The areas in B and D can be provided with a portable ramp dock and the area in Building A is provided with a truck dock; these are used for the loading/unloading of various wastes. In addition, trucks in Building A, B, or D may be off-loaded or loaded using forklift trucks. Any spilled materials are contained within the immediate areas of the respective load/unloading areas for control and cleanup.

Containerized hazardous waste loading/unloading operations are performed by trained, qualified operations personnel and are accomplished as described in Section 3.00. The following safeguards are provided during container unloading:

- Upon arrival at the facility the truck driver checks in at the receiving office.
- Paperwork is reviewed as indicated in the waste acceptance procedures in the Waste Analysis Plan.
- The truck proceeds to an appropriate loading/unloading and sampling area.

- For incoming shipments, an operator transports the containerized waste and relocates them to sampling/staging areas in Buildings A, B, C, D or L.
- During all loading/unloading operations, absorbent and empty open-head drums are available. In the event a spill occurs this material will be available for cleanup.
- Smoking, open flames, welding, metal working, or other activities which may initiate a spark are not allowed in the vicinity of flammable or combustible hazardous wastes.
- All incoming containers of hazardous waste are visually inspected upon receipt for general container condition and proper labeling. In the event a container is noted to be leaking or appears to be unsound, the contents are transferred to another container, or the container is overpacked.
- During all moving and storage operations, containers of hazardous waste affected are maintained securely closed.

4.3 Container Storage

4.3.1 General Storage Operations

Wastes received in containers are stored on pallets, except for roll-offs and portable totes. Plans 9, 10 and 11 show the arrangement of container storage areas at Safety-Kleen Systems, Inc.. Table 3-2 provides a summary of these areas. Containers on pallets are stored in orderly rows in accordance with aisle space requirements under 40 CFR 265.35.

- Flammables (flashpoint less than 100°F) stored in the flammables storage area in Building C (see Plan 10). The maximum stacking height is 2 pallets high with a minimum aisle space of 2 feet. The flammable storage area is equipped with a dry chemical fire suppression system with heat sensitive activation.

- Halogenated, combustible (flashpoint at or above 100°F) and other compatible liquids and solids are stored in the containment areas along the northwest wall of Building C (see Plan 10). The maximum stacking height is 3 pallets high with a minimum aisle space of 2 feet.
- Solidified, non-flammable wastes are stored in Building D (see Plan 11). The maximum stacking height is 3 pallets high with a minimum aisle space of 2 feet.
- Waste oils and oily wastes (rags, filters, debris, etc.) are stored in a containment area in Building D (see Plan 11). The maximum stacking height is 3 pallets high with a minimum aisle space of 2 feet.
- Roll-offs of solidified wastes are stored in Building B and the Mix Tub Pad.

4.3.2 Secondary Containment/Run-On Protection

The RIDEM hazardous waste regulations require that container storage areas for containers holding free liquids be provided with a secondary containment system capable of holding 10% of the volume of the containers or the volume of the largest container, whichever is greater. The regulations also require that run-on into a containment system be prevented or the system have sufficient excess capacity in addition to the required 10% to contain run-on which might enter the system.

Since all container storage areas are located within the facility Buildings, run-off of precipitation is not an issue. All container storage areas, except for solids storage (Building D and roll-offs) are provided with secondary containment. Solids in Building D and in Building B (roll-offs) contain no free liquids. Containment is provided by means of concrete base surrounded by concrete containment berms/ramps. Waste materials accepted and stored at Safety-Kleen Systems, Inc. are compatible with concrete.

Table 4.1 provides a summary of each storage area including waste type, maximum storage volume dimensions, berm height, and spill containment volume. Plans 9 and 10 show these areas.

4.3.3 Separation of Incompatibles

Essentially most wastes authorized for acceptance at Safety-Kleen Systems, Inc. are compatible. This is confirmed for incoming wastes based on a review of the manifest information and waste acceptance screening analyses. In the event an incoming shipment is found to be incompatible with other wastes stored at Safety-Kleen Systems, Inc., the material will be isolated from any incompatible wastes and either processed with compatible materials or shipped to an authorized off site facility or returned to the generator.

4.3.4 Precautions Relating to Flammable Wastes

All storage and handling operations involving flammable hazardous wastes are conducted so as to prevent accidental ignition of said wastes. Flammable wastes in containers are stored in a separate flammables storage area in Building C which is provided with an automated dry chemical fire suppression system and a continuous air venting system to eliminate vapor buildup. Consolidation of flammable liquids is conducted in a flammable storage room located in Building C.

4.4 Tank Storage

This section includes a review of tank design and construction, tank secondary containment capacity and tank repair procedures.

4.4.1 Tank Design and Construction Information

The information provided in this section addresses the RIDEM hazardous waste regulations regarding tank design and construction. These regulations apply to facilities which treat or store hazardous waste in tanks.

Table 4.2 provides a summary of each of the tank groups used in the waste liquids storage and recycling/treatment operations, including ID number, use, status, capacity, design standards, materials of construction, dimensions and age. All new tanks will comply with all applicable standards and be installed according to such standards.

All waste storage and recycling/treatment tanks at Safety-Kleen Systems, Inc. are above ground and are constructed of materials fully compatible with the materials contained within them. The locations of tanks are shown on Plans 9, 10, and 11. A Plan for the tanks is shown on Plans 12 and 13.

Although the tanks are constructed of materials which are designed to be compatible with the stored material, potential problems are identified through routine inspections. Areas around the storage tanks pumps and piping are inspected daily for signs of leakage and any other indications that deterioration may be occurring.

Waste is fed to tanks either from another tank, from a bulk tank truck, from a processing unit or from containers. Facility tanks and associated piping are as shown on Plans 12 and 13. Appropriate hose connectors are made to allow transfer of liquid to the desired tank. All storage tanks operate at atmospheric pressure and therefore, no pressure control systems are required.

For tanks that are used to store ignitable wastes (Tanks #10, #11, #12, #13 and #14 in Building C) precautions are taken during tank loading and unloading operations as described above to eliminate the possibility of tank overfilling and, as described in Section 4.22, to eliminate ignition sources and the buildup of static electrical charges. Ignitable waste in tank storage is protected from any material or conditions that may cause the waste to ignite or react. This is achieved by storing only wastes that are compatible in the same tanks; by eliminating all sources of possible ignition from the vicinity of tanks and ancillary equipment; by ensuring the tank material of construction is compatible with the waste; and by managing tanks in accordance with Table 2.3.2.1.1 through Table 2.3.2.1.5 and Table 2.3.2.2.1 of the National Fire Protection Association's Flammable and Combustible Liquids Code 30, 2000 Edition.

"No Smoking" signs are posted throughout the facility at all tanks and ancillary equipment locations. As it relates to the existing and/or proposed tanks at Safety-Kleen Systems, Inc. relative to their location in respect to property lines, public ways and important buildings on the same property, the tanks will be in accordance with Tables

2.3.2.1.1(a) and 2.3.2.1.1(b) and have: (1) a minimum distance from property line that is or can be built upon, including the opposite side of a public way of 15 feet; and (2) the minimum distance from nearest side of any public way or from nearest important building on the same property of 5 feet.

4.4.2 Tank Containment

This section reviews the capacities and layout of tank secondary containment systems for all of the storage tanks at Safety-Kleen Systems, Inc.

The RIDEM regulations, by reference to 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264 Subpart J), require secondary containment systems to contain 100 percent of the capacity of the largest tank within its boundary. Exterior containment areas must have additional volume to contain precipitation. Since all tanks and tank containment areas at Safety-Kleen Systems, Inc. are interior, precipitation is eliminated. A summary of tank containment areas at Safety-Kleen Systems, Inc. along with tank volumes, area dimensions, berm height and containment volumes is provided in Table 4-3.

4.4.3 Piping

Piping between hazardous waste tanks and bulk loading/unloading areas are within the containment area of the tank group or building floor area. Piping from Buildings B, C and D to the rail car siding along L-1 is aboveground steel piping and is only used to transfer waste to tank cars.

4.4.4 Tank Decontamination

Decontamination of tanks is generally not necessary. In the event it does become necessary to decontaminate a tank, the following procedures are observed:

- The contents of the tank are completely removed by pumping through the appropriate piping and treatment system.
- A hatch cover is opened and the interior of the tank is visually inspected.

- Any accumulated sludge is removed and containerized.
- The tank interior is pressure washed, generally with a hot water-detergent solution, then rinsed with water.
- The wash water and rinsate is pumped through the piping system to assure it is also decontaminated. After the rinsate is transferred, the piping is emptied by air purging.
- All washwater and rinsate is collected in either another tank, in containers or transferred to a tank truck, tested and either processed on site or shipped to an authorized off-site facility.

If it becomes necessary to enter the tank, Safety-Kleen Systems, Inc. personnel follow the procedures outlined in OSHA's confined space entry regulations. Decontamination is determined to be complete in accordance with the procedures set forth in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268.45) (i.e., high pressure water spray technology to a clean metal surface). A clean surface is determined based on the definition of such in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268.45) (i.e., the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil or waste consisting of light shadows, slight streaks, or minor discolorations).

4.5 Air Emissions Standards for Process Units, Equipment Leaks, Tanks and Containers

4.5.1 Regulatory Applicability

250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264 Subparts AA, BB, and CC) require the monitoring and control of organic emissions from certain hazardous waste storage and processing equipment. The requirements of these regulatory sections are reviewed in this section. Because RIDEM is not delegated for Subparts AA, BB and CC, the application was also submitted to USEPA.

250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264 Subpart BB) applies

to the organic hazardous waste (not including waste oil) transfer operations; including transfer pumps, pressure relief devices and valves which contact hazardous wastes with at least 10 percent organic concentrations. The approximate locations, identification numbers (tank numbers) and type of equipment are shown on facility drawings. The equipment subject to Subpart BB include tanks 10, 11, 12, 13, 14, and all pumps and pipe flanges associated with these tanks. The applicable regulations 250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264.1052 and 264.1057) require monitoring and inspections to detect leaks. These inspections are addressed in the Inspection Schedule.

250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264 Subpart CC) applies to organic hazardous waste tank and container storage operations at Safety-Kleen Systems, Inc., specifically, to tanks and containers which contain wastes with an average volatile organic concentration of 500 ppmw or greater. Tanks and containers at Safety-Kleen Systems, Inc. to which Subpart CC applies include the organics hazardous waste blending and storage tanks 10, 11, 12, 13, 14, and containers holding flammable, halogenated and combustible wastes with a volatile organic concentration of 500 ppmw or greater. To meet the requirements of Subpart CC, storage tank operations at Safety-Kleen Systems, Inc. are vented through activated carbon emission control systems. Containers holding waste subject to 250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264 Subpart CC) will meet the requirements of 250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264.1086). Wastes in storage will be maintained in closed containers that comply with applicable US DOT packaging requirements.

4.5.2 Equipment Survey

Safety-Kleen Systems, Inc. currently has a dual activated carbon filtration system in place to treat exhaust air from organic emission sources. The organics blending tanks (Tanks 14) and the four solvent storage tanks (Tanks 10, 11, 12, and 13) are vented through the dual activated carbon filtration system.

Operations in the aerosol can processing rooms will be provided with ventilation hoods to capture emissions from these operations. The ventilation rates from these processing rooms is estimated to be 225 cfm per room (as per NFPA 30) provided by mechanical equipment. Preliminary estimated volatile organic compound emissions are less than one pound per hour before controls while operations are being conducted. If required by 250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 264 Subpart CC) and RIDEM air pollution control regulations, the exhaust air from these enclosures will be controlled using an emission control system conforming to 250-RICR-140-10-1(1.10.2.56) (which corresponds to 40 CFR 2641033).

A facility wide survey of equipment will be conducted to determine those items which are covered under these regulations.

It should be noted that items will only be included if they come in contact with or contain hazardous waste. Equipment which only has contact with materials such as air or water will not be included. In addition, the above items will not be included if they only have contact with the recycled product. For each piece of equipment included in the survey, an equipment number will be designated for record keeping purposes.

4.6 Power and Equipment Failure

4.6.1 Power Failure

All wastes at Safety-Kleen Systems, Inc. are pumped into storage and recycling/treatment tanks with an operator in attendance. In the event of power failure, all waste flow will gradually stop and no overflow will take place.

Also, during a power failure, the agitation (mixing) in organics blending tanks would stop with no adverse effects. Feed pumps would also stop so no further materials would be combined. In addition, during power outage, all other operations at Safety-Kleen Systems, Inc. would shut down with no resulting release or adverse effects. These operations include the filter shredder, the drum compactor, the aerosol can processing unit and the fluorescent bulb dismantling unit, all of which would cease operation during

a power outage. Ventilation and emission control systems servicing certain of these operations would also cease operating however, emissions will also have ceased.

Alternate power is not required because, as stated above, if power is interrupted all operations at Safety-Kleen Systems, Inc. would stop except for the movement of containerized waste by fork truck.

4.6.2 Equipment Failure

Potential hazards envisioned regarding equipment failure at the facility would involve a tank, hose-connection or pipeline rupture. Since all tanks, pumps and piping are located within secondary containment structures or within contained building areas, such an event would not result in a release to the environment.

Accidents could also occur involving a forklift truck in the container storage areas or during vehicle loading/unloading operations. In the event of such an occurrence, several containers of waste could potentially fall off the pallet being transported. Immediate action will be initiated in accordance with the Contingency Plan and Preparedness and Prevention Systems, Section 10, to contain and clean up any such spills.

4.7 Protection of Personnel Exposure to Wastes

Safety-Kleen Systems, Inc. provides training and safety equipment to each employee for personal protective purposes. Each employee is also supplied with respirators, work clothing, gloves, boots, and other supplies. Employees are trained in proper use of this equipment and in proper industrial hygiene practices.

4.8 Traffic Pattern Information

4.8.1 Estimated Volume

Bulk trucks, box trailers, van trucks and other appropriate transport vehicles transport wastes to Safety-Kleen Systems, Inc. The traffic volume bringing wastes to Safety-Kleen Systems, Inc. is approximately 20 trucks per day on the average. The traffic

volume on Park Avenue is typically moderate and consists of automobiles and trucks. The traffic volume on Mill Street leading to Safety-Kleen Systems, Inc. is light and consists of automobiles and trucks in route to the Mill complex, a portion of which is attributable to Safety-Kleen Systems, Inc.

This area of Cranston is moderately industrialized. The public roads leading from major highways (Interstate 95 and Route 10) to Safety-Kleen Systems, Inc. are a mix of residential and commercial routes.

Both Mill Street and the main parking lot in front of the Safety-Kleen Systems, Inc. facility is a two-way street. Because other businesses are also present in the Mill Complex, of which Safety-Kleen Systems, Inc. is a part, there is a light flow of both car and truck traffic through the entrance gate to the main parking lot, and within the parking lots.

4.8.2 Traffic Patterns

Access to Safety-Kleen Systems, Inc. is from Interstate 95 to Route 10 east and then onto Park Avenue. After traveling a distance of approximately 1/2 mile on Park Avenue, a right hand turn is made onto Mill Street. The entrance to the Safety-Kleen Systems, Inc. facility is located approximately 1/8 mile south of Park Avenue. Two current intersections with stop signs are located along Mill Street, the current access road to Safety-Kleen Systems, Inc. In addition, a stop sign is located at the end of Mill Street as it intersects with Park Avenue. Typical traffic patterns to and from Safety-Kleen Systems, Inc. are shown on Figure 4.1.

4.8.3 Access Road Construction

Mill Street is used as a primary access road by Safety-Kleen Systems, Inc. as well as by other firms that occupy the Mill Complex. Mill Street is constructed of bituminous asphalt which can withstand loading from vehicles delivering waste to the Safety-Kleen Systems, Inc. facility. The maximum weight of any vehicle delivering waste to transporting waste from Safety-Kleen Systems, Inc. is 80,000 pounds.

4.9 Seismic Considerations

Since Safety-Kleen Systems, Inc. is an existing facility, it is not subject to the seismic standards of 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.18). In addition, Safety-Kleen Systems, Inc. is located within the State of Rhode Island which is not an area listed in 250-RICR-140-10-1(1.10.2.17) (which corresponds to Appendix VI of Part 264 (Political Jurisdictions in which compliance with 264.18(a)) must be demonstrated) and, therefore, would not be subject to the seismic standards even if it were a new facility.

4.10 Floodplain Information

4.10.1 General

Safety-Kleen Systems, Inc. is located northwest of the Pawtuxet River and is within the 100 year floodplain. Plan 3 shows the extent of the 100 year floodplain at Safety-Kleen Systems, Inc. which was obtained from the Federal Flood Insurance Administration (FEMA) 100 Year Floodplain Map for the area (FEMA Community Panel #445396-0007B). The FEMA map shows that Safety-Kleen Systems, Inc. is within the 100 year floodplain of the Pawtuxet River. The 100 year floodplain elevation is 17.2 feet in this area. The lowest floor elevations are approximately 2.7 feet below this level. A detailed engineering review was conducted to verify the 100-year floodplain level and location and to verify the building floor elevations. This study was completed in July 2012 and was included as Appendix 4-1 in the facility permit renewal in June 2012. The assumptions and basis of the technical review remain relevant and appropriate under the current June 2020 renewal submittal to the RIDEM.

RI DEM regulations, 250-RICR-140-10-1(1.10.2.18)) (which corresponds to 40 CFR 264.18(b)) and 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 270.14(b)(11)(iv)), require that either procedures be developed to remove stored hazardous waste materials from the floodplain or that flood protection schemes be developed to prevent washout of these materials during a 100 year flood event.

In the following sections, procedures are provided to indicate and ensure that the washout of hazardous wastes stored in containers or tanks at Safety-Kleen Systems, Inc. does not occur.

4.10.2 Container Storage

a. Drum Storage Areas

The container storage areas in Buildings B, C and D at Safety-Kleen Systems, Inc. are located within the 100 year floodplain. The building floor elevations are at approximate elevations 14.5 to 16 feet which makes them up to 2.7 feet below the 100 year flood stage of 17.2 feet.

RI DEM regulation 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 270.14(b)(11)(iv))requires that either procedures be developed to remove stored hazardous waste materials from the floodplain or that flood protection schemes be developed to prevent washout of these materials during a 100 year flood. Washout is defined by federal regulations as "the movement of hazardous waste from the active portion of the facility as a result of flooding." If a flood protection scheme is chosen, the owner/operator must submit engineering analysis to indicate "the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100 year flood", and must provide engineering studies demonstrating that washout will be prevented. A full engineering review is provided in Appendix 4-1.

In the following sections, engineering computations are provided which demonstrate the acceptability of certain flood protection measures to prevent washout of the hazardous waste in container storage areas at Safety-Kleen Systems, Inc. The expected flood forces are computed then the suitability if certain flood protection measures is analyzed. The computations and analysis demonstrate that a minimum of effort is required to prevent the washout of waste stored in containers at Safety-Kleen Systems, Inc. Provided that the drummed materials are stored in the manner described, the forces resulting from a 100 year flood will not result in washout of these drums or this material.

b. Flood Forces Computed

All container storage areas are located within building at Safety-Kleen Systems, Inc. Contact with floodwaters may occur through seepage of floodwaters through the building walls and cracks in the doorways. This will result in only static floodwater within the buildings. Hydrodynamic floodwater forces are expected to be negligible (See Appendix 4-1).

As previously indicated, the floors of the container storage areas are approximately 2.7 feet below the 100 year floodplain elevation. Assuming the flood waters attain the maximum flood stage inside the buildings in which the storage areas are located, portions of the drums in storage will be submerged. Since all containers are stored on pallets which are approximately six (6) inches off of the floor, waste drums will be subject to a hydrostatic force due to being immersed in approximately 2.2 feet of water.

The hydrostatic force exerted on the drum may be calculated as the weight of the volume of water displaced by the submerged portion of the drum. A typical drum is twenty-three (23) inches in diameter (0.96 feet radius) and thirty-four (34) inches in height (outside dimensions). The volume of water displaced by a drum submersed in 2.2 feet of water is calculated below:

- Volume of water displaced = π x (0.96 ft.)^2 x (2.2 ft.) x (7.48 gals. of water/cu. ft.) = approximately 50 gallons.
- Fifty (50) gallons of water weighs about 417 pounds (50 gallons x 8.34 pounds/gallon of water). Therefore, a hydrostatic force of 417 pounds acts to uplift the submerged waste drum.

Although hydrodynamic forces are expected to be negligible, there may be sufficient water movement to cause movement if the drums are uplifted by the flood waters. Therefore, measures to prevent drum uplift will be implemented in the event of a flood warning.

c. Flood Protection Measures

Drum uplift will be prevented if the weight of the drum and its contents exceeds the uplift forces. The uplift forces have been calculated above. During a 100 year flood event, at the established flood stage each submerged drum will be subject to an uplift force of 417 pounds. The weight of the drum and its contents, for the types of wastes in storage are computed below. It is assumed that drums are at least seventy-five (75) percent full, containing at least 41 gallons of waste material. Drums typically contain at least 50 gallons of waste.

Drum weight (full) includes the weight of the drum and its contents. The empty drums with lids typically weigh about forty-five (45) pounds. The range of materials in storage from light to heavy (waste oil and waste chlorinated solvents), have typical unit weights (specific gravities) of 0.8 and 1.3, respectively. Forty-one (41) gallons of waste oil or chlorinated solvents weighs 274 lbs. and 445 lbs. respectively. Adding the weight of the drum, the total weight equals:

- Gross weight of Waste Oil Drum (75% full) = 319 lbs.
- Gross weight of Waste Chlorinated Solvent Drum (75% full) = 490 pounds.

Drums with fifty (50) gallons of waste material weigh:

- Gross weight of Waste Oil Drum (91% full) = 379 pounds.
- Gross weight of Waste Chlorinated Solvent Drum (91% full) = 587 pounds.

When the submerged waste oil drum is either 75% or 91% full, the uplift forces will exceed the weight of the drum and its content while the weight of the waste chlorinated solvent drum (75% full) will exceed the uplift force.

Even though this engineering analysis and past experience have determined that, through established container management procedures and by meeting the requirements of 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 270.14(b)(11)(iv)(A) and (B)), washout of hazardous waste would be prevented, Safety-Kleen is taking additional steps to add procedures to move containers of waste outside

of the 100-year flood forces in the event of a pending flood. These measures are in accordance with 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 270.14(b)(11)(iv)(C)).

During periods of expected flooding, Safety-Kleen will constantly monitor the National Oceanic and Atmospheric Administration Flood Watch website, local weather services and/or other potential sources of flood predictions. In the event of a flood event warning that predicts a river level reaching the lowest point of entry into the building, the following measures will be taken at Safety-Kleen Systems, Inc.:

- Notifications will be made to cancel any further deliveries of waste to the facility
- All exterior doorways will be securely shut and sandbagged to a height of at least 3 feet. Portable pumps will be used to remove water seepage from inside the building. If water levels rise above the sandbag level, the doors will then be opened. This will allow the floor to flood. At that time there will be water on both sides of the walls and doors and they will be stable.
- Drums of waste located within the 100-year floodplain will be re-located to the Building L container storage areas which are outside of the 100-year floodplain. Any water reactive materials such as batteries will be moved first, followed by the lighter flammable wastes and emptied containers, then followed by the heavier chlorinated solvents.
- All other loose items such as pans, hoses, emergency equipment, etc. will be placed on pallets and located above pallets of stacked drums.

4.10.3 Tanks

The bottom of the waste oil tanks # 31, 32, solvent tank 10 and the organics/blending/storage tank 14 are all at least 2.7 feet above the floor. The non-hazardous 6,000 gallon antifreeze tank 33 is secured with strapping. The top of the secondary containment for used oil tank 30 is above 17.2 feet and the tank is anchored. Therefore, 100 year flood waters will not affect these tanks.

The bottoms of solvent tanks 11, 12 and 13 would be immersed in 0.65 feet of water during a 100 year flood event. The weight of each tank is greater than the weight of the water displaced and therefore displacement will not occur even if these tanks are empty. No special precautions need to be taken except to ensure all piping valves are tightly closed and end plugs are in place in all hose connection fittings.

See Appendix 4.1 for the full 100-year floodplain engineering analysis.

Table 4.1

CONTAINER STORAGE AREAS - CONTAINMENT VOLUMES

Bldg	Waste Type	Max. Waste Volume (Gal.)	Required Containment Volume (10%) (Gal.)	Floor Area (sq. ft.)	Berm Height (ft.)	Containment Volume Provided (Gal.)
C	Flammables (NFPA Class IB and IC)	11,000	1,100	1,125	0.33	2,777 (gross)
		Deductions → Ramps – 56 gal Pallets – 318 gal Net Containment Provided – 2403 gallons				
C	Halogenated/Toxic/Ignitable and other Compatibles	43,500 (1)	4,350 (2)	3,109	0.4	9,302 (gross)
		Deductions → Ramps – 540 gal Pallets – 966 gal Columns – 60 gal. Filter Pan – 120 gal Fuel Blend Tank Supports – 96 gallons Net Containment Provided – 7,520 gallons				
B	Non-Hazardous Waste Oil Filters	11,000	1100	840	0.4	2,513 (gross)
		Deductions → Ramp – 40 gal Pallets – 318 gal Net Containment Provided – 2,155 gallons				
B	Waste Motor Oils, Antifreeze, Oily Debris, Rags, Etc.	5,500	NA	840	0.4	2,513 (gross)
		Deductions → Ramps – 81 gal Pallets – 318 gal Net Containment Provided – 2,114 gallons				
B	Roll-off (solids)	12,120	none	NA	NA	NA
D	Non-Flammable Solids	5,280	none	NA	NA	NA
L	All (Emergency Use Only)	71,000	7,100	11,172	0.33	19,900

(1) This includes Tank 14 (located in this area) that has a capacity of 5,000 gallons.

(2) Includes 10% of Tank 14 contents.

NOTE: Building L storage area will only be used in an emergency to evacuate containers from Buildings B, C & D.

Table 4.2

WASTE STORAGE TANK CHARACTERISTICS

Tank	Contents	Capacity	Location	Specifications
10	Spent Solvents - Mineral Spirits	2,500	Building C	Carbon Steel, UL 142
11	Spent Solvents - Mineral Spirits	2,500	Building C	Carbon Steel, UL 142
12	Non-Hazardous Wastewater	2,500	Building C	Carbon Steel, UL 142
13	Non-Hazardous Wastewater	2,500	Building C	Carbon Steel, UL 142
14	Non-Hazardous Wastewater	5,000	Building C	Carbon Steel, UL 142
15	Non-Hazardous or Used Oil	1,500	Building C	Carbon Steel, UL 142
16	Non-Hazardous or Used Oil	2,500	Building C	Carbon Steel, UL 142
17	Non-Hazardous or Used Oil	5,000	Building C	Carbon Steel, UL 142
18	Non-Hazardous or Used Oil	5,000	Building C	Carbon Steel, UL 142
30	Used Oil	12,000	Building B	Carbon Steel, UL 142
33	Waste Antifreeze/Ethylene Glycol/Wastewater	6,000	Building B	HDPE

Table 4.3
TANK STORAGE AREAS
CONTAINMENT VOLUMES

Building	Tank Group	Max. Waste Volume (gallons)	Volume of largest tank (Required Containment Volume) (gallons)	Base Area (square feet)	Dike Height (feet)	Containment Volume Provided (gallons)
C	Solvent Tanks Nos. 10, 11, 12, 13	10,000	2,500	299.5	1.33	2,980 (gross)
		Deductions → Posts – 79.6 gal Tank Supports – 5.3 gal Tank Support Base Plates – 1.8 gal Net Containment Provided – 2893 gallons				
C	Blending Tank No. 14	5,000(1)	5,000	3,109(2)	0.4	9,302 (gross) 7,520 (net)(3)
B	Horizontal Waste Oil Tank	12,000	12,000	441	4	13,200

(1) This area also contains an additional 38,500 gallons in containerized waste.

(2) The base area for the blending tank is embraced in the containment storage area on the northwest wall of Building C that serves both containerized storage and tank storage.

(3) For deductions, see Table 4.1, Building C - Halogenated/Toxic/Ignitable and other Compatibles.

APPENDIX 4-1

100-YEAR FLOODPLAIN ENGINEERING ANALYSIS OF HYDRODYNAMIC AND HYDROSTATIC FORCES ON THE FACILITY AND FACILITY STRUCTURAL ANALYSIS IN ACCORDANCE WITH 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 270.14(b)(11)(iv)(A) and (B))

SAGE
ENVIRONMENTAL

July 3, 2012

Mr. Greg Chiappini
Safety-Kleen Systems, Inc.
341 Patterson School Road
Grove City, PA 16127

RE: 100-Year Flood Assessment
Safety-Kleen Inc.
167 Mill Street
Cranston, Rhode Island

Greg,

As requested, *SAGE* Environmental, Inc. (*SAGE*) has conducted a flood assessment consistent with the requirements of 40 CFR 270.14(b)(11)(iv).

"Owners and operators of facilities located in the 100-year flood plain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site a consequence of a 100-year flood." and
(B) "Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g. floodwalls, dikes) at the facility and how these will prevent wash-out."

A summary of engineering efforts (work) conducted and conclusions derived therefrom follows in this letter report.

The work conducted consisted of essentially three parts:

1) Performance of an elevation survey by a registered land surveyor to determine the elevation of building features (e.g., entry thresholds, floor and containment structures) relative to both the 100-year flood elevation determined by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) and utilizing site-specific survey data, a comparison of building features relative to an elevation contour equal to the FIRM 100-year flood elevation.

2) A geotechnical and geohydrological assessment of the Safety-Kleen building ability to withstand a 100-year flood event. (It should be noted that all permitted operational units more specifically, hazardous waste storage tanks and solvent distillation units are located indoors within the limits of the various site buildings.)

172 Armistice Blvd.
Pawtucket, Rhode Island 02860
401-723-9900
FAX 401-723-9973
www.sageenvironmental.net

3) A cursory evaluation of the hydrostatic stability with respect to buoyant forces of the operational units in a 100-year flood event.

Elevation Survey

An elevation survey was performed during the week of June 23, 2012 by Alfred W. DiOrio, RLS, Inc. (DiOrio). DiOrio performed topographical observations at prescribed locations including entry thresholds, top of containment areas, floor of containment areas as well as various floor and other select locations. The elevation data obtained was depicted on mapping provided by Safety-Kleen and is provided in **Figure 1**. The figure contains a table identifying the various locations where elevation data was recorded. DiOrio also scaled the FIRM flood zone line from the FEMA mapping as represented on **Figure 1**. In addition, using the site-specific elevation data, an elevation contour equal to the 17.2 foot base flood elevation indicated in the FIRM mapping was depicted in the figure to show what portions of the facility would be affected in a 100-year flood event. As shown in the figure, Building L is the only site building with a floor elevation above the 17.2 foot base flood elevation. A copy of DiOrio's 26 June 2012 final report is included in **Appendix 1**. **Appendix 1** also provides a copy of the data summary and original AutoCad plan. **Figure 1** was developed by *SAGE* using the DiOrio plan as a base map. Minor edits were made to the original drawing to present the data.

Geotechnical and Geohydrological Assessment

Geotechnical and geohydrological assessment services were provided by Paul B. Aldinger Associates (Aldinger). The elevation data provided in **Figure 1** was utilized by Aldinger in completing the assessment.

The scope of work performed by Aldinger included the following:

1. An elevation survey of the building floors, doorways, and interior/exterior walls was conducted and the results of the survey reviewed relative to FEMA flood maps and other relevant publications;
2. An existing conditions survey of the Safety-Kleen building exterior was performed and included the observation and documentation of the general conditions of the building walls, noting specifically the wall type, thickness, wall support and locating and physically measuring all opening such as doors, windows, etc. on a building sketch. Existing conditions were documented with photographs;
3. All available flood studies were reviewed to estimate the river's flood flow, flow velocity and the hydrodynamic force on the building walls. In addition, the building walls were analyzed to determine their capacity to withstand the hydrodynamic force caused by flood waters; and
4. A preliminary assessment report based on our review of the existing conditions and a preliminary wall stability assessment was prepared. Following completion of the field elevations, condition surveys and engineering analyses, a final assessment report, which includes the results of analyses, the existing conditions

survey as well as our assessment of the structure's ability to withstand a 100-year flooding event, was developed.

A copy of the Aldinger report is included as **Appendix 2**. Aldinger concluded that the buildings containing the Safety-Kleen facility are adjacent to the Pawtuxet River. The FEMA Flood Insurance Rate Map for Providence County, Rhode Island covers the vicinity of the site and indicates that the flood elevation for the site is approximately +17.2 feet. The results of the site survey completed for this study indicate that the floor elevation of Buildings A, B, C, D, and M vary from +14.5 to +16.0. This indicates that these buildings within the Safety-Kleen facility are lower than the 100-year flood elevation. Accordingly, Buildings A, B, C, D, and M the Safety-Kleen facility will be subjected to floodwaters during a 100-year storm in the adjacent Pawtuxet River.

We have made an assessment of the stability of these building walls and have determined the following:

a. The brick walls are generally 12 inches thick and would be capable of resisting the floodwaters to the flood level, including the hydrodynamic forces from the river flows.
b. The metal doors and overhead doors within the exterior walls are not water tight and will allow some water to pass inside. Our initial review of these doors indicates that they will not likely be able to resist the force of the full flood loading. However, we understand that these doors will be sandbagged to two or three feet and any leakage pumped out. This will continue unless the water level exceeds this level and then the floor will be allowed to flood. At that time there will be water on both sides of these walls and doors and they will be stable.

Hydrostatic Analysis of Operational Units (Tanks 10, 11, 12, 13, 14 and 30)

SAGE performed a cursory evaluation of potential buoyancy effects of 100-year flood events on the above six hazardous waste storage tanks. The evaluation included a comparison of topographic data of floor elevations beneath vessels to measurements of the distance between the floor and tank bottom.

Table 1 below summarizes elevation information obtained and also includes a summary of tank specific information provided by Safety-Kleen.

Table 1

Tank #	Capacity (gals)	Description	Contents	Dimensions	Floor Location Reference	Elevation	Distance from Bottom of Tank to Floor	Elevation of Tank Bottom	Elevation Above/Below BFE of 17.2 ft.
10	2500	Steel conical bottom storage tank	Spent chlorinated solvent	5.5'dia. x 14' ht.	131	14.55	4.0	18.55	+1.35
11	2500	Steel vertical storage tank with dished heads	Spent chlorinated solvent	5.5'dia. x 14' ht.	131	14.55	2.0	16.55	(-0.65)
12	2500	Steel vertical storage tank with dished heads	Spent chlorinated solvent	5.5'dia. x 14' ht.	131	14.55	2.0	16.55	(-0.65)
13	2500	Steel vertical storage tank with dished heads	Spent chlorinated solvent	7'dia. x 10.5' ht.	131	14.55	2.0	16.55	(-0.65)
14	5000	Steel horizontal tank with dished heads	Waste flammable liquid	8'dia. x 13' long	128	15.11	3.0	18.11	+0.91
30	12.000	Steel horizontal tank with integral steel containment	Waste Oil	10'dia. x 21' long	151	15.98	NA	NA	(-1.22)

As shown in **Table 1** above, the bottoms of Tank 10 and Tank 14 are above the 1-year base flood elevation and therefore not subject to buoyancy forces. The remaining four tanks, Tanks 11, 12, 13 and 30, are potentially subject to buoyant forces in a flood event.

In an effort to evaluate the potential effects of buoyancy in a 100-year flood event, *SAGE* performed a cursory evaluation of Tanks 11, 12 and 13 as follows with information furnished by Safety-Kleen.

As shown in **Table 1**, Tanks 11, 12 and 13 are 5.5 feet in diameter and 14 feet in length. Wall thickness is reportedly 0.25 inches. As indicated in **Table 1**, tanks have dished heads; however, for the purposes of computations, they were assumed to be cylindrical.

As shown in **Table 1**, in a 100-year flood, the bottoms of Tanks 11, 12 and 13 would be immersed in 0.65 feet of water resulting in a weight of water displaced equal to the volume of the vessel immersed.

Equation 1: $\text{Volume} = \frac{\pi d^2}{4} L$ for diameter (D) and length (L) in feet and and a water density of 8.34 lbs/gal Equation 1 yields a weight of displacement of

$$\text{Weight of displaced water} = \frac{\pi (5.5\ \text{ft})^2}{4} (0.65\ \text{ft}) \left(\frac{7.48\ \text{gal}}{\text{ft}^3}\right) \left(\frac{8.34\ \text{lbs}}{\text{gal}}\right)$$

Weight of water displaced = 963 lb

An approximation of the tank weight neglecting the weight of the dished heads, any structural supports, valves, fittings and connected piping is

Volume of metal = $\left[\pi r_1^2 - \pi r_2^2 \right] L$ $r_1 > r_2$

$r_2 = d/2 = 2.75$ feet

Or $r_1 = r_2 + \text{tank thickness}$

$r_1 = 2.75\ \text{ft} + 0.25/12$

$\pi (r_1^2 - r_2^2) L$ $r_1 = 2.77$

Volume of metal = $\pi \left[(2.77\ \text{ft})^2 - (2.75\ \text{ft})^2 \right] 14\ \text{ft}$

$\pi (0.1104\ \text{ft}^2)(14\ \text{ft})$

Volume of metal= 4.8 ft^3 Mild steel has a density of $\rho_{ss} = 490\ \text{lb/ft}^3$ or 7.85 g/cm^3

Weight of tank = $V\rho_{ss}$

$$= (4.8\ ft^3)\left(\frac{490\ lb}{ft^3}\right)$$

$$= 2{,}352\ lbs$$

The weight of the tank is greater than the weight of water displaced and therefore the tank will not lift.

As indicated in **Table 1**, Tank 30 is a 12,000-gallon, horizontal, steel storage tank with integral containment. Manufacturer's literature is included in **Appendix 3**. According to the manufacturer, the complete tank system weighs 23,000 lbs. As shown in the appendix, the tank containment occupies a floor area of 441 ft^2 (36.9′ by 12′).

Survey data indicates the elevation of the floor of the containment is 15.98 ft (refer to **Table 1**). Correcting the containment floor elevation for the 0.25 inch containment thickness yields a floor elevation of 15.93 feet. During a 100-year flood event, the floor would potentially be subject to 17.2 ft – 15.93 ft or 1.27 ft of standing water. The buoyant force exerted on the tank system is equivalent to

$$(1.27\ ft)(441\ ft^2)\left(\frac{8.34\ lb}{gal}\right)\left(\frac{7.48\ gal}{ft^3}\right)$$

or 35,000 lb. This weight of displaced water is greater than the 23,000 lb tank system and therefore subject to lifting.

It is unlikely that the tank would be completely empty in a 100-year flood event as according to Safety-Kleen, it is always operational and accumulates sludge which necessitates a confined space entry for removal.

Using an oil density of 7 lb/gal, the tank would need to contain

12,000 lbs ÷ 7.0 lbs/gal or 1,714 gallons

of waste oil to remain stable.

SAGE recommends that the tank be anchored to the floor so that, in the event that the tank would not contain 1,714 gallons of waste oil, it would not be displaced during a flood event.

Should you have any questions, comment or require additional information, please do not hesitate to contact the undersigned.

SAGE Environmental, Inc.

Bruce W. Clark
Principal

BWC/car

Attachments

safety-kleen
A Clean Harbors Company

WASTE MATERIAL PROFILE SHEET

Profile No.

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #
GENERATOR NAME:
GENERATOR CODE (Assigned by Clean Harbors)
CITY STATE/PROVINCE ZIP/POSTAL CODE
ADDRESS
PHONE:
CUSTOMER CODE (Assigned by Clean Harbors)
CUSTOMER NAME:
ADDRESS
CITY STATE/PROVINCE ZIP/POSTAL CODE

B. WASTE DESCRIPTION

WASTE DESCRIPTION:

PROCESS GENERATING WASTE:

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ?

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP ***0.00***
MIDDLE ***0.00***
BOTTOM ***0.00***

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

ODOR
- NONE
- MILD
- STRONG

Describe:

BOILING POINT ºF (ºC)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT ºF (ºC)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- >= 10%

FLASH POINT ºF (ºC)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	--	MAX	UOM

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE.

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE.

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				
D005	BARIUM	100.0				
D006	CADMIUM	1.0				
D007	CHROMIUM	5.0				
D008	LEAD	5.0				
D009	MERCURY	0.2				
D010	SELENIUM	1.0				
D011	SILVER	5.0				
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			
CHLORINE			
FLUORINE			
IODINE			
SULFUR			
POTASSIUM			
SODIUM			
AMMONIA			
CYANIDE AMENABLE			
CYANIDE REACTIVE			
CYANIDE TOTAL			
SULFIDE REACTIVE			

HOCs

NONE
< 1000 PPM
>= 1000 PPM

PCBs

NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES | EXPLOSIVE | FUMING | OSHA REGULATED CARCINOGENS
POLYMERIZABLE | RADIOACTIVE | REACTIVE MATERIAL | NONE OF THE ABOVE

safety-kleen
A Clean Harbors Company

Profile No.

F. REGULATORY STATUS

YES NO USEPA HAZARDOUS WASTE?

YES NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY:
VARIANCE INFO:

YES NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER:
DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE NAME (PRINT) TITLE DATE

SECTION 5.0

WASTE ANALYSIS PLAN

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 5.0 WASTE ANALYSIS PLAN

Table of Contents

5.0 WASTE ANALYSIS PLAN

5.1 General Description of Facility Activities

Safety-Kleen maintains and operates a commercial waste recycling/treatment, storage and transfer facility at 167 Mill Street, Cranston, Rhode Island. The facility's geographic location is 41°46'183" north latitude and 71°25'135" west longitude. The facility occupies approximately 20,000 square feet in a single story building which is part of an industrial complex located in an industrial zoned area. The buildings are in excess of 18 feet high which allows for all storage and processing of waste inside the facility.

The facility is a commercial hazardous and non-hazardous waste management facility that specializes in recycling solvents and other usable materials from spent industrial waste. Safety-Kleen also may accept waste solvents and oily type waste that may be mixed or blended for BTU recovery or incinerated off-site. In addition, Safety-Kleen can accept and process certain categories of hazardous waste including universal wastes (managed either as hazardous waste or universal waste), cathode ray tubes and other electronic equipment. A listing of these wastes are included in Table 5.1 illustrating the US EPA and Rhode Island Department of Environmental Management (RIDEM) waste codes that Safety-Kleen is permitted or proposing to accept, store and process. The waste numbers may be in an individual category and carry an individual waste code number or may be a mixture of wastes that cross over into two or more categories and assigned multiple waste numbers.

Safety-Kleen receives waste from various off-site activities. This includes receiving waste from industry types such as the automotive service industry, manufacturing industry, coating related industry, marine industry, dry-cleaning industry, and other industries utilizing solvents and oils for cleaning or coatings.

5.2 Description of Core Wastes Received from Customers

Several types of core wastes are generated from the servicing of customers. The

following are descriptions of each of the wastes.

5.2.1 Spent Parts Washer Solvent

Spent parts washer solvent is generated from Safety-Kleen's core parts washer service and is collected from customers and placed in containers which are taken to the Recycle Center. The spent solvent is transferred to the return and fill station and transferred from there to the storage tanks in Building C. From there it is shipped off-site for recycling at one of Safety-Kleen's other recycle centers. There are two specific types of spent parts washer solvent. One is derived from a petroleum-based solvent provided to our customers, 150 (Premium) solvent, and one is derived from an aqueous parts washer solution. The aqueous parts washer is used for cleaning brake parts in the automotive repair industry as well as for other degreasing purposes.

Each waste stream is characterized through our annual re-characterization process to determine applicable hazardous waste codes. Those waste codes are then applied to the manifest documenting the shipment of the waste from the customer to Safety-Kleen. Through the annual re-characterization process, the premium solvent and aqueous solvent used for brake cleaning may be classified as a toxicity characteristic hazardous waste depending on the customer's use of the parts cleaner machine. Aqueous parts cleaning solvent not used in brake cleaning applications has been determined to be non-hazardous through the annual re-characterization process but may be managed as a hazardous waste based on individual customer knowledge or data.

For premium and aqueous brake cleaning solvents, a customer service program allows the customer to certify that the spent solvent has not been altered by the addition of hazardous waste constituents, and the solvent is managed as non-hazardous. Otherwise, these solvents may exhibit the following toxicity characteristic waste codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043.

5.2.2 Spent Immersion Cleaner

Spent immersion cleaner is generated from the leasing of our Immersion Cleaner, part of Safety-Kleen's closed-loop parts washer service, and is collected from customers in sealed drums. The drums remain sealed at the facility where they are stored prior to shipment to another Safety-Kleen Recycle Center for reclamation.

The spent immersion cleaner may fail the toxicity characteristic for any or all of the following waste codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043.

5.2.3 Dry Cleaning Wastes

Dry cleaning wastes consist of spent filter cartridges, powder residue from diatomaceous earth or other powder filter systems, separator water and still bottoms. These industry-specific core wastes are collected from customers in sealed containers and taken to the Cranston facility where they are transferred to an alternate designated facility.

Approximately 80 percent of the dry cleaning customers generate perchloroethylene waste (F002) which may fail the toxicity characteristic for any or all of the following waste codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043. About 20 percent of the dry cleaner customers generate mineral spirits (D001) which may fail the toxicity characteristic for any or all of the following waste codes: D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043.

5.2.4 Paint Wastes

Paint wastes consist of various lacquer thinners such as acetone, isopropyl alcohol,

methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes and acetate compounds (D001, F003, and F005) and waste paint. Some of the spent lacquer thinners are from paint gun cleaning equipment supplied by Safety-Kleen. Other paint waste is associated with the gun cleaner service but is not derived from the use of solvent supplied by Safety-Kleen (e.g., unused paint and thinner used outside of the gun cleaner). Paint waste may fail the toxicity characteristic for any of the following: 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, and D043. The waste is collected in containers at the customer's place of business and taken to Cranston where it is stored prior to on-site processing or shipped to another Safety-Kleen Recycle Center. Waste paint from non-gun cleaner related activities is managed under the Containerized Waste Service program.

5.2.5 Photographic Fixer Waste Service

The facility accepts photographic fixer waste streams which contain silver. Photographic fixer waste streams are generated by film developing processes (manual or automated). A photographic developer solution produces the image on a silver-halide coated polyester film. The fixer arrests the developing process and "fixes" the image. Although there are various types of film processes (X-ray, camera negatives (color and black & white), motion picture, slides, aerial, etc.) used by generators, the chemistry and procedures are comparable. Safety-Kleen focuses its attention on the photo-processing industry, medical/dental operations, industrial X-ray, and the printing industry. Safety-Kleen accepts only photographic fixer waste streams containing silver for processing and recovery. Photographic wastes containing listed hazardous wastes and hazardous constituents in excess of the Toxicity Characteristic Leaching Procedure (TCLP) limits are not accepted by Safety-Kleen under this service (except for silver). These wastes would be managed in the Containerized Waste Service program.

5.2.6 Bulk Shipments of Oil, Antifreeze and Non-hazardous wastewaters

Safety-Kleen picks up and transports waste oil through its Oil Services and Vacuum Services programs which are delivered to Cranston. Cranston may also receive non-hazardous antifreeze, wastewaters and oily water through these programs.

5.2.7 Spent Engine Oil Filters

Safety-Kleen picks up and transports spent oil filters to Cranston for recycling. The recycling process includes crushing the metal casings into blocks and recovery of used oil for recycling.

5.3 Description of Accepted Non-Core Hazardous Wastes

Non-core wastes accepted by Safety-Kleen are grouped into five waste categories as described below. All USEPA and RIDEM waste numbers authorized for acceptance can be classified into these categories. Safety-Kleen can receive these waste categories individually or as mixtures. These wastes may be received through our Containerized Waste Service Program or as bulk delivery.

The five waste codes are:

1. Halogenated Solvents and Other Hydrocarbons (Toxic);
2. Ignitable (Flammable/Combustible);
3. Used Waste Oils;
4. Non-hazardous waste: Various other non-hazardous wastes which do not meet the regulatory definitions of hazardous under 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 261) or RIDEM Hazardous Waste Rules will be accepted at Safety-Kleen; and
5. Other Waste: Waste batteries, mercury containing thermostats and devices, lamps, cathode ray tubes, lighting fixtures including ballasts and small PCB capacitors, and other electronic equipment. This category

includes both hazardous wastes meeting the above item descriptions, those managed as universal wastes by generators and those exempted from hazardous waste regulations when recycled (i.e. electronic equipment), including waste from Community Collection Centers and Paint Collection Centers under 250-RICR-140-10-1(1.12).

Table 5.1 lists the specific USEPA and RIDEM waste numbers that can be accepted by Safety-Kleen. Wastes accepted may be in an individual category and carry an individual waste number, or may be a mixture of wastes that cross over into two or more categories and are assigned multiple waste numbers.

Table 5.1

USEPA and RIDEM Hazardous Waste Numbers That Can Be Accepted

USEPA and RIDEM ACCEPTABLE WASTE CODES			
F001	F002	F003	F004
F005	F006	F019	F037
F038	K048	K049	K050
K051	K052	D001	-------
D002	D003(1)	D004	D005
D006	D007	D008	D009
D010	D011	D012	D013
D014	D015	D016	D017
D018	D019	D020	D021
D022	D023	D024	D025
D026	D027	D028	D029
D030	D031	D032	D033
D034	D035	D036	D037
D038	D039	D040	D041
D042	D043	------	U002
U003	U019	U031	U037
U041	U044	U045	U052
U055	U056	U057	U069
U070	U072	U078	U079
U080	U083	U088	U092
U102	U107	U108	U110
U112	U113	U115	U117
U121	U122	U124	------
U140	U151	U154	U159
U161	U162	U165	U169

USEPA and RIDEM ACCEPTABLE WASTE CODES			
U171	U188	U196	U210
U211	U213	U220	U226
U227	U228	U238	U239
U359	P022	R001	R002
R003	R004(1)	R005	R006
R007(2)	R010	R013 (3)	

(1) Limited to certain batteries (except for truck-to-truck transfers).

(2) PCB containing R007 waste limited to lighting ballasts and small PCB capacitors from lighting fixtures, electronic equipment, etc.

(3) RIDEM Waste Code R013 added in June 2015 for Community Collection Centers and Paint Collection Centers waste collection activities subject to 250-RICR-140-10-1(1.12).

5.4 Non-Acceptable Waste Steam Types

Safety-Kleen does not accept EPA Hazardous Waste Codes D003 or R002 reactive wastes (except for certain batteries such as lithium batteries). Safety-Kleen does not accept D001 wastes meeting the oxidizer definition, acutely hazardous (P-coded and certain F-coded) wastes or any applicable U or P coded wastes which are corrosive, reactive, acutely hazardous or oxidizers. In addition, Safety-Kleen does not accept medical waste or R007 wastes (PCBs over 50 ppm) except small capacitors and lighting ballasts.

5.5 Management of Wastes Generated Onsite

The following wastes are generated onsite:

1. Consolidation and processing of containers into larger containers/tanks can generate sludge or solids from emptying containers.
2. Processing of waste in storage and/or blending tanks can generate a sludge or solid type waste. The processing of waste that has come in contact with water may generate contaminated wastewater. The processing of batteries can generate consolidated whole or disassembled components and electrolyte for off-site recycling or disposal.

3. Processing of mercury bearing wastes (bulbs, thermostats and other devices) can generate mercury, mercury compounds, and disassembled components for on or off-site recycling or off-site disposal.
4. Processing of electronic equipment, lighting fixtures, and CRTs can generate whole or disassembled components for off-site recycling or disposal.

5.6 Generator Waste Stream Approval Procedures

5.6.1 Pre-Acceptance and Generator Profile Records

Waste profile sheets are completed by waste generators to accurately identify the waste and the process that created the waste. Generic profiles have been established for core waste streams and for used oil, oil filters, antifreeze, and other non-hazardous wastes (not including soils/sludges). For these waste streams, generic certifications are completed prior to the initial pick-up and at each subsequent service. These generic certifications and waste profile sheets will be maintained electronically by the facility.

For non-core waste streams, due to the greater variability in the compositions; their application or use; and the source industry, Safety-Kleen Systems, Inc. evaluates each stream from each generator separately. When a non-core waste stream is considered, the generator must provide Safety-Kleen Systems, Inc. with complete information on the waste stream. At a minimum this would include, a properly completed material profile, material safety data sheets (MSDS or SDS), if applicable, and any analysis, such as TCLP data, pertinent to the approval process.

For waste streams where the composition may not be clearly known by the generator, Safety-Kleen will require the generator to have a representative sample of the waste analyzed and will not approve any wastes for receipt unless the waste stream is clearly characterized on a profile backed up by laboratory data.

Safety-Kleen may require the generator to provide waste analysis using either a RIDEM or an EPA certified third party laboratory performing prescribed pre-acceptance test

procedures as set forth in this section.

5.6.2 Identification of Waste Parameters

Safety-Kleen primarily utilizes seven analytical screening methods for testing as listed in Table 5.2 below:

Table 5.2

Analytical Methods for Testing Performed by Safety-Kleen Technicians

TEST PARAMETER	ANALYTICAL METHOD
Flash Point	Screening test-attempted ignition of sample waste in lab hood or followed by SW846 Method 1010, 1020(a).
Metals	ICP (Inductively Coupled Plasma Mass Spectrometry)
Specific Gravity	Standard method 210, 213.
PCBs	SW-846 Method 8082
Gas Chromatograph	Screening GC Analysis and/or full or modified SW846 Method 8021
Heat Content	ASTM Method D-240-76, Bomb Calorimetry
Total Halogens	SW-846 Methods 9077 or 5050 followed by ion specific electrode
Other [1]	Varies[1]

[1]Analytical testing for waste shipped off site will be in accordance with end facility requirements and testing will be kept in Safety-Kleen's operating record when applicable.

a. Flash Point

Flash point testing serves to identify certain ignitable wastes that have a known flash point and to determine the temperature at which the waste will ignite when provided with a heat source. This becomes important in making the determination on treatment of this type of waste. The term "ignitable" characterizes waste material with a flash point of 140°F or less and does not make a distinction between flammable or combustible hazard classes.

Since Safety-Kleen must meet certain local regulations pertaining to storage of flammables, the flash test will be utilized to determine the proper storage location of ignitable waste. If the waste tested has a flash point of 100°F or less, it is considered a flammable waste and is stored in the designated flammable storage area. Waste materials that have a flash point of 101°F or higher are classified combustible and may be stored outside the flammable storage area.

b. Specific Gravity

Waste solvents in liquid form are tested for their specific gravity using a series of hydrometers. All virgin solvents have a known specific gravity. When they become contaminated with other solvents or oils the specific gravity will change and indicate levels of contamination. Example: Non-halogenated petroleum solvent in virgin form has a specific gravity of 0.77. Halogenated solvent tetrachloroethylene in virgin form has a specific gravity of 1.62. Specific gravity of halogenated solvents is considerably higher than specific gravities of non-halogenated solvents therefore they are easily detected when they are mixed.

c. Gas Chromatography

Gas Chromatography (GC) is used to identify various materials by comparing results with known spectral finger print standards. The GC will also indicate the presence of other materials that may be present in the sample being tested. Safety-Kleen uses the GC to identify waste halogenated solvents and to identify other materials to ensure that they are characterized appropriately.

d. Polychlorinated Biphenyls

Polychlorinated Biphenyl (PCB) analysis will be by EPA SW-846 Method 8082 or its updates with a detection limit of not greater than 2 ppm for each Aroclor. All positive PCB results will be analyzed with a matrix spike or matrix spike duplicates. For spent parts washer solvent, composite samples representing no more than 600 gallons each

will be analyzed for PCBs. Each incoming bulked tanker of used oil will be sampled. Samples composited in the laboratory for PCB analysis shall be made up of no more than 5 samples. Should initial analysis indicate PCB concentrations in composite samples greater than the quotient of 50 ppm divided by the number of samples in the composite, samples representative of each delivery comprising the composite will be analyzed for PCBs. Only those deliveries indicating PCB concentrations of less than 50 ppm PCBs will be unloaded into the storage tanks.

e. Total Halogens

The total halogen content is determined in accordance with SW-846 Method 9077 or Method 5050 followed by analysis with an ion specific electrode or silver nitrate titration. At this time, using these methods for chlorine analysis will constitute the "total halogen" analysis since fluorine, bromine and iodine contribute positive interference to the methods and chlorine is the predominant halogen in the waste received at Safety-Kleen. Should better speciation be necessary based upon information received from the generator, the sample shall be analyzed using SW-846 Method 9056 (ion chromatography method). The concentrations of the individual halogens would then be summed to yield a value for "total halogens."

The halogen determination is useful to ensure that used oil received at the facility is not contaminated with spent chlorinated solvent.

f. Heat Content

When required as described above, a portion of the sample from each delivery shall be used to determine heat of combustion by Parr oxygen bomb calorimeter in accordance with ANSI/ASTM method D240-76, "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter". The following Parr Instrument Company manuals are also referred as part of the heat of combustion analytical method:

i. Parr Instrument Company Manual No. 147, "Instructions for the 1341 Plain

Jacket Oxygen Bomb Calorimeter."

ii. Parr Instrument Company Manual No. 148, "Instructions and Methods for Parr Oxygen Bombs."

Calibration procedures are as described in the Parr Instrument Company Manual using Benzoic Acid. Each bomb is recalibrated every six months or before being put into service. Experience shows the Bomb Calibration factor does not change over the period of use. A complete combustion results in decomposition of organics and the residue is triply rinsed with water for use in the chlorine analysis, therefore the decontamination is part of the procedure. If oxidation has not fully occurred, then a cleaning with soap, water and a solvent, and then rinsing with water is performed on the bomb. Procedures are described in the "Instructions and Methods for Parr Oxygen Bombs."

g. Physical Appearance

As an initial qualitative step in reviewing an incoming waste stream, the physical appearance of the material will be reviewed. If the appearance is not what would be expected for that particular waste (e.g., solid versus liquid, oil filter drum containing unrelated material, etc.) the material will be reviewed as a potential non-conforming waste.

5.6.3 Selecting Waste Re-Evaluation Frequencies

Waste analysis must be repeated as often as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated when the generator and/or TSDF has reason to believe that the process or operation generating the hazardous wastes has changed.

At the time of each pickup, Safety-Kleen will require each generator of hazardous and non-hazardous waste to certify that their waste has not changed or re-characterize the waste stream.

If an approved waste stream is received and does not match the waste stream profile sheet, Safety-Kleen shall initiate a full review of the waste stream to ensure its acceptability at the facility. The waste will need to be re-evaluated through the Waste Stream Approval Process.

Re-profiles for the core waste streams are established through the annual re-characterization process. For existing parts washer customers, the initial waste acceptance sampling described in Section 5.6 will be repeated on a generator's wastes on a biennial basis. Typically, this will be completed on an incoming shipment of a generator's waste and the results recorded and documented. This re-evaluation testing will be completed on 1.5% of the parts washer generators from the average generator customer base of the previous year. Typically, this will be completed on an incoming shipment of a generator's waste and the results recorded and documented. Safety-Kleen will then review the sample results to determine whether continuing approval of these generators is warranted.

5.7 Incoming Acceptance Procedures

5.7.1 Review of Manifest Shipping Papers and Shipment Loads

Prior to the acceptance of waste, the manifest is reviewed to ensure that:

i. The manifest is complete and accurate.

ii. Information on the manifest matches that on the Generator Profile Form.

iii. Container labeling matches the description of the shipment on the manifest.

iv. Labeling is properly affixed to each container.

v. The number of containers matches the quantity shown on the manifest.

Containers are in good condition, and markings and placards on bulk shipments match the description on the manifest.

Any of the following criteria will be considered significant discrepancies:

i. Difference in bulk quantity volume over 10%.

ii. Waste identified on the manifest is one that Safety-Kleen is not permitted to accept.

iii. Number of containers in shipment is different from the number on the waste manifest.

iv. Waste identified on a container label is different from waste identified on manifest.

v. Information on the manifest does not match that on the Generator Profile Form.

If significant discrepancies are found during this phase of the review, Safety-Kleen personnel will attempt to reconcile them by contacting the waste generator. If the discrepancy is not resolved with the generator, Safety-Kleen will keep the waste separate in a designated area pending the resolution of the discrepancy. If the discrepancy is reconciled, appropriate notations will be made on the manifest line item 18 and processed in accordance with the provisions of the waste analysis plan. If the whole or a partial shipment is rejected, the manifest will be edited to reflect the actual quantity accepted, appropriate notations made on manifest line item 18, and the rejected containers returned to the generator with a copy of the manifest or shipped to an alternate facility. All discrepancies not resolved within 15 days of receiving the waste will be reported to the DEM. Notification will consist of a letter describing the discrepancy and attempts to reconcile it, along with a copy of the corresponding manifest.

5.7.2 Incoming Waste Shipment Sampling and Analysis

Wastes arriving at Safety-Kleen are subject to the acceptance review procedure described in this section. A physical and chemical analysis is conducted in accordance with Table 5.3 and information compared to the generator's waste profile form data. Oil

filters, antifreeze, non-hazardous waste (other than soils/sludges), dry cleaning waste, unused materials and universal wastes are only visually inspected.

Non-hazardous soils and sludges (including vacuum service waste) require a physical and chemical analysis conducted in accordance with Table 5.3 and information compared to the generator's waste profile form data. Representative samples from a generator's shipment of incoming containerized waste will include a sample collected from each container and a composite sample will be prepared for the same waste type for up to twenty (20) 55-gallon drums (or the equivalent volume of smaller containers). The composite will then be tested in accordance with Table 5.3. Vacuum service waste will additionally require the following:

For vacuum service wastes accepted from "automotive" customers, a "generic" Safety-Kleen profile is completed, signed, and submitted by the waste generator or the generator's authorized agent. Generic profiles are based on generator knowledge and identify dirt/grease/grime, and oil and water as the waste constituents. Generic profiles shall also identify specific information about the generator, the waste description, and the waste-generating process. These profiles are not reviewed or approved by the CPG. Profiles shall document the use of generator knowledge in making a hazardous waste determination and include all supporting documentation used to make the determination.

Prior to providing vacuum waste service, the Safety-Kleen Representative will evaluate each "automotive" customer's waste stream to verify the waste stream is:

- in an oil/water separator with a visible oil layer in more than a single stage;
- in an oil/water separator, sump, pit or trench;
- from a business that is in active operation;
- in an oil/water separator with no other drainage lines, trenches, etc., from other facility operations leading into the separator;
- not a one-time pick-up; and

• not suspected to contain flammable or corrosive material

For vacuum service wastes accepted from "non-automotive" and "high risk" customers,

Wastes shall be analyzed/tested according to the following procedure:

- Identify the total number of "non-automotive" and "high-risk" vacuum service customers
- During each quarter of the calendar year, sample all vacuum service waste streams from approximately 25% of the customer list each quarter such that all customer waste streams are sampled by the end of the year
- Samples are to be representative of the aqueous phase of waste
- Samples shall be analyzed for metals (either by Total RCRA 8 or by Toxicity Characteristic Leaching Procedure - TCLP); VOCs (with the results compared to toxicity characteristic regulatory levels for those compounds); and to determine if the waste exhibits the characteristics of ignitability or corrosivity.
- Analysis shall be conducted by an independent third-party laboratory
- The analytical/testing results are compared to the waste profile

Shipments of vacuum service waste from Safety-Kleen shall be analyzed/tested according to the following procedure:

- One outgoing shipment per quarter shall be sampled for metals (either by Total RCRA 8 or by Toxicity Characteristic Leaching Procedure - TCLP), and to determine if the waste exhibits the characteristic of corrosivity.
- Analysis shall be conducted by an independent third-party laboratory.
- The analytical/testing results are compared to the waste profile

On an annual basis, Safety-Kleen shall review the Vacuum Service Waste Analysis procedures and the previous year's analysis/testing results (i.e., testing data). This annual review will be documented in the facility operating record. Any potential changes

to the procedure that are identified by Safety-Kleen based on this review shall be documented in the facility operating record. Before implementing any changes to the procedure, Safety-Kleen shall obtain RIDEM approval through modification of this WAP. Analysis/testing of vacuum service waste shall be subcontracted to an independent state-certified or NELAC laboratory that will use ASTM and SW-846 analytical and test methods. A record of all analyses/testing of vacuum service waste shall be maintained by Safety-Kleen as part of the facility operating record. The record shall include:

- A copy of the chain of custody document
- Copies of all applicable analytical and test results and lab reports
- A copy of the original (incoming) manifest or shipping paper, if applicable
- A copy of the original waste profile
- Documentation of any profile discrepancies identified by the analysis/testing
- If applicable, a copy of any written correspondence with the generator related to resolving a profile discrepancy and documentation of relevant conversations with the generator regarding the same
- If applicable, copies of any written correspondence with the generator and the Agency related to resolving a manifest or shipping paper discrepancy and documentation of relevant conversations with the generator or the Agency regarding the same.
- If applicable, a copy of the revised waste profile

The acceptance phase consists of a manifest/shipping paper review and sampling and analysis, if required. A determination is then made to place the waste in the appropriate designated storage area and/or storage tank which may involve the transferring of containers.

i. The waste is then blended, consolidated, processed, and/or remains in

original received containers for shipment off-site to a permitted disposal facility.

ii. Waste received at Safety-Kleen that do not meet the waste acceptance protocols provided above, are placed in a designated area and generator is notified, as described in Section 5.7.

5.7.3 Waste Acceptance Testing Parameters

This section addresses acceptance testing parameters for samples of incoming waste to be tested in accordance with Table 5.3. For incoming bulk shipments, a representative sample will be collected in accordance with sampling procedures in Section 5.6 and the collected sample tested in accordance with the following Table 5.3 For a generator's shipment of incoming containerized waste a sample will be collected from each container and a composite sample will be prepared for the same waste type for up to twenty (20) 55-gallon drums (or the equivalent volume of smaller containers). The composite will then be tested in accordance with Table 5.3.

Table 5.3

Acceptance Waste Testing Parameters

Parameter	Halogenated Solvents	Ignitables	Parts Washer Solvent	Core & Source Specific Waste[5]	Waste Oils	On-Site[4]	Aqueous Other[7]	Non-haz Soils/ Sludges (10)	Non-haz Other
Flash Point		X[6]						X	
PCBs		X	X[8]		X				
Specific Gravity	X	X[1]	X[8]		X		X		
Gas Chromatograph	X	X[2]							
BTU Content					X[3]				
pH	X[9]	X[9]	X[9]		X[9]		X	X[9]	
Physical Appearance	X	X		X	X	X	X	X	X

1. Performed when waste is in liquid form.
2. Used when other tests are inconclusive.
3. BTU test is used only when required by off-site facility that will use the waste oil as an alternate fuel.
4. Identified as sludge from storage tanks, filters, solids from drum transfer (drum heels). On site waste generated from these processes is sent off-site for treatment/incineration and therefore testing of the waste is minimal.
5. Waste as identified in Sections 5.2: immersion cleaner, oil filters, antifreeze, unused materials and Universal Wastes.
6. Unless material is classified as flammable (flash point less than 100°F) and will be stored in flammable room.
7. Aqueous solvent, Photographic Fixer Solution & other water based wastes
8. See Sections 5.7 for full details on testing requirements.
9. pH testing is completed on any water phase present
10. Vacuum service wastes must follow the additional requirements in Section 5.7.2.

At a minimum, Safety-Kleen will sample and analyze the waste in Tank 33 semi-annually prior to the bulk disposal of waste from Tank 33. Tank 33 shall not be bulked until results of analyses have been reviewed and verified. Samples will be collected

from each phase of the waste (i.e. the top, middle, and bottom of Tank 33). The samples from each phase shall be collected and analyzed separately. Analysis of these samples are to include, but not limited to: VOA(s), semi-VOA(s), benzene and tetrachloroethylene. If the final results of any analysis determine that the waste is hazardous, the waste shall be managed appropriately. If the sample analyses determine the waste in Tank 33 to be hazardous, the next bulk disposal of waste from Tank 33 is to be sampled, analyzed, and disposed appropriately.

5.7.4 Waste Stream Screening and Acceptance

a. Parts Washer Waste Solvent – Existing Customers

Safety-Kleen receives daily shipments of waste solvents that are non-halogenated hydrocarbons commonly known as mineral spirits or petroleum naphtha. In lieu of the screening analysis referenced above, the waste solvent is tested for acceptance as follows.

i. Upon receiving waste shipments of waste solvent a sample is taken from each drum containing the waste. The sample is identified using the last four numbers of the associated hazardous waste manifest.

ii. Portions (about half) of the individual samples are combined into a composite sample. The composite sample shall represent no more than 600 gallons of spent mineral spirits. In addition to an initial visual physical appearance inspection, the sample will be analyzed for PCBs and specific gravity. If the specific gravity is in the range of 0.73 – 0.80, the waste can be bulked for further processing. If the specific gravity of the composite sample is out of the range of 0.73 – 0.80, then Safety-Kleen will test each individual drum for specific gravity to determine the outlier(s). Any individual drum that is outside of the range of 0.73 – 0.85 must be segregated and will have Ignitability and Gas Chromatography (GC) tests performed within one business day with the test results recorded in the operating record within seventy-two hours of the testing. The drum will be moved to a designated area in the permitted container storage area within

one business day where it will be held pending resolution of the non-confirming waste issue. Safety-Kleen will update the profile, as necessary pending the findings, of the customer/generator prior to acceptance of any additional waste from this customer/generator.

iii. After the analysis procedures are completed and the waste is accepted, the individual containers will be transferred into Safety-Kleen's storage or processing areas. Such transfer may include relocating the drums to appropriate Storage areas, transferring the drums to portable holding tanks, or transferring the drum contents either directly or via the waste solvent holding tank in Building A to storage tanks in Building C.

Safety-Kleen will repeat the testing specified for new generators in Section 5.6 for 1.5% of the existing parts washer generators from the average generator customer base of the previous year. Typically, this will be completed on an incoming shipment of a generator's waste and the results recorded and documented.

b. Parts Washer Waste Solvent – New Generators

New generators will complete generator profiles with certifications prior to the acceptance of waste at Safety-Kleen's facility. These are processed through the Central Profile Group (a corporate group dedicated for Profile approval for the entire company) and assigned specific waste code technical and regulatory attributes.

Upon first receipt of waste from a new parts washer waste solvent generator, Safety-Kleen will identify the receipt of such waste for initial characteristic testing when received at the facility. This testing will be completed in the onsite lab within one business day of the arrival of the waste.

Safety-Kleen will compare the information on the manifest form with the generic profile to assure that the waste being received is the waste originally identified on the generator's certification.

Safety-Kleen will analyze the waste according to the parameters for ignitables set forth

in Table 5.3.

Safety-Kleen will hold all parts washer solvent drums, including those for new customers, until the analytical test results are confirmed. If any drums fail they will be segregated by being placed in a Building C staging area and marked with wording such as "Do Not Process." Section 5.7 procedures will be followed for addressing all discrepancies. If approved for acceptance, Safety-Kleen will maintain the analytical results on file.

c. Immersion Cleaner

Safety-Kleen receives shipments of waste immersion cleaner solvent that contains non-halogenated hydrocarbons. In lieu of the screening analysis referenced above, the waste solvent is tested for acceptance as follows.

i. Upon receiving shipments of waste solvent a sample is taken from each drum containing the waste. The sample is identified using the last four numbers of the associated hazardous waste manifest.

ii. Portions (about half) of the individual samples are combined into a composite sample. The composite sample shall represent no more than twenty drums of spent immersion cleaner. The sample will be analyzed for PCBs and specific gravity. If the specific gravity is in the range of 0.90 to 1.00, the waste can be bulked for further processing. If the specific gravity of the composite sample is out of the range of 0.90 – 1.00, then Safety-Kleen will test each individual drum for specific gravity to determine the outlier(s). Any individual drum that is outside of the range must be segregated and will have Ignitability and Gas Chromatography (GC) tests performed within three business days with the test results recorded in the operating record within seventy-two hours of the testing. While the analysis is pending, the containers will be segregated by being placed in a Building C staging area and marked with words such as "Do Not Process".

Safety-Kleen will also update the profile of the customer/generator prior to acceptance of any additional waste from this customer/generator.

iii. After the analysis procedures are completed and the waste is accepted, the individual containers will be transferred into Safety-Kleen's storage or processing areas. Such transfer may include relocating the drums to appropriate storage areas or transferring the drums to portable holding tanks in Building C.

d. Unused Materials

Occasionally generators will elect to dispose of unused material. Since the exact identity of these materials is known, acceptance screening as specified above are not required. Safety-Kleen will only accept such materials if the following criteria are met:

i. The generator must certify on the Waste Profile Form that the material consists of only the unused product.

ii. The material container must contain product information labels and/or markings.

iii. The unused material waste codes must be those that Safety-Kleen is authorized to accept.

Safety-Kleen must receive a Material Safety Data Sheet (MSDS or SDS) or other detailed documentation for any unused material with the Waste Profile Form, prior to acceptance of any unused material.

e. Other Wastes

Since Universal Wastes consist of recognizable fixed articles (i.e. batteries, electronic equipment, lamps, mercury-containing devices, etc.), they are not subjected to waste acceptance analysis described in Table 5.3. Rather, they are visually inspected to ensure they match the description on the manifest or shipping paper.

f. Waste Motor Oil

Waste motor oil shipments (oil from automotive service stations) are sampled and tested for PCBs and total halogens. Each truck is sampled per Section 5.10. If the concentration of halogens is greater than 1,000 ppm, then the waste is presumed to be a hazardous waste unless this presumption is rebutted as referenced in 250-RICR-140-10-1(1.4(C)) (which corresponds to 40 CFR 261.3(a)(2)(v)) in accordance with the following procedure.

i. A sample of the waste oil will be analyzed for halogenated hydrocarbons by screening for: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane,ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane.

ii. If the concentrations of these constituents are less than 100 ppm, the presumption that the oil has been mixed with hazardous waste will have been rebutted.

iii. In lieu of the testing mentioned above, the presumption can also be rebutted by receiving documentation from the generator of the oil that definitively indicates the source of the halogens are not the above 10 listed compounds and that the listed compounds are not in use at the generating facility.

If the presumption can not be rebutted, the sample will be treated as a hazardous waste using an F001 or F002 hazardous waste number. Appropriate notifications to the RIDEM OLR&SMM and the generator(s) will be made in accordance with (250-RICR-140-10-1(1.16.1(A)(2).

5.8 Procedures for Ignitable, Reactive, and Incompatible Wastes

The waste analysis plan must include provisions to ensure that waste management

units meet the special requirements for ignitable, reactive, and incompatible wastes. Incompatible wastes, if brought together, may result in heat generation, toxic gas generation, and/or explosions. Therefore, plan must address measures to identify potentially ignitable, reactive, and incompatible wastes. Acceptable wastes into the facility are controlled through the profiling process described in Section 5.6. The information provided by the waste manifest and waste acceptance testing is used to determine that wastes meet the original profile information on file. For non-conforming wastes (i.e., ones that do not match the profile) the wastes will not be accepted for processing unless the re-evaluation through the waste stream approval process clearly determines that this waste is acceptable. If the generator cannot clearly identify and re-profile the waste, this re-evaluation will require additional testing to determine compatibility as well as a full RCRA characterization for Safety-Kleen acceptance. Alternatively, the waste will be returned to the generator.

The mineral spirits are ignitable and combustible. Safety-Kleen has taken special precautions to meet all the requirements for the storage of ignitable wastes. The facility does not accept reactive wastes so potential incompatibilities with the ignitable wastes are screened out during the pre-acceptance phase of the waste analysis plan.

5.9 Procedures to Ensure Compliance with LDR Requirements

In accordance with the LDR regulations 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268), wastes shipped off site may need to be analyzed to determine whether the waste meets the applicable LDR treatment standards contained in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268 Subpart D). Testing will be conducted only to certify that the waste meets LDR treatment standards. If it is known that the wastes do not meet applicable LDR treatment standards based on process knowledge, no testing is necessary. Each waste for which a treatment standard has been set will be evaluated for the applicable parameters in 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268 Subpart D). All analytical results completed in support of LDR requirements will be retained within the facility operating record.

Wastes resulting from facility operations that exceed applicable LDR treatment standards will be sent off site to a permitted treatment facility. LDR notifications will be supplied with the first shipment of waste with the information required under 250-RICR-140-10-1(1.4(B)) (which corresponds to 40 CFR 268.7). In addition to the LDR notification, any additional data for the waste stream will be provided to the designated treatment facility.

5.10 Selecting Sampling Procedures

5.10.1 Sampling Strategies and Equipment

Waste accepted at Safety-Kleen is shipped in containers or in bulk. Containers and bulk tankers will be checked and sampled and analyzed before being moved/transferred to appropriate storage areas/tanks to ensure that no incompatible waste is placed into a storage area/tank.

Precautions will be taken to prevent injuries, fire, or spills during sampling. Proper protective equipment will be worn by personnel during sampling and analysis of waste. This will include, as appropriate, gloves resistant to the material being sampled, protective clothing (e.g. coveralls, aprons, etc.), safety glasses or face shield and a half-face respirator with appropriate cartridges.

Only non-sparking (brass) bung wrenches will be used to open drums. Drums which are bulging or appear to be in poor condition will be opened with extreme care to avoid spills or ruptures. Such drums will usually not be accepted.

Bulk trucks will be sampled in the loading/unloading areas in Building A, B, or C. Containerized waste will be sampled in the temporary staging/sampling areas in Building A, B, C or L. These areas are shown on the site plan and are provided with spill control equipment.

All sample containers and sampling techniques will be in accordance with EPA SW-846, third edition, chapter 9 and will be appropriate for the type of analysis being performed

and the physical characteristics of the waste. The samples are brought to the laboratory for analysis.

5.10.2 Bulk Sampling

Sampling of bulk loads of waste from each tanker is accomplished with a copper coliwasa sampler. The sampling tool is similar to that described in EPA SW-846, Third Edition, 9/86, Chapter 9. Section 9.2.2.4.

Sampling is accomplished through the top hatch of the tank truck. Sufficient sample is taken to fill an eight (8) ounce glass jar. If there is more than one compartment, a proportional representation is taken from each compartment. In this case, composite samples will be taken from the top, middle, and bottom third of the truck.

Between each use of a sampler, it is washed and rinsed to assure the removal of any contamination from previous samples. Approximately, an eight (8) ounce aliquot is taken to perform the waste analysis and waste evaluation. The aliquot is labeled and carried to the laboratory analysis.

After analysis, the remainder of the sample is stored in its glass jar with a teflon lined cap. The jar is marked to indicate the date and sample number. Each sample will be stored until the material has been processed, shipped offsite or until all questions are resolved regarding the received material, whichever is longer.

5.10.3 Container Sampling

The coliwasa sampler, hollow tube, or thief is employed to sample the drums of waste received from generators off-site. Safety-Kleen performs 100% sampling of drums for waste streams which require analysis, with composites of each unique waste stream prepared for analysis. For the mineral spirits waste, at least 10 ml is taken as a representative sample of each drum. One composite sample is prepared for each unique waste stream using the samples representing no more than 600 gallons of waste. The composite samples are managed in the same manner as the incoming bulk samples with respect to labeling and storage. For all other containerized waste for

which analytical work shall be performed, each container will be sampled. Composite samples will only be taken for containers from the same generator and containers from the same line item from the manifest.

5.10.4 Sample Preservation and Storage

Table 5.4 outlines the required preservation and holding times for the analytes listed in this waste analysis plan:

Table 5.4

Sample Preservation and Storage

PARAMETER / ANALYTE	PRESERVATION	HOLDING TIME
PCBs	None	14 days to extract; 40 days to analyze after extraction
Total Halogens	None	N/A
Gas Chromatography (8021)	Cool to 4°C, sodium thiosulfate	14 days
Specific Gravity	None	N/A
Heat Content	None	N/A
Physical Appearance	None	N/A
Flash Point	Cool to 4°C	N/A

5.10.5 Sampling QA/QC Procedures

Safety-Kleen's laboratory operations are directed and managed by the Compliance Manager. The Compliance Manager will maintain a training record that will document the subject matter and time allotted to training laboratory technicians. The training records will also include any certificates and other documents relative to the employee's training. The compliance manager is responsible for quality control of all sampling and analysis procedures specified in this plan and will train personnel in proper sampling and analysis procedures. No one will sample waste without supervision until they have been trained and have been determined to be qualified to work unsupervised. All

records documenting all QA/QC actions will be maintained at the facility.

The day-to-day testing or analysis is conducted by laboratory technicians. The technicians must have a minimum of 3 months on the job supervised training before they are authorized to conduct analysis of hazardous waste set forth in Safety-Kleen's Waste Analysis Plan. Safety-Kleen will maintain training records for employees conducting sampling and analysis including course work, certificates, education, and hours logged in supervised on-the-job training.

Routine inspections of all on-site laboratory equipment are performed and the laboratory equipment is routinely calibrated and maintained. The laboratory technicians will be responsible for maintaining all equipment used for testing waste in good working order and inspect it daily. The gas chromatographic equipment will be maintained in accordance with, at a minimum, the manufacturer's recommendations maintained by third party support services and are calibrated within specification no less than annually. Required maintenance and service will be performed in accordance with, at a minimum, the manufacturer's recommendations or as necessary inspections reveals the need for such. All documents pertaining to repair and maintenance of the laboratory testing equipment will be maintained at the facility.

Section 5 Addendum 1

Waste Types

Safety-Kleen

Waste Description	Waste Codes [2]	Covered Under AR Program (Y/N)
Aqueous Brake Cleaner	None	N
Aqueous Parts Washer Solvent	None	N
Dry Cleaning Perchloroethylene Bottoms	F002, D007, D039, D040	Y
Dry Cleaning Naphtha Bottoms	D001, D007, D039, D040	N
Immersion Cleaner (Petroleum)	TCLP[1]	Y
Premium Parts Washer Solvent 150	D039	Y
Parts Washer Solvent 105	D001, D018, D039, D040	N
Bulked Parts Washer Solvent	D001, D018, D039, D041	N
Paint Related Wastes (Waste Paint Only)[3]	D001, F003, F005, TCLP[1]	Y
Paint Gun Cleaner Related Waste	D001, F003, F005, TCLP[1]	Y
Universal Waste	None	N
Antifreeze	None	N
Automotive Vac Waste	None	N
Industrial Vac Waste	None	N
Industrial Vac Waste	D004-D011	N
Used Oil	None	N
Oil Filters	None	N
Tank Bottom Sediment	D001, D018, D039, D040	N
Fractionalization Tank Bottom Sediment	None	N

Return and Fill Waste	D001, D018, D039, D040	Y
Contaminated gloves, rags, etc. (debris)	F002, F003, F005, D001, TCLP[1]	N
Imaging Waste, Silver Cartridges	None	N
Imaging Waste, Film	None	N
Imaging Waste, Aluminum Plate	None	N

[1] TCLP Waste Numbers D004-D011, D018, D019, D021-D030, D032-D043

[2] Subject to change as a result of laboratory analysis or field screening.

[3] Non-Paint Care Program Waste

SECTION 5 ADDENDUM 2

WASTE MATERIAL PROFILE SHEET

safety-kleen.
A Clean Harbors Company

WASTE MATERIAL PROFILE SHEET

Profile No.

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION #
GENERATOR NAME:
GENERATOR CODE (Assigned by Clean Harbors)
CITY
STATE/PROVINCE
ZIP/POSTAL CODE
ADDRESS
PHONE:
CUSTOMER CODE (Assigned by Clean Harbors)
CUSTOMER NAME:
ADDRESS
CITY
STATE/PROVINCE
ZIP/POSTAL CODE

B. WASTE DESCRIPTION

WASTE DESCRIPTION:

PROCESS GENERATING WASTE:

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ?

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
- % FREE LIQUID
- % SETTLED SOLID
- % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

ODOR
- NONE
- MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN --	MAX	UOM

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE.

SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE.

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				
D005	BARIUM	100.0				
D006	CADMIUM	1.0				
D007	CHROMIUM	5.0				
D008	LEAD	5.0				
D009	MERCURY	0.2				
D010	SELENIUM	1.0				
D011	SILVER	5.0				
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			
CHLORINE			
FLUORINE			
IODINE			
SULFUR			
POTASSIUM			
SODIUM			
AMMONIA			
CYANIDE AMENABLE			
CYANIDE REACTIVE			
CYANIDE TOTAL			
SULFIDE REACTIVE			

HOCs

NONE
< 1000 PPM
>= 1000 PPM

PCBs

NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCES	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	NONE OF THE ABOVE

safety-kleen
A Clean Harbors Company

Profile No.

F. REGULATORY STATUS

YES NO USEPA HAZARDOUS WASTE?

YES NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY:
VARIANCE INFO:

YES NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER: DRUM SIZE:

BULK LIQUID

GALLONS/SHIPMENT: ***0 Min -0 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge.I also certify that any samples submitted are representative of the actual waste.If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE NAME (PRINT) TITLE DATE

TERMS and DEFINITIONS

Annual Recharacterization (AR) A comprehensive Safety-Kleen analytical program whereby a large number of representative samples are analyzed annually, having been collected from various core waste streams which include closed-loop or industry-specific waste streams throughout the Safety-Kleen nation-wide network of Service Centers and Recycle Centers. All samples are taken by Safety-Kleen employees and shipped to independent laboratory facilities for testing. The tests performed include: TCLP (metals, volatiles, semi-volatiles) flash point and pH. The results of the analyses are then tabulated for all facilities to provide a cross-sectional view of the waste characteristics associated with the closed-loop or industry-specific waste streams. Based on these results, Safety-Kleen determines which waste codes to assign to these waste streams on a year-to-year basis. Unless an individual customer proves through individual waste analyses that these generic waste codes do not apply, Safety-Kleen will automatically apply all waste codes determined applicable through the AR process.

Closed-Loop Services – In these services, Safety-Kleen provides the clean solvent to the customer, collects the spent solvent, recycles the solvent and returns the recycled solvent back to customers as a product. Hence, the term "closed – loop".

Containerized Waste Service – A Safety-Kleen service for the management of a wide range of non-core containerized hazardous and non-hazardous wastes.

Core Waste – This term refers to the core or original Safety-Kleen waste streams. These waste streams include the "closed-loop" wastes; spent parts washer solvent, spent immersion cleaner and paint gun cleaner waste. The term also includes the following industry-specific wastes: dry cleaning waste, paint waste associated with the paint gun cleaner process, photographic fixer waste and aqueous parts washer solvent. These are waste streams that Safety-Kleen has sufficient knowledge for characterization to properly manage without customer-specific analytical data and without prior approval through a written waste profile. Core wastes are always specific wastes generated from specific processes.

Paint Gun Cleaner Waste – Waste generated from the use of a paint gun cleaner used to clean paint cup guns and other equipment used for spray painting, typically for automotive refinishing but with manufacturing applications as well, such as the painting of new equipment. This industry-specific waste consists of a mixture of flammable solvents common to paints and varnishes used to clean paint spray guns. Typically this waste solvent will contain ketones, esters, aliphatic and aromatic solvents, and possibly glycol ethers.

Paint Waste – An industry-specific core waste stream that includes Paint Gun Cleaner Waste and leftover paint that is unused and emptied into a container prior to the cleaning of the painting equipment. Other wastes from painting related processes not associated with the paint gun cleaner will be managed as a non-core waste under our Containerized Waste Service.

Photographic Fixer Waste – Photographic fixer waste is generated from the development of photographic film. Fixer stops the action of the developer solution, removes excess silver from the film and stabilizes the remaining silver on the film.

Safety-Kleen Recycle Center – A facility operated by Safety-Kleen and permitted by the EPA or state regulatory authority to receive solvents and/or other waste streams for reclamation, fuel blending or other processing.

Safety-Kleen Service Center – Safety-Kleen has approximately 160 Service Centers located throughout the country that provide the Company's services to customers in their geographic location. Wastes collected by these service centers are either bulked or maintained in containers and shipped on to a Safety-Kleen Recycle Center or permitted third-party vendor.

Safety-Kleen Technical Center - The Technical Center provides customers and internal clients with products and services requiring business, technical, and regulatory expertise for a variety of services.

Technical and sales support services include:

- Analytical Services from Corporate Lab at East Chicago Refinery (e.g., Containerized Waste, Oil Services Prequalification analysis)
- Compliance and Product Chemistry, Regulatory Assistance and Advice
- Field Sampling Guide Management and Development Model Management (including IH contractor)
- Laboratory Standard Operating Procedures Management
- Non-conforming Waste Coordination, Recycle Center and Incident
- Outsource Services Management (Analytical, MSDS, Annual Recharacterization, Product Labels/Manuals and Documentation)
- SK Laboratory Quality Assurance (Standard Operating Procedures, Performance Evaluation, and Data Validation)

Spent Immersion Cleaner – Safety-Kleen provides a specialized immersion style parts washer for more difficult to clean parts, particularly used in the automotive repair industry. The solvent provided is a proprietary blend of naphtha, N-methyl pyrrolidone (NMP), monoethanolamine and glycol ethers. On a regularly scheduled basis, Safety-Kleen services the unit and removes the spent solvent as a closed-loop waste.

Spent Parts Washer Solvent – A core waste stream generated from the use of one of Safety-Kleen's parts cleaner services. Safety-Kleen offers a petroleum–based solvent as well as an aqueous solution to our parts cleaner customers.

Third-party Vendor – A facility neither owned nor operated by Safety-Kleen, but permitted by the EPA or state regulatory authority to recycle, store, treat, and/or dispose of the wastes that Safety-Kleen ships there.

Waste Class Codes (WCC) - The mechanism that Clean Harbors utilizes to categorize waste streams. Associated with each WCC is a set of specifications that define physical, chemical and/or regulatory attributes.

WINWeb - Waste Information Network (WINWeb). WINWeb is a totally networked, single web based system that has a multitude of functions from profiling, quoting, order placement and management, low cost routing of waste, plant receiving and waste processing on to invoicing. WINWeb is scalable and can be accessed from anywhere via the internet.

SECTION 6.0

SITE SECURITY PLAN

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 6.0 SITE SECURITY PLAN

Table of Contents

6.0 SITE SECURITY PLAN

6.1 PURPOSE

This plan, required by 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.14), describes the measures and precautions taken by Safety-Kleen Systems, Inc. to prevent unknowing entry and to minimize the possibility of unauthorized entry into the active portions of its facility at 167 Mill Street. The requirements for site security are detailed in 250-RICR-140-10-1(1.10.2) which incorporates 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.14). Site security is maintained by the following mechanisms:

- 24-hour surveillance system
- Entry control
- Warning signs
- Inspection of security provisions

Each is described in the following sections.

6.2 24-HOUR SURVEILLANCE SYSTEM

During operating hours, facility personnel are able to detect unauthorized entry. The facility is equipped with a 24-hour alarm and monitoring system in the storage and processing areas for continuous surveillance when the facility is closed. This system incorporates both door contacts and passive infrared motion sensors. The system automatically reports potential intruders to a central station at the alarm company which immediately relays this information to the Cranston Police Department and to Safety-Kleen Systems, Inc. personnel.

6.3 ENTRY CONTROL

The active portions of Safety-Kleen Systems, Inc. are entirely within facility buildings. Entry into the buildings is limited by access doorways into each building. Buildings A, B,

C, D and L have access doors to the exterior at various locations. These doors are maintained closed and locked except during operating hours when they can be monitored by facility personnel. Several interior doors lead to other portions of the building complex. Since the entire building complex is secure and occupied by Safety-Kleen Systems, Inc. affiliated company personnel, these doors do not pose a risk of unauthorized entry.

All windows and exterior entry doors to facility buildings are locked when the facility is not operating. Signs on doors leading to the exterior warn against trespassing. A detailed description of warning signs is provided later in this section.

Visitors are required to check in the office and sign a visitors log prior to being allowed to enter the facility. In addition, visitors are provided a Safety-Kleen Systems, Inc. escort.

The main entrance to Safety-Kleen Systems, Inc. is also secured by a chain link fence and an electronic key-coded gate at the end of Mill Street. This gate is closed and secured during non-operating hours.

6.4 WARNING SIGNS

Warning signs are located at the facility in accordance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.14). "Danger – Unauthorized Personnel Keep Out" signs (or those with similar wording) are posted at all exterior entrance doors into the facility buildings. All signs can be easily read from 25 feet and meet all requirements of 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.14(c)). In addition, a number of "No Smoking" signs are posted throughout the active portion of the facility.

6.5 INSPECTIONS OF SECURITY PROVISIONS

All security provisions discussed above are inspected routinely by facility personnel. The results are recorded in the facility operating record.

SECTION 7.0

GENERAL INSPECTION SCHEDULE

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 7.0 GENERAL INSPECTION SCHEDULE

Table of Contents

7.0 GENERAL INSPECTION SCHEDULE

7.1 GENERAL

The purpose of this plan is to describe and delineate the procedures routinely used by Safety-Kleen Systems, Inc. personnel to inspect their facility and equipment for malfunctions, deterioration, operator errors, leaks, and discharges that could cause a threat to human health and/or environmental damage. These inspections are performed on a schedule designed to identify problems in time to correct them before an emergency situation can occur.

This inspection schedule is required by 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.15). The inspections required by this program are conducted by qualified individuals assigned the responsibility to detect any problem or unsafe conditions at the facility and take appropriate corrective action.

The inspection schedule includes both general facility inspection requirements and specific operational unit inspections. General facility inspections include facility-wide operations such as site security, safety and emergency equipment. Inspection of specific operational units includes items such as the container storage buildings, loading/unloading areas, tank storage areas and recycling/treatment areas.

This schedule identifies all areas and equipment which must be routinely inspected and provides minimum inspection frequencies. This schedule is maintained at the facility at all times, and updated as required whenever any changes take place.

7.2 INSPECTION PROGRAM ADMINISTRATION

The operations manager is fully responsible for implementation of this inspection schedule and for assigning staff to perform the required inspections.

Inspection findings are recorded in facility records and any noted problems are brought to the immediate attention of the operations manager. The operations manager then

directs appropriate personnel to implement required remedial and corrective measures.

7.3 CORRECTIVE MEASURES

Conditions noted during the inspections such as deterioration, malfunctions of equipment or structures, etc. are remedied in a timely manner to minimize a threat to human health or the environment. Corrections are made immediately where damage has already occurred (leaks, spills, etc.) or where an imminent hazard is noted. Emergency and notification procedures specified in the Contingency Plan are followed in the event of any spill, leak, or other emergency.

7.4 RECORDKEEPING

Inspections (and re-inspections) are conducted and documented using forms specifically designed to contain all pertinent information. The facility uses an electronic inspection system which are accessed and maintained in the Clean Harbors ***Waste Information Network*** (*WINWeb*). *WINWeb* is a totally networked, single web based system that has a multitude of functions that includes standardized inspection forms conducted on a regulatory-based schedule. The inspection forms are utilized to assist in the retention and tracking of inspection results. WINWeb includes the date and time to indicate when the inspections were completed.

Periodic inspection forms (i.e., daily, weekly, monthly, etc.) are used which identify the facility unit or equipment, inspectors name, date and time of inspection, as well as, a checklist indicating the status of the inspected equipment or structure. Prepared forms are provided which identify the equipment and units to be inspected and inspection intervals. These forms may be periodically modified to fit the needs of the facility. Equipment or units not in use are inspected routinely and a notation of this operational status is made. The inspector's assessment and observations are recorded on the form. The completed form is maintained in WINWeb and tracked by the operations manager. All inspection forms include the date and time of inspection, name of the

inspector, a notation of observations made when applicable and the date and nature of any repairs or other corrective actions.

In cases where specified outside contractors are used to perform testing or inspection services, the results are reported on the contractor's forms. These reports are made part of the inspection log when received.

7.5 INSPECTION SCHEDULE

Safety-Kleen Systems, Inc.'s inspection schedule is provided in Table 7.1. This schedule, developed in accordance with 250-RICR-140-10-1(1.10.2) which incorporates 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.15) specifies the following:

- Operational and emergency equipment, security devices, processing/recycling units and storage areas required to be inspected.
- Problems and signs which could signal a release or potential release.
- Time schedule for inspections.

TABLE 7.1

FACILITY INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT TYPE OF PROBLEM	INSPECTION FREQUENCY
SECURITY DEVICES		
Doors	Lock and Check Check for proper lock function	**Daily**
Intercom Alarm System	Check for operation	**Monthly**
Warning Signs	Check for presence and visibility of warning signs	**Monthly**
Motion Sensors	Activate System Check operation of detectors	**Daily**
Windows	Check for damaged or broken windows	**Monthly**
Chain link fence and gate along Mill Street	Check for damage or breaches	**Monthly**
SAFETY AND EMERGENCY EQUIPMENT		
Protective Gear (i.e., boots, gloves, aprons, goggles, face shields, disposable suits, disposable bags)	Check accessibility Check for adequate supply Check for deterioration, damage	**Monthly**
Breathing Apparatus (i.e., respirators, respirator cartridges, self-contained breathing apparatus)	Check for accessibility Check for adequate supply, full charge on SCBA air tank Check for deterioration, damage	**Monthly**
Emergency Showers and Eye Wash Stations	Check that units activate and shut off properly	**Monthly**

EQUIPMENT	INSPECTION ELEMENT TYPE OF PROBLEM	INSPECTION FREQUENCY
Alarm Systems (Air horns)	Check accessibility	**Monthly**
Internal/External Communication System (telephone)	Check for operation	**Monthly**
Fire Alarm Pull Stations	Operability test	**Yearly**
Fire Extinguishers	Check pressure gauge for full charge indication Check inspection tag to ensure annual maintenance by outside fire service is up-to-date Check seal for damage/usage	**Monthly**
Fire Extinguishers	Maintenance check and hydrostatic testing per 29 CFR 1910.157 and NFPA standard 10	**Annually**
Fire Sprinkler System	Check pressure gauge and valves for full charge and proper water pressure Check for leaking valves	**Monthly**
Fire Sprinkler System	Maintain current inspections in accordance with local ordinance	**Semi-annual**
Absorbent Supply	Check for accessibility and adequate supply	**Monthly**
Empty Recovery Drums	Check for accessibility and adequate supply	**Monthly**
Other Emergency and Decontamination Equipment	Check for adequate supply Check for deterioration/damage	**Monthly**

EQUIPMENT	INSPECTION ELEMENT TYPE OF PROBLEM	INSPECTION FREQUENCY
CONTAINER STORAGE		
Container Loading/Unloading Areas, Truck-to-Truck Transfer Areas and Sampling Staging Areas	Check for evidence of spilled material on floor area or truck floor Check for removal of used absorbent and cleaning materials Check to ensure that all containers are removed from the receiving/loading/sampling area. Check for cracks or damage to floors Check for proper utilization of grounding/bonding equipment on flammable being transferred.	**Daily**
Container Storage Areas	Check for evidence of spilled material on floor Check for removal of used absorbent and cleanup materials Check for cracks and damage in floor or berms	**Daily**
Stored Containers	Check for drum leaks or swelling Check for drum corrosion/deterioration Check that drums are closed Check for proper placement/stacking Check adequacy of aisle space Check for proper labeling	**Daily**
PROCESS OPERATION		
Consolidation Area	Check for spills Check for proper labeling Check for availability of bonding and grounding equipment Check for proper utilization of grounding/bonding equipment on flammable being transferred.	**Daily**

EQUIPMENT	INSPECTION ELEMENT TYPE OF PROBLEM	INSPECTION FREQUENCY
ABOVEGROUND STORAGE TANKS		
Aboveground Storage Tanks	Check for Deterioration Check for spills/leaks Check construction material and area around base of tank for signs of erosion or releases of hazardous materials (i.e., wet spots) Check above-ground piping, and connections, transfer pumps, and valves Check for proper utilization of grounding/bonding equipment on flammable being transferred. Check visual level gauges or high level alarms.	**Daily**
Secondary Containment System	Check for signs of erosion or releases Check for releases/accumulated liquid Check for cracks, gaps	**Daily**
PUMPS/VALVES/FLANGES/ETC. (In Organics Service Subject to 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264 Subpart BB)		
Organics Transfer Pumps and Valves (In Light liquid service - Located in Buildings C and D)	Monitor for leaks per 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.1063) Check for proper pump operation	**Monthly**
Transfer Pumps	Check pump seals for liquid dripping	**Daily**
Flanges/Connections	Monitor for leaks per 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.1057)	**Monthly**

EQUIPMENT	INSPECTION ELEMENT TYPE OF PROBLEM	INSPECTION FREQUENCY
AIR EMISSION MONITORING FOR STORAGE TANKS AND CONTROL DEVICES		
Tank/Container Covers	Visual inspection and monitor per 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.1089)	**Once every 6 months** (unless has remained sealed and closed since last inspection or unless exempted by 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.1089(a)(3))
Closed-Vent Systems and Emissions Control Devices (currently Activated Carbon System on exhaust to distillation system vacuum pump)	Inspect control device equipment to ensure proper operation Monitor exhaust from activated carbon systems	**Per operation/use** **As required by** 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.1033)

SECTION 8.0

RECORDKEEPING AND REPORTING

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 8.0 RECORDKEEPING AND REPORTING

Table of Contents

8.0 RECORDKEEPING AND REPORTING

8.1 GENERAL

Safety-Kleen Systems, Inc. maintains accurate records (Operating Record) pertaining to all hazardous and non-hazardous wastes accepted, stored, processed at the facility and wastes shipped off site. These records will be used to document and manage operations at the facility, as well as to maintain compliance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.73) as referenced by RIDEM OLR&SMM hazardous waste management regulations.

The facility uses a totally networked, single web based system known as the ***Waste Information Network*** (*WINWeb*). *WINWeb* has a multitude of recordkeeping functions which enables maintenance of accurate records pertaining to hazardous waste accepted, stored, and managed at the Safety-Kleen Systems, Inc. facility. These records are used to document and manage operations at the facility, as well as to maintain compliance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.73) . A hard copy of the records are readily available for downloading and printing for review by inspectors. WINWeb incorporates the date and time for signatures, manifest tracking activities, waste tracking activities, processing activities and lab results.

8.2 RECORDKEEPING SYSTEM OPERATING RECORDS

The WINWeb computerized record keeping system records:

1. Generator information.
2. Generator Profile information.
3. Waste characteristic information.
4. Analytical results.
5. Manifest transition.

6. Waste records.
7. Process records.
8. Operations logs
9. Inspection logs.
10. Other specific records as set forth in Section 7.2 of the Permit.

The Operating Record contains the following:

1) Waste Information for each hazardous waste received at the facility.
   - Description including common name, EPA or RIDEM waste number and physical form
   - Quantity (weight or volume and density)
   - Date accepted
   - Manifest document/tracking number
   - Generator's name and EPA ID number
   - Manifest discrepancies, if any
   - Methods (by EPA's handling codes) and dates of treatment, consolidation etc.

2) The location of all hazardous waste at the facility and the quantity at each location.

3) Records and results of waste analysis and monitoring, per 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.73(b)(6)).

4) Summary reports of all incidents that require implementation of the facility's Hazardous Waste Contingency Plan;

5) Records and results of daily, monthly, weekly and annual facility inspections as specified in the Facility Inspection Schedule including tank inspection records;

6) Copies of notices sent to generators from whom waste is received of

Safety-Kleen Systems, Inc.'s appropriate permits and acceptance of the generator's waste;

7) Certification that a hazardous waste reduction program is in place and proposed methods of treatment, storage or disposal are the most practical method available to minimize present and future threats to human health and the environment; and

9) Copies of the land disposal restriction notifications and certifications for each hazardous waste received and shipped at the facility; and,

10) Biennial report on forms provided by RIDEM/USEPA.

11) Closure cost estimate.

All records required by this section, with the exception of the facility inspection records, will be maintained for a period of three (3) years or in accordance with the provisions of 250-RICR-140-10-1(1.7.7) (which corresponds to 40 CFR 262.40), or for such longer periods as is required in an unresolved enforcement action. Inspection records will be maintained for at least three (3) years.

8.3 MANIFEST PROCESSING

8.3.1 Incoming Shipments

All hazardous wastes accepted for storage, treatment/recycling, or consolidation by Safety-Kleen Systems, Inc. will be accompanied by a completed manifest form (or equivalent other authorized form), unless otherwise specifically excepted by the regulations. Hazardous waste will not be accepted unless accompanied by a manifest form which designates Safety-Kleen Systems, Inc. as the receiving TSD facility. Wastes accepted for temporary storage and transfer will have another facility designated. Non-hazardous wastes that are DOT regulated must be accompanied by appropriate shipping papers (i.e., bill-of-lading).

Upon acceptance of a hazardous waste shipment, a Safety-Kleen Systems, Inc.

authorized representative will sign and date the manifest to indicate receipt of the shipment, note any significant discrepancies.

8.3.2 Manifest Discrepancies

Safety-Kleen Systems, Inc. personnel will check each incoming shipment of hazardous waste against the manifest for significant discrepancies.

Significant discrepancies include:

a) For containerized waste, a variation in piece count from that stated on the manifest;

b) A discrepancy in the type of waste reported on the manifest; or

c) For bulk waste, a variation of more than 10% in weight or volume from that stated on the manifest.

If there is a significant manifest discrepancy, Safety-Kleen Systems, Inc. will contact the generator and attempt to reconcile the discrepancy within 15 days of acceptance of the waste shipment. If there is no resolution, Safety-Kleen Systems, Inc. will submit a written report, with a copy of the manifest, to RIDEM describing the discrepancy and reconciliation attempts.

8.3.3 Outgoing Shipments

All shipments of hazardous wastes from Safety-Kleen Systems, Inc. will be to authorized treatment, storage, recycling or disposal facilities and will be accompanied by a properly completed manifest form in accordance with 250-RICR-140-10-1(1.7) (which corresponds to 40 CFR 262 Subpart B). Non-hazardous wastes that are DOT regulated will be accompanied by appropriate shipping papers (i.e., bill-of-lading).

8.4 LAND DISPOSAL RESTRICTIONS

8.4.1 Documentation

Land Disposal Restriction (LDR) Notifications or Certifications are completed in accordance with 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7). All shipments initiated by Safety-Kleen Systems, Inc. to a treatment, storage, recycling, or disposal facility are accompanied by a completed Land Disposal Restriction Notification or Certification in accordance with 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7).

8.4.2 Incoming Wastes

Prior to acceptance, all incoming shipments of hazardous waste are checked for compliance with the LDR documentation specified in 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7). All documentation must be signed by an authorized representative of the generator.

a. Land Disposal Notification

Hazardous wastes which do not meet LDR treatment standards, or are subject to a specified technology must be accompanied by a "written notification" which must include:

1) EPA hazardous wastes number(s)
2) Waste constituent name (as required)
3) Whether it is a wastewater or non-wastewater
4) Manifest number
5) Wording that the waste does not meet treatment standards
6) Other wording as required by 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7).

b. Land Disposal Certification

For hazardous wastes which meet the LDR treatment standards and can be land disposed without further treatment, a notice in which the generator certifies that the waste meets applicable treatment standards must accompany the waste. The same information listed above for a notification must be included. Additionally, specific wording for the certification is required and is provided in 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7(a)(2)).

c. Notification for Variances/Exemptions

For wastes which have been granted a case-by-case extension under 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.5), an exemption under 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.6), or a nationwide capacity variance, a notification stating that the waste is not prohibited from land disposal must accompany the waste. The notification must include the same information described above for notifications, as well as the date the waste becomes subject to the prohibition.

8.4.3 Outgoing Hazardous Waste

Safety-Kleen Systems, Inc. is considered the "generator" of hazardous wastes shipped by the facility and must comply with LDR documentation and record keeping requirements in 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268). Waste shipments accepted by Safety-Kleen Systems, Inc. will be processed in one of the following manners:

1) Recycled/Treated and residuals and/or resultant material shipped
2) Commingled with other wastes and shipped
3) Shipped off-site in the same container it was received in

Depending on the testing data or knowledge of the waste, Safety-Kleen Systems, Inc. completes a Land Restriction Notification or Certification in accordance with 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.7) including all pertinent information

as described above.

For wastes which will be directly re-shipped, Safety-Kleen Systems, Inc. relies on information provided by the originating generator (based on the generator's waste profile form and LDR notice) to complete the LDR notification or certification.

8.5 UNMANIFESTED WASTE REPORT

Safety-Kleen shall prepare unmanifested waste reports in accordance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.76). If Safety-Kleen accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by 250-RICR-140-10-1(1.8.5) (which corresponds to 40 CFR 263.20(e)), and if the waste is not excluded from the manifest requirement by the RIDEM OLR&SMM hazardous waste regulations, a letter shall be submitted to the RIDEM within fifteen (15) days after receiving the waste.

The unmanifested waste report shall contain the following information:

(1) The EPA identification number, name and address of the facility;

(2) The date the facility received the waste;

(3) The EPA identification number, name and address of the generator and the transporter, if available;

(4) A description and the quantity of each unmanifested hazardous waste the facility received;

(5) The method of treatment, storage, or disposal for each hazardous waste;

(6) The certification signed by the owner or operator of the facility or his authorized representative; and,

(7) A brief explanation of why the waste was unmanifested, if known.

SECTION 9.0

CONTINGENCY PLAN AND PREPAREDNESS AND PREVENTION SYSTEMS

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 9.0

CONTINGENCY PLAN AND PREPAREDNESS AND PREVENTION SYSTEMS

Table of Contents

SECTION 9.0

CONTINGENCY PLAN AND PREPAREDNESS AND PREVENTION SYSTEMS

9.1 Purpose

This Contingency Plan has been prepared in accordance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264 Subpart D) and will be used in the event of an emergency at Safety-Kleen Systems, Inc.

This plan delineates the course of action necessary to avoid damage to human health or the environment in the event of an emergency. Included in this plan are specific actions to be taken in the event of a fire, explosion, spill, flood, or any other unplanned release of waste into the environment. This plan also provides names and phone numbers of the emergency coordinators and outlines their responsibilities and duties. An evacuation plan for facility personnel is also included.

The purpose of this plan is:

- To act as a guide during actual emergency situations;
- To minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden release of hazardous materials stored on site;
- To familiarize local emergency response personnel (i.e., police, fire and rescue departments, hospital, and government personnel) with the types of material handled and internal emergency response procedures.

The following information is included in this plan:

- General Facility Description including general identification of waste types;
- Emergency Response Chain of Command including Emergency Coordinators, their responsibilities and emergency service phone numbers and addresses;
- Emergency Procedures including response procedures for various emergencies

that could occur;

- Evacuation Plan including when, where and how to evacuate the facility;
- Characteristics of Wastes including a description of hazards, appropriate personal protective equipment, storage, and fire-fighting methods for each type of waste;
- Emergency Equipment including communications and alarm equipment, fire control equipment, spill control equipment, decontamination equipment and first aid equipment;
- Coordination Agreements including arrangements with local police, fire department, hospital, state agencies and an emergency response contractor;
- Notification Requirements.

9.2 LOCATION OF PLAN

Copies of this plan are maintained at Safety-Kleen Systems, Inc.'s main office for use during an emergency. In addition, a copy has been submitted to local police and fire departments, local hospitals and the Rhode Island Department of Environmental Management.

9.3 GENERAL FACILITY DESCRIPTION

Safety-Kleen Systems, Inc. is a hazardous and non-hazardous waste recycling/treatment, storage, and transfer facility located at 167 Mill Street, Cranston, Rhode Island. The company's primary activities involve the acceptance, storage and recycling/treatment of wastes including flammables, combustibles and halogenated solvents/toxics and waste oil, oily water, contaminated water and non-hazardous wastes. Wastes are stored at the facility in tanks and containers. The wastes and the handling methods for each are described in Table 9.1. Table 9.2 provides a description of the hazards of each category of waste handled at Safety-Kleen Systems, Inc. A

layout of the facility with labeling of waste storage and recycling/treatment areas is provided in Plan numbers 5 through 11 and 14. A layout of the facility's secondary containment areas and evacuation routes are provided in Figures 9.1 through 9.6.

9.4 EMERGENCY RESPONSE CHAIN OF COMMAND

The first and most basic step in responding to an emergency involving hazardous and non-hazardous waste is to have an established chain of command of trained, experienced personnel. Such a chain of command has been established at Safety-Kleen Systems, Inc. and is described in this Section.

At all times, there will be at least one person, either at the facility or immediately available, who will be responsible for coordinating all emergency response measures. This person will be called the Emergency Coordinator, or designated Alternate Emergency Coordinators, and will have full authority to commit the resources needed to carry out the measures provided in this plan. The Emergency Coordinator shall be contacted immediately in case of an imminent or actual emergency at the facility. The Primary Emergency Coordinator should be contacted first. If the Primary Emergency Coordinator cannot be contacted, the other Alternate Emergency Coordinators should be called in the order which their names appear on the list. This contact will be made by Safety-Kleen Systems, Inc. personnel during operating hours or by an emergency response service group (i.e. Lincoln Environmental, Clean Harbors or other permitted emergency response company) responding during off-hours. Each Emergency Coordinator is thoroughly familiar with this contingency plan, all operations and activities at the facility, the location and characteristics of the wastes handled, the location of all facility records, the facility layout, and the location of all emergency response and spill clean up equipment.

The names and phone numbers of all persons authorized to act as Emergency Coordinators, listed in the order in which they are to be contacted, are provided, below.

9.4.1 Designated Emergency Coordinators

a. Primary Emergency Coordinator

Name:	Nicole Erdy, Facility General Manager
Home Town:	62 Putnam Pike, Johnston, RI 02919
Office Phone:	(401) 781-0808 ext. 2440
Cell Phone:	(513) 814-2838

b. Alternate Emergency Coordinator

Name:	Brian Crawford, Chemical Operations Manager
Home Town:	859 Glebe Street, Taunton, MA 02780
Office Phone:	(401) 781-0808 ext. 2441
Cell Phone:	(617) 293-1979

9.4.2 Emergency Coordinator's Responsibilities

At all times, at least one Emergency Coordinator will either be on the facility premises or on call and able to reach the facility in a short amount of time. The Emergency Coordinator has responsibility for coordinating all emergency response measures. Safety-Kleen Systems, Inc. Emergency Coordinators are familiar with all aspects of this contingency plan, facility operations, the location and characteristics of managed wastes, the location of records within the facility, and the facility layout.

Anytime the facility contingency plan is activated, at a minimum, RIDEM will be notified at (401) 222-3070 or (401) 222-1360 directly at the emergency response center.

a. Immediate Action

In the event of an actual or imminent emergency (fire, explosion and/or release of hazardous waste to air, soil or surface water), the Emergency Coordinator must immediately do the following:

- Activate internal facility alarms (verbal or air horn) or communication systems to notify all facility personnel;
- Ensure that all personnel (employees and visitors) are accounted for and isolated from danger;
- Arrange for emergency services for any injured personnel. ;
- Identify the character, exact source, amount, and extent of released material;
- Assess possible hazards to human health or the environment that may result from the emergency;
- Notify state or local emergency response teams, if necessary;
- Decide whether evacuation of the facility and surrounding area is necessary and advise appropriate local officials on need for evacuation of surrounding areas; and,
- Notify and contract with outside emergency response or remediation contractors, if necessary.

b. Release Identification and Assessment

The release identification described above may be made through direct observation, review of operating records, manifests, waste analysis reports, or chemical analyses. The assessment of possible hazards to human health or the environment that may result from any release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated or the effects of any hazardous surface water run-off from water or chemical agents) described above must consider both direct and indirect, actual and potential effects.

c. Danger Outside the Facility

If the emergency threatens or could threaten human health or the environment outside the facility, the Emergency Coordinator must:

- Notify local authorities (Cranston Police and Fire Department) if evacuation of local areas is advisable;
- Immediately notify the National Response Center at (800) 424-8802 and report:
  - a) Name and telephone number of reporter;
  - b) Name and address of facility;
  - c) Time and type of incident (e.g., release, fire);
  - d) Name and quantity of material(s) involved;
  - e) The extent of injuries; and,
  - f) The possible hazards to human health or the environment outside the facility.
- Immediately notify the RIDEM at (401) 222-2797 (business hours) or (401) 222-3070 (other times).

In determining whether the evacuation of local areas is necessary, the Emergency Coordinator will assess the following:

- Prevailing wind conditions
- Potential for migration of hazardous releases outside the facility
- Possibility of fire or explosion
- Possibility of additional releases

d. During An Emergency

The Emergency Coordinator will take measures (including, where applicable, stopping operation, isolating leaks or discharges, and authorizing appropriate personnel to collect and contain release waste and removing or isolating containers) to ensure that fires, explosions or releases do not occur, recur, or spread to other hazardous waste at the

facility. Such measures will be directed at preventing intermixing of potentially incompatible wastes.

e. After An Emergency

After an emergency, the Emergency Coordinator will do the following:

- Note in the operating record the time, date, and details of the incident. Follow up with written report to DEM within 15 days for spills involving hazardous materials or any other emergency occurrence (e.g., fire and explosion);
- Immediately supervise cleanup efforts and ensure that the recovered waste or contaminated material is properly treated, stored, or disposed of;
- Ensure that no waste which may be incompatible with the released material is stored or treated until cleanup procedures are completed; and,
- Make sure emergency equipment is replenished and in working order before operations resume.
- After a significant event like a hurricane, fire or flood which causes extensive damage to the facility, the LEPC and DEM will accompany Safety-Kleen personnel upon re-entering the facility to survey the damage.

9.4.3 Phone Numbers of Emergency Services

The following are addresses and phone numbers of local, state, and national emergency response teams, government agencies, and contractors. In the event more than one agency responds to Safety-Kleen Systems, Inc. during an emergency, the following order establishes a chain of command.

a. Fire Department

Cranston Fire and Rescue Department
Location: 301 Pontiac Avenue, Cranston, RI 02910

EMERGENCY: DIAL 911

Telephone: (401) 461-5000 (24 hours)

b. Police Department

Cranston Police Department

Location: 5 Garfield Avenue, Cranston, RI 02910

EMERGENCY: DIAL 911

Telephone: (401) 942-2211 (24 hours)

c. Rhode Island Department of Environmental Management

Office of Land Revitalization and Sustainable Materials Management

Location: 291 Promenade Street, Providence, RI 02903

Phone: (401) 222-2797 (Working Hours - Mon-Fri 8:30 am - 4 pm)
(401) 222-3070 (Other hours)
(401) 222-1360 (Emergency Response Office)
(800) 498-1336 (to report from outside of RI)

d. Local Emergency Planning Commission

LEPC Deputy Fire Chief, Cranston Fire Department - (401) 413-8555

e. Emergency Response/Remediation Contractors

Safety-Kleen has contracted with EMI as our nation-wide emergency response contractor. Incidents will be immediately reported to INFOTRAC, Safety-Kleen's 24-hour emergency hotline service. INFOTRAC will collect all of the information needed and immediately contact EMI for emergency response. If EMI is not able to quickly respond from one of their locations, they will contact a local emergency response contractor from a pre-established list or the Clean Harbors Environmental Services, Inc. Field Service Office.

INFOTRAC: (800) 468-1760 (24 Hour Hotline)

Clean Harbors Environmental Services, Inc. Field Service Office

Providence/Cranston, Rhode Island

Phone: (401) 431-1847 (Business Hours)

Phone: (800) 645-8265 (Off Hours)

f. Rhode Island Hospital

Location: 593 Eddy Street, Providence, RI

Phone: (401) 444-4000

g. R.I. Poison Control Center

Phone: (401) 444-5727

h. National Response Center

Phone: (800) 424-8802

i. Chemical Transportation Emergency Center (CHEMTRAC)

Phone: (800) 424-9300 (24 hour number)

9.5 EMERGENCY PROCEDURES

9.5.1 General

Emergency procedures are the responsibility of the Emergency Coordinator or alternate. In the event there is no Emergency Coordinator on site, the emergency procedures will be directed by the senior facility staff member until an Emergency Coordinator arrives. Such procedures are specifically outlined and described in this plan. In the event of an imminent or actual emergency, the specific procedures outlined in detail will be followed. The most important factor is to protect responding personnel and others from danger due to the release, fire or potential explosion.

Due to the nature of the waste materials handled at the facility, various hazards can result from an emergency situation. For a discussion of waste properties and associated hazards, please refer to Table 9.2. By following proper response procedures these hazards are greatly reduced.

9.5.2 Specific Emergency Procedures

This plan has been developed and organized in such a way as to afford maximum guidance during an incident of any magnitude. The Emergency Coordinator and other personnel employed by Safety-Kleen Systems, Inc. are thoroughly familiar with this document and will follow prescribed procedures in the event of an emergency. Should an emergency situation arise, the Emergency Coordinator will be notified immediately. Subsequently, necessary facility personnel will be notified when required. Fire and police departments, hospitals, federal, state or local agencies, and contractors will be notified if their assistance is required.

Response personnel, who will respond to spill, including spills involving fires, are the Plant Manager, Operations Manager, Maintenance Supervisor and employees trained in emergency response.

a. Spills - Not Involving Fires

The following procedures have been developed to respond to releases of wastes that do not involve fires. In responding to such spill situations, the Emergency Coordinator may elect to bring in outside contractors if their assistance in controlling the spill is required.

In the event of a spill, leak, or release of hazardous or non-hazardous waste, the following procedures will be followed:

a) The person discovering the release will immediately notify the Emergency Coordinator.

b) Stop the source of the release immediately if it can be done without risk of personal injury. This action may involve closing a truck or tank valve, righting a container, etc.

c) The Emergency Coordinator will determine the identity of the material released, amount, and area affected by the release.

Waste can be classified using labels, waste storage records, manifests, or knowledge of waste storage practices.

d) The Emergency Coordinator will eliminate and continue to restrict all activities and operations from the spill area and areas downwind of the spill area. The Emergency Coordinator will prescribe appropriate personal protective equipment to be donned.

e) The Emergency Coordinator will determine whether any other operations at the facility are affected by the spill and will take all reasonable measures necessary to ensure that the release does not recur or spread to another hazardous waste at the facility. These measures will include, where applicable, ordering operators to stop processes or operations and removing or isolating containers. Operators will perform these tasks, as ordered. The Emergency Coordinator will monitor operations after shutdown for leaks, pressure build-up, gas generation, ruptures in valves, pipes or other equipment or other problems.

f) Evacuation Assessment: The Emergency Coordinator will assess possible hazards to human health and the environment by considering both direct and indirect effects of released material in order to determine if evacuation of facility personnel will be necessary and of evacuation of surrounding areas is advisable.

g) Contractor Assessment: The Emergency Coordinator will assess the size and rate of growth of the spill to determine whether the spill can be managed by facility personnel. Outside assistance will be summoned if necessary.

h) Response Procedure by Trained Spill Response Personnel:

i) Responding personnel will don appropriate protective equipment as directed by the Emergency Coordinator.

ii) Position ABC fire extinguishers near immediate cleanup area when necessary.

iii) Remedy and stop point source where possible.

iv) Dike spill with standard industrial absorbent as required.

v) Absorb spilled material with standard industrial absorbent or pump to containers or a compatible tank, after flow is controlled and contained. Shovels and brooms will be used to uniformly disperse absorbent over affected area. For larger spills, the outer area will be remediated first, working inward. Physical contact with spilled material will be minimized as a safety priority.

vi) Collect contaminated material (e.g., absorbent, rags, etc.) for proper disposal in a labeled container.

vii) Decontaminate personal protective equipment.

viii) Clean, restore, or replace spill response equipment and return it to its original location before resuming operations.

ix) Label recovery drums in accordance with applicable rules and regulations.

b. Fire or Explosion

The Emergency Coordinator will contact the Cranston Fire Department at (401) 461-5000 (24 HRS) or call 911 in the event of any fire, large or small.

Depending upon the magnitude of the fire incident and the amount and type of material involved, the following emergency procedures will be implemented.

1) **Small Spill on Fire**

a) Where there is no risk of personal injury or harm to the environment, grab fire extinguisher from the most immediately accessible location and extinguish flames by directing extinguishing media to the base of the flames and being careful not to spread burning liquid. If unable to immediately extinguish flames, sound closest available alarm, leave area, and follow procedures for large fires.

b) Immediately notify the Emergency Coordinator.

c) Eliminate and continue to restrict all sources of ignition so that the fire will not re-ignite or spread to other hazardous waste at the facility. The Emergency Coordinator will order operators, where applicable, to stop processes and operations and to remove or isolate containers. If processes and operations are stopped, then the Emergency Coordinator will monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, wherever applicable.

d) Wear appropriate protective equipment as directed by the Emergency Coordinator, and when it is safe to do so, stop the leak. Absorb spill with absorbent or pump to containers or tank. The Emergency Coordinator will designate tank or containers to be used.

e) Follow spill cleanup procedures described in previous Section.

2) Large Fire

a) If fire can be extinguished with a fire extinguisher, follow the procedures in previous Section for small fires; otherwise, follow these procedures. The Emergency Coordinator will take all reasonable measures necessary to prevent the spread of the fire to other hazardous waste at the facility, if this can be done without undue risk to facility personnel. This includes, where applicable,

ordering operators to stop processes and operations and removing or isolating containers. If processes or operations are stopped, the Emergency Coordinator will monitor for leaks, pressure build up, gas generation, or ruptures in valves, pipes or other equipment, where applicable, if this monitoring can be performed without undue risk to facility personnel.

b) Sound emergency alarms (intercom, air horn and fire alarm box).

c) Notify **Supervisor** who will immediately notify **Emergency Coordinator**.

d) Call **Cranston Fire and Rescue Department** (461-5000 or 911) from nearest safe and accessible phone.

e) The **Emergency Coordinator** will take all reasonable measures necessary to prevent the spread of the fire to other hazardous waste at the facility, if this can be done without undue risk to facility personnel. This includes, where applicable, ordering operators to stop processes and operations and removing or isolating containers. If processes or operations are stopped, the Emergency Coordinator will monitor for leaks, pressure build up, gas generation, or ruptures in valves, pipes or other equipment, where applicable, if this monitoring can be performed without undue risk to facility personnel. If the signal is given to evacuate, all personnel in the affected building(s) will stop their operations if it can be done without risk to personnel. Notify Emergency Coordinator of work area status.

f) Depending on the potential for explosion or release of toxic gases, evacuation of personnel in the surrounding area may be advisable. The Emergency Coordinator will assess possible hazards to human health and the environment by considering both direct and indirect

effects of released material in order to determine if such evacuation is advisable. (See Evacuation Plan Section).

g) Determine the most accessible and safest route of approach to the fire. Consider flame migration potential, associated dangers, and physical limitations. Attempt to determine the nature of burning material using records of tank and container contents.

h) Trained personnel will don protective equipment as directed by the Emergency Coordinator.

i) When fire department arrives, delegate primary responsibility to them. Stand by to provide assistance.

j) When fire is extinguished, remedy point source to stop flow if it can be done without risk.

k) Dike spilled material and fire run-off water with standard industrial absorbent.

l) Absorb spilled material or pump to an empty tank or empty containers as directed by the Emergency Coordinator. Use shovel and brooms to apply standard industrial absorbent over affected area.

m) Collect contaminated material (e.g., absorbent, dry chemical, rags, etc.) in containers.

n) Decontaminate personal protective equipment in accordance with the Safety-Kleen Systems, Inc. personal protective equipment program.

o) Clean, restore, or replace emergency response equipment, and return it to its original location before resuming operations.

p) Label and mark recovery drums in accordance with applicable rules and regulations.

c. Medical Emergencies

A first aid equipment kit is maintained on site in the laboratory. General response to injuries is as follows.

- If not breathing, give artificial respiration;
- Call emergency medical care - Dial 911;
- In case of contact with material, immediately flush skin and eyes with running water for at least 15 minutes;
- Move victim to fresh air if it is safe to do so;
- If breathing is difficult, give oxygen;
- Remove contaminated clothing and equipment;
- Administer additional first aid as appropriate; and,
- Keep victim warm, and await arrival of emergency medical response unit.

9.5.3 Resumption of Operations

Prior to resuming normal operations, the Emergency Coordinator will ensure that all emergency equipment is inspected and returned to operating condition. The Emergency Coordinator must notify the RIDEM that all emergency equipment has been cleaned and put back in order and that proper cleanup procedures have been followed.

9.6 EVACUATION PLAN

9.6.1 General

In the event that an incident poses a potential threat to human health or safety, the

Emergency Coordinator will evacuate the facility, or, at a minimum, the affected area. If the evacuation of surrounding areas is deemed necessary, the Emergency Coordinator will advise the local police and fire departments and the RIDEM of the potential threat to human health.

Evacuation plan implementation requires prompt and deliberate action. The plan of action described in this section will be strictly adhered to unless, in the opinion of the Emergency Coordinator, modifications during an actual emergency would constitute a better executed evacuation. The evacuation routes as shown on Figure 9.5 will be posted at key locations throughout the facility and office space.

9.6.2 Facility Evacuation

a. Objective

The objective of the Evacuation Plan is to minimize health hazards to employees or visitors from imminent or potential hazards associated with a spill or fire.

b. Evacuation Signal

The facility intercom and/or air horns and verbal commands will be used to signal partial or total facility evacuation. This message will include a warning of the nature of the incident. In the event of total facility evacuation, the Cranston Police and Fire Departments will be immediately notified.

c. Decision to Evacuate

The Emergency Coordinator will make the decision whether or not to evacuate. This decision will be based upon experience in the field and those criteria identified below:

- Nature and toxicity of materials involved
- Possibility of an explosion or spreading fire
- Possibility of a release of toxic vapors, gases or, mists

d. Evacuation Procedures

- The Emergency Coordinator will direct the evacuation.
- The signal for plant evacuation will be activated.
- All hazardous waste activity in the storage and recycling/treatment areas will cease immediately.
- All employees, visitors and, contractors will leave the affected building or buildings by routes shown on the Evacuation Plan (Figure 9.5) unless otherwise directed by the Emergency Coordinator.
- The Emergency Coordinator will determine whether total facility evacuation is necessary and will direct personnel accordingly.
- The Emergency Coordinator will ensure that any tanker truck valves are closed or tankers are removed if such can be done without risk of personal injury.
- Employees must not attempt to obtain personal belongings unless authorized by the Emergency Coordinator.
- During the evacuation, the Emergency Coordinator and appointed aides will ensure that all unauthorized personnel are kept from entering the evacuated area.
- The Emergency Coordinator will account for all personnel and visitors to ensure that no one has been left behind.
- The decision to reenter the facility will be made by the Emergency Coordinator.
- The Emergency Coordinator will obtain rescue services for injured people where required.

e. Surrounding Area Evacuation

If the emergency situation makes the evacuation of areas surrounding the facility advisable, the Emergency Coordinator will immediately inform the Cranston Police and

Fire Departments and the RIDEM of such a condition. The decision to evacuate will be based on the following:

- The nature and toxicity of the material involved in the emergency;
- The prevailing wind direction;
- The migration potential outside the facility;
- The possibility of an explosion or spreading fire; and
- The possibility of a pending release of toxic vapors, gases, or mists.

The signal to evacuate surrounding areas will be given directly by the Cranston Police and Fire Departments who may also notify and request the assistance of the Warwick Police and Fire Departments if evacuation of areas of Warwick are required.

If evacuation is advisable, the police and fire departments, along with appointed Safety-Kleen Systems, Inc. personnel, will apprise all others (industrial, residential, etc.) in the subject area as to the nature of the situation and the advisability to evacuate. In all cases of surrounding area evacuation, all persons so notified will be directed as to the best roads to follow and the best directions to proceed along. These will be determined by the Emergency Coordinator in conjunction with the Cranston Police and Fire Departments.

Whenever the Emergency Coordinator determines that evacuation of local areas may be advisable, he or she must immediately notify appropriate local authorities. He or she must also be available to help appropriate officials decide whether local areas should be evacuated. In addition, the following agencies must be notified:

1) RIDEM must immediately be notified using the emergency spill response number (401) 222-2797 or (401) 222-3070 (24-hour line).

2) He or she must also notify the National Response Center using the emergency spill response number: (800) 424-8802 and provide the required information on the nature of the emergency defined above.

9.7 FLOOD PLAIN LOCATION AND OPERATIONS

Safety-Kleen Systems, Inc. hazardous waste storage and processing operations are located in Buildings A, B, C, D and L of the building complex. All of Buildings A, B C and D are located in the 100 year flood plain of the Pawtuxet River. The storage and recycling/treatment areas are potentially subject to flooding. In the event of a pending flood, the following procedures will be initiated.

1) The National Weather Service, National Oceanic and Atmospheric Agency and/or other potential services will be constantly monitored to determine the time and projected level of the flood crest.

2) The Buildings are constructed of cement foundations and brick walls. The doorway in Building C on the southeast wall facing the Pawtuxet River has a raised threshold and the door along the west wall has a 30 inch high protective dike. These structures will reduce the amount of water that could potentially enter the facility.

3) If the flood crest is expected to result in water above the facility floor,

   - Notifications will be made to cancel any further deliveries of waste to the facility.
   - Any trailers in the yard with waste material on them, either being staged or being delivered in, will be shipped or re-routed to an alternate facility.
   - All man way exterior egress doorways will be securely shut and locked. All rollup exterior doorways will be opened at least1 foot or more to allow water to pass through in the event the sandbag levees are breeched.

- All exterior doorways will be securely sandbagged to a height of at least 3 feet. Pumps will be set up for use in removing flood water that may enter the facility.
- Drums of waste located within the 100-year floodplain will be re-located to the permitted container storage areas in Building L (Figure 4) which are located outside of the 100-year floodplain. Water reactive materials will be moved first (e.g., batteries). Lighter materials (e.g., oils, flammables) will be moved next. The heavier chlorinated solvents will be moved last.
- Containers that have been emptied of waste will also be moved out of the floodplain. They may be moved to Building L or onto trailers for temporary storage or movement off-site.
- While moving the drums outside of the 100-year floodplain area, they will be re-checked to ensure they are tightly closed and then stacked at least two and preferably three high as detailed in Section 4.100. All attempts will be made to locate full 55-gallon drums on the bottom and second level of each stack. Smaller containers will be located on the top (third) layer.

9.8 CHARACTERISTICS OF WASTES

Table 9.2 has been assembled to provide immediate information regarding the types of hazards posed by the various categories of wastes stored and treated at Safety-Kleen Systems, Inc. This information is, by its nature, general. The expertise of plant personnel, especially technically trained personnel, should be relied upon heavily for more detailed information in any emergency.

9.9 EMERGENCY EQUIPMENT

9.9.1 General

250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.52(e)) requires that Safety-Kleen Systems, Inc. maintain a list of all emergency equipment at the facility. In addition, the location of each piece of equipment must be specified along with a brief outline of its capabilities. At a minimum, this plan must include:

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
- A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio, capable of summoning emergency assistance from the local police department or from state or local emergency response teams;
- Portable pumps, fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and
- Water at adequate volume and pressure to supply water hose streams, foam-producing equipment, automatic sprinklers, or water spray systems.

9.9.2 Specific Equipment Maintained at the Facility

Safety-Kleen Systems, Inc. maintains the above equipment at its facility. A listing of available equipment is provided below.

a. Communications Equipment and Alarms

Telephones are available at the facility both in the laboratory and in Building C near the distillation still (portable phone). Attached to each telephone is a list of emergency telephone numbers.

An internal emergency alarm system is maintained at the facility to provide immediate instruction to all personnel. This system consists of an intercom/loudspeaker system which can be heard throughout the facility. In addition, air horns are located throughout the facility.

A single pull fire alarm box is located at the automatic sprinkle control panel located in Building L and on the north wall of the Flammable Storage Room located in Building C.

b. Fire Control Equipment

The following fire fighting equipment is available at Safety-Kleen Systems, Inc.

- Two fire hydrants located in the immediate vicinity of Safety-Kleen Systems, Inc.; along Mill Street and another behind Buildings C and D.
- Three fire engine connectors (Siamese.) to allow the fire department to connect its engine to our fire retardant foam containers and spray the foam and water mixture. One on the West side on building L, One at the Northeast section of building D and one at the South end of Building C;
- At least 20 ABC Extinguishers;
- Sprinkler system in every building equipped with fire retardant foam;

c. Spill Control/Decontamination Equipment

At a minimum, the following spill control/decontamination equipment is available on site:

- Five (5) 55-gallon open head drums
- Several shovels
- A minimum of 1,000 lbs. of industrial absorbent

- Several brooms
- One vacuum pump and hose
- Absorbent filled spill socks for diking

Spill control equipment is located throughout the facility, inspected and maintained as described later in this Section. If used, spill control equipment is cleaned and/or replaced.

d. Personal Protective Equipment

Personal protective equipment provided to each person at the facility includes:

- Half and full face respirators with cartridges for organic vapor
- Protective gloves
- Safety boots
- Rubber aprons
- Safety glasses and goggles
- Face shields
- Protective suits
- Eye wash and shower
- Self contained breathing apparatus (SCBA)

e. First Aid Equipment

Safety-Kleen Systems, Inc. maintains a fully stocked first aid kit in the laboratory and office. In addition, there are emergency eye wash/showers located throughout the facility buildings.

9.9.3 Required Aisle Space

Adequate space is provided in accordance with 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.35) to allow for the unobstructed movements of personnel, spill control equipment, fire control equipment, or decontamination equipment to all

areas of the facility. Unobstructed access is maintained to all fire hydrants for truck hook-up. Unobstructed vehicle access is provided at entrances to all the buildings for emergency response vehicles. Personnel can move freely throughout all buildings and the access road. Therefore, individuals can be assisted in emergencies and fire extinguishers can be brought to the scene, if needed. Within the container storage areas, adequate aisle space is maintained between rows of pallets to allow for personnel movement and for movement of spill control and clean-up equipment (e.g., speedy-dry, open head drums, brooms).

9.9.4 Equipment Testing and Maintenance

It shall be the responsibility of the Manager to periodically test all communication, fire and spill control equipment and to ensure that all spill response, personal protective, and first aid equipment is available on site. Spill control equipment is checked monthly to ensure that an adequate supply of spill control equipment is available and ready for use. Fire extinguishers are checked monthly for pressure and location. The water pressure of the sprinkler system is checked routinely, and the system is tested annually to ensure that it is functioning properly. Inspections are described more fully in the facility inspection plan. Records of inspections are contained in the facility compliance records.

9.10 LOCAL COORDINATION ARRANGEMENTS

250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.52(c)) requires facilities to attempt to make arrangements with the local police and fire departments, hospitals, contractors, and state and local emergency response teams as noted below:

- Arrangements are made with the Cranston Police and Fire Departments and with the rescue team to familiarize them with:
    - The layout of the facility

- Properties and hazards associated with the wastes handled at the facility
- Places where facility personnel would normally be working
- Entrances to the facility
- Evacuation routes

- Arrangements to be made with the RIDEM, Office of Land Revitalization and Sustainable Materials Management, to provide technical support, as needed, during an actual emergency.
- Arrangements to be made with Kent County Hospital to familiarize their personnel with the properties of wastes handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

Said departments, agencies, and emergency response personnel have been requested to provide the services described below in the event of an actual emergency. Each of the agencies noted above has been contacted and sent copies of Safety-Kleen Systems, Inc.'s Contingency Plan.

The following arrangements have been requested:

Cranston Police Department has been asked to provide the following assistance during an emergency:

- Immediate response
- Emergency transport services
- Crowd control assistance
- Communications support
- Security to affected area
- Evacuation of surrounding areas if required

The **Cranston Fire Department** has been asked to provide the following assistance during an emergency:

- Primary emergency authority
- Immediate response
- Primary fire fighting services
- Rescue and emergency transport services
- Communications support

The **Kent County Hospital** has been asked to provide the following assistance during an emergency:

- Primary medical services
- Rescue services

The **Rhode Island Department of Environmental Management** has been asked to provide the following assistance during an emergency:

- Technical Support
- Communications Support

EMI (an emergency response services company) has been asked to provide the following assistance upon request during an emergency:

- Emergency Response
- Emergency Containment
- Clean up and Decontamination
- Debris Disposal

9.11 NOTIFICATION REQUIREMENTS

Following an incident requiring implementation of the Contingency Plan, the following

notifications will be made:

- Before operations resume, Safety-Kleen Systems, Inc. will notify RIDEM that all emergency equipment has been cleaned and replaced and that proper cleanup procedures have been followed.
- Within 15 days after an incident requiring Contingency Plan implementation, Safety-Kleen Systems, Inc. will submit a written report to RIDEM documenting the following:
    - Name, address, and telephone number of the owner or operator
    - Name, address, and telephone number of the facility
    - Date, time, and type of incident
    - Name and quantity of material(s) involved
    - The extent of injuries, if any
    - An assessment of actual or potential hazards to human health or the environment, where applicable
    - Estimated quantity and disposition of recovered material that resulted from the incident
- Within 24 hours, any release of more than one pound from a tank system to the environment (outside secondary containment areas), RIDEM will be notified as required by 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.196). Within 30 days of the release, a report fulfilling the requirements of 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.196(d)) will be filed with RIDEM.
- Other reports such as those required under 40 CFR 302, 355, 110, etc. as applicable.

9.12 CONTINGENCY PLAN AMENDMENT

Safety-Kleen Systems, Inc.'s Contingency Plan and Emergency Procedures Plan will be reviewed and updated, as necessary. The plan will be immediately amended if necessary, whenever:

1) The plan fails in an emergency

2) The facility makes changes in its design, construction, operation, maintenance, or security system, or other circumstances which would increase the potential for fires, explosions, or releases of hazardous waste constituents or which may affect emergency response procedures.

3) There are changes in Emergency Coordinators

4) There are changes in the amount or type of emergency equipment.

5) Applicable regulations are revised

6) The facility permit is revised

If changes are made in the Contingency Plan, updated copies showing these changes will be distributed to local authorities (police, fire, hospitals and any local emergency response team) and the RIDEM.

TABLE 9.1

WASTE CATEGORIES

WASTE CATEGORY	Possible EPA HAZARD CODES	EPA PROCESS and HANDLING CODES
1) Halogenated/Toxic	I, T, E	S01, S02, T01
2) Flammable	I, T	S01, S02, T01
3) Ignitable	I, T	S01, S02, T01
4) Waste Oil	T, I, E	S01, S02, T01
5) Universal and Regulated Waste	T, C, R, E	S01, T01
6) Non-hazardous	NONE	S01, S02, T01
Explanation of Codes	**T** = Toxic **I** = Ignitable **E** = TC Toxic **C** = Corrosive **R** = Reactive	**S01** = Storage in Containers. **S02** = Storage in Tanks. **T1** = Recycling/Treatment in Tanks.

TABLE 9.2

WASTE CONTINGENCY DATA

SUBSTANCE IN STORAGE	CONTINGENCY PLAN
1) Halogenated/Toxic Waste	Life Hazard: Incoordination and impaired judgment may occur at vapor exposures from 300 ppm to 1000 ppm. Dizziness, drowsiness, loss of consciousness and even death can occur at increasing levels of exposure. When involved in fire, emits highly toxic and irritating fumes. Asphyxiation hazard due to oxygen displacement. Personal Protection: Level A protection is required for situations where severe skin and respiratory hazards exist. Level B protection may be worn if the skin hazard is less severe. The Emergency Coordinator has the authority to downgrade the level of protection to C or D if it is safe to do so. Storage: Protect against physical damage. Store in leak-proof containers or tanks. Store in a cool, dry, well ventilated location, away from any area where the fire hazard may be acute. Fire Fighting: Use water spray to keep fire-exposed containers and tanks cool. Water spray may be used to flush spill away from exposures.
2) Ignitable Waste	Life Hazard: Eye and respiratory irritant. Inhalation of solvent vapors may cause death by paralysis of the respiratory center. Some compounds are toxic if ingested and can cause skin irritation through frequent contact. Vapors could travel considerable distance to ignition source. Personal Protection: Level A protection is required for situations where severe skin and respiratory hazards exist. Level B protection may be worn if the skin hazard is less severe. The Emergency Coordinator has the authority to downgrade the level of protection to C or D if it is safe to do so. Storage: Protect against physical damage. Store in leak-proof containers or tanks. Isolate from sources of ignition. No smoking in area. Store flammable/combustible wastes only in designated storage areas. Fire Fighting: Eliminate all sources of ignition. Use dry chemical foam or carbon dioxide (water may be effective). Water should be used to keep fire-exposed containers and tanks cool. If leak or spill has not ignited, use water spray to disperse that vapors and to protect personnel attempting to stop a leak. Water spray may be used to flush spill away from exposures.

SUBSTANCE IN STORAGE	CONTINGENCY PLAN
3) Waste Oil	Life Hazard: Eye and respiratory irritant. Oils are toxic if ingested and can cause skin irritation ("cutting oil dermatitis") through frequent contact. Personal Protection: Level B protection may be worn if high skin/respiratory hazard. The Emergency Coordinator has the authority to downgrade the level of protection to C or D if it is safe to do so. Storage: Protect against physical damage. Store in leak-proof containers or tanks. Isolate from sources of ignition. No smoking in area. Store only in designated area. Fire Fighting: Dry chemical extinguishing media such as powdered limestone, soda ash or dry graphite.
4) Non-Hazardous Waste	Life Hazard: Although these wastes are not hazardous, they can still have toxic or other hazardous characteristics. Do not handle with bare hands or inhale dusts or vapors. Personal Protection: Varies according to specific properties of material. Some require minimal protection, while others require full protective equipment. According to the hazard present, the Emergency Coordinator can prescribe Level A, B or C protection. Storage: Store in leak-proof containers or tanks. Protect against physical damage. Fire Fighting: Use water. Also use water to cool combustibles in vicinity.
5) Universal Waste **Electronic Equipment, Bulbs, Batteries and Ballasts**	Life Hazard: May contain mercury, lead and other metals that pose chronic health effects if ingested, inhaled or absorbed via skin. Certain batteries can pose acute hazards due to corrosive nature of contents (i.e. lead-acid). Personal Protection: Varies according to condition of and specific properties of materials. Routine handling of intact units (i.e. bulbs, batteries, etc.) requires minimal protection. The Emergency Coordinator can prescribe appropriate level A, B or C protection according to the hazard posed. Storage: Protect from physical damage. Store in secure containers or in boxes or on pallets as appropriate for the material. Fire Fighting: Use a water, spray or dry chemical extinguishing media.

End of Contingency Plan

SECTION 10.0

PERSONNEL TRAINING PROGRAM PLAN

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 10.0 PERSONNEL TRAINING PROGRAM PLAN

Table of Contents

10.0 PERSONNEL TRAINING PROGRAM PLAN

10.1 Introduction

This section outlines the personnel training program that has been developed for Safety-Kleen Systems, Inc. personnel, in accordance with the requirements of 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.16). The training program is designed to instruct personnel in how to perform their duties in a way that ensures proper and safe operation of the facility in compliance with the hazardous waste regulations.

Training is necessary to ensure that Safety-Kleen Systems, Inc. personnel are instructed to perform their duties in a way that assures facility and employee safety and compliance with applicable State and Federal hazardous waste regulations. At a minimum, the training program is designed to ensure that facility personnel are able to respond effectively to emergencies. In addition, the training program is intended to provide all personnel with sufficient on-the-job training and classroom instruction so the facility properly accepts, stores, recycles and treats hazardous wastes

10.2 General Review of Training Program

10.2.1 Organization

The employee training program in use at Safety-Kleen Systems, Inc. is designed to train employees in safe handling practices for hazardous and non-hazardous wastes. This training program is kept on file at the facility at all times.

During the training, employees are instructed on:

- Requirements of Safety-Kleen Systems, Inc. RIDEM OLR&SMM Permit;
- The hazardous nature of chemicals and wastes they will be handling at the facility;

- The purpose and requirements of the regulations and the importance of maintaining compliance;
- Proper handling and storage procedures for wastes;
- Emergency procedures and contingency plan implementation;
- Proper use of personnel protective equipment.

The specific type of instruction is determined by each employee's job classification and duties as described in this program. Employees receive instruction necessary to ensure familiarity with requirements to properly and safely manage and operate the facility while maintaining individual safety

10.2.2 Trainer Qualifications

Training is conducted by qualified persons disciplined in hazardous waste management procedures. Trainers complete an OSHA 40-hour class and receive annual update training.

Additional qualified instructors may be retained from outside of the company as needed to fulfill training requirements.

10.2.3 New Employees/Reassignment

The personnel at Safety-Kleen Systems, Inc. are thoroughly trained in the responsibilities of their respective jobs. Records of training are maintained as described in Section 10.4. New personnel hired at the facility to work in the hazardous waste storage and recovery area will not work unsupervised without first completing the training program per Sections 10.3. New personnel will receive training appropriate for their position per Section 10.5 and classroom training per Section 10.3 and both of these types of training will be completed within six months of being hired

10.2.4 Annual Review

All Safety-Kleen Systems, Inc. personnel will take part in an annual training review of

topics in Section 10.40. Records documenting the annual refresher will be maintained as described in Section 10.4.

10.2.5 OSHA Required Training

All personnel whose positions involve hazardous waste operations will receive the training required by 29 CFR 1910.120(p). This training may be combined with or integrated into the training described in this Personnel Training Program where appropriate.

10.2.6 Facility Job Titles and Duties

Personnel who work at Safety-Kleen Systems, Inc. are assigned job titles and responsibilities. A listing of job titles, requisite skills, education or other qualifications and responsibilities is provided in Section 10.5. Updated copies along with names of personnel filling each position are maintained on file at Safety-Kleen Systems, Inc.

10.3 Contents of Training

10.3.1 Classroom Instructions Topics

Each classroom training session involves a detailed review of a number of topics. In addition to classroom training, on-the-job training is provided specific to each job classification as is described in Section 10.5. Classroom training consists of the topics described below:

WASTE IDENTIFICATION

- USEPA Hazardous Waste Identification
- RI, MA and CT Hazardous Waste Identification
- Waste types Safety-Kleen Systems, Inc. is authorized to accept

ACCEPTANCE OF HAZARDOUS WASTE

- USDOT/RIDEM Shipping Requirements

- Manifests
- Labeling
- Marking
- Packaging
- Placarding
- Applicable and relevant US DOT Regulations 49 CFR Parts 171, 172 and 173.

- Sampling Procedures
- Waste Analysis Plan Requirements
- Rejection of Shipments

WASTE HANDLING

- Hazards Associated with Wastes
- Safety Precautions - Safety Equipment
- Spill Containment and Clean Up
- Proper Flammable Consolidation Operations
- Proper Storage of Hazardous Waste
  - Tank and Container Storage Locations
  - Spill Detection and Clean Up
  - Flammable Hazards
  - Labeling and Marking

TREATMENT OF WASTES

- Proper Rail Operations
- Proper Shredder/Mix Tub Operations

- Proper Operation of Compactor/Crusher
- Proper Operation of Filter Shredder
- Proper Operation of Fluorescent Bulb Unit
- Proper Operation of Aerosol Can Processing Unit
- Hazards Associated With Recycling/Treatment Operations

RECORDKEEPING

- Review of required records to embrace the following:
- Operating record
- Manifest record
- Training record
- Inspection record
- Waste analysis record
- Instrumentation record
- Land ban record

INSPECTION REQUIREMENTS

- Facility Inspection Plan
- Review of Required Inspections
- Proper Completion of Inspection Forms

SITE SECURITY

- Requirements Of Site Security Plan
- Inspection of Security Systems

EMERGENCY PROCEDURES

- Content and Intent of Contingency Plan
- Implementation of Contingency Plan
- Spill Containment and Clean Up
- Evacuation Signal
- Evacuation Procedures
- Communications and Alarm Equipment
- Emergency Coordinator's Role and Authority
- Response to fires or explosives

EMERGENCY EQUIPMENT

- Review of Equipment and Location
- Use Of Equipment
- Inspection of Equipment
- Replacement and Repair

Safety-Kleen Systems, Inc. personnel undergo the above described training. Training is reviewed at least once each year, or more frequently as deemed necessary. The training session will be scheduled to allow adequate time for complete coverage of all topics.

10.3.2 Specific On–The–Job Training

Portions of the training required for personnel will be provided in on-the-job training ("OJT"). On-the-job training is necessary to familiarize personnel with equipment and to teach them to safely perform their jobs. Cross-training is conducted so that all facility personnel are familiar with the various operations and equipment at the facility. During on-the-job cross-training sessions, facility operators personnel or training in the proper operation and functioning of facility equipment and how to recognize and respond to

equipment malfunctions.

10.3.3 General Operations Personnel

On-the-job training involves the day-to-day activities of facility operations personnel such as:

- Operation of equipment such as the compactor, shredder, filter shredder, etc.
- Location of specific recycling/treatment, storage and loading/unloading areas and the proper procedures in each one;
- Familiarization with facility treatment and shipment procedures;
- Operation of safety equipment such as fire extinguishers;
- Operation of first aid equipment, eyewashes, safety showers, etc.
- Use and location of personal protective equipment;
- Waste sampling procedures

10.4 Training Records

The Operating Manager maintains documents and records which include the following information:

- Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job and requisite skills, education or other qualifications for each job title.
- A written job description.
- A written description of the type and amount of both introductory and continuing training given to each person.
- Records documenting training for each person.
- Documentation that an annual review of the initial training is held.

Training records and files for each employee are maintained in the on-site facility office by the Operating Manager and/or within the Clean Harbor's *WINWeb* electronic system until closure of the facility for current employees. Records for former employees are maintained at least three years from the last date of employment.

10.5 Personnel Job Duties and Responsibilities

10.5.1 Job Title: Facility Manager

Responsibilities & duties:

A. Responsible for operational profitability of the facility.

B. Manages, directs and organizes all employees.

C. Provide direction and leadership in all aspects of environmental compliance to insure compliance with all laws and regulations.

D. Ensure compliance with all State, Local, and Federal regulations relating to environmental affairs.

E. Insures all employees are trained properly for their specific duties.

F. Implement and administer a computerized record keeping system for facility hazardous waste management activities, where applicable.

G. When authorized, responsible to sign manifests on behalf of the company.

H. Operates distillation equipment and transfer equipment.

I. Insures that daily, weekly and monthly inspections are conducted.

J. Inspects incoming shipments of hazardous waste and takes necessary samples.

K. Maintains all operational records and incoming waste records, including review of hazardous waste manifest.

L. Maintains facility in a clean orderly fashion.

M. Insures regulatory compliance for storage, handling, emergency response, spill control, etc.

N. Acts as primary emergency coordinator.

O. Maintains personnel records including training and employee performance.

10.5.2 Job Title: Maintenance

Responsibilities & duties:

A. Organizes and directs routine maintenance on buildings and equipment.

B. Completes all necessary maintenance reports and inspections.

C. Designs, fabricates and install equipment.

D. Insures proper maintenance of safety equipment and controls.

E. Insures completion of emergency repairs.

10.5.3 Job Title: Operations Specialist

Responsibilities & duties:

A. Unloads and loads truck and tankers.

B. Checks shipping papers and hazardous waste manifest

C. Transfers waste from containers to tanks.

D. Responsible for daily inspections of hazardous waste storage area and storage tanks.

E. Takes all necessary actions to clean up any spilled material.

F. Takes samples from drums for lab evaluation.

G. Maintains facility in clean and orderly fashion.

H. Reports any safety concerns.

I. When authorized, responsible to sign manifests on behalf of the company.

J. Operates waste processing equipment (e.g., oil filter compactor)

10.5.4 Job Title: Lab Technician

Responsibilities & duties:

A. Performs waste acceptance/screening analysis in accordance with Section 5.0, Waste Analysis Plan.

B. Records daily acceptance and screening analysis results of waste on computerized Clean Harbor's *WINWeb* record keeping system.

C. Assists Operations Manager in various functions of computerized waste tracking, compliance management, and enforcement, when applicable.

D. Monitors waste profiles to ensure acceptability of waste from generator and manage re-screening of generators, where applicable.

E. Conducts and/or assists in the training and re-training of new and existing employees.

SECTION 11.0

HAZARDOUS WASTE CLOSURE PLAN AND CLOSURE COST ESTIMATE RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 11.0
HAZARDOUS WASTE CLOSURE PLAN AND CLOSURE COST ESTIMATE

Table of Contents

11.0 HAZARDOUS WASTE CLOSURE PLAN AND CLOSURE COST ESTIMATE

11.1 Introduction

This plan describes how Safety-Kleen Systems, Inc. (SK) will close its hazardous waste facility in a manner that minimizes the need for further maintenance and controls, minimizes or eliminates post-closure escape of hazardous waste, hazardous constituents, or waste decomposition products to the ground, surface waters, or the atmosphere.

The plan sets forth the steps required to be taken by SK to completely clean close the facility. These steps include:

- A description of how and when the facility will be partially, if applicable, and ultimately closed;
- A cost estimate to remove the maximum permitted inventory of wastes in storage;
- A description of the steps needed to decontaminate hazardous waste equipment and structures, hazardous waste residues, and contaminated containment system components;
- A schedule for final closure;
- Certification requirements by an independent registered professional engineer.

SK accepts and handles the hazardous and non-hazardous wastes as described in Section 2.00 of this application.

11.2 Maximum Waste Inventory

Hazardous and non-hazardous wastes are stored in tanks and containers at SK. These wastes are either recycled/treated or are shipped to other authorized hazardous or non-hazardous waste management facilities for treatment or disposal.

The estimated maximum inventory of hazardous waste in storage at any given time is provided in Table 2.3 of this application. Table 3.3 lists the storage tanks available and Table 3.4 lists the container storage areas at SK, along with maximum storage capacities. The total hazardous and non-hazardous waste storage tank capacity is

65,000 gallons, oil filter compactor capacity is 500 gallons, container storage capacity (e.g. drums, totes, roll-offs, etc.) is 98,146 gallons, and universal waste storage capacity is 120,000 pounds.

11.3 Closure Schedule

The following schedule presented in Table 11.1 includes anticipated dates when wastes will no longer be accepted, recycled/treated or stored at SK and intervening closure milestone dates which will allow tracking the progress of closure.

Table 11.1. Closure Schedule

CLOSURE EVENT	ANTICIPATED COMPLETION DATE
1. Waste no longer accepted, stored or treated.	No anticipated closure date
2. Notify DEM of the Closure Initiation Date.	180 days before initiation of closure
3. Final receipt of wastes.	Closure initiation date
4. Remove existing wastes from site (including activated carbon).*	Within 90 days of closure initiation date
5. Clean up residue and decontaminate container storage containment areas.*	Within 120 days of closure initiation date
6. Decontaminate tanks, piping, pumps, and filters.*	Within 120 days of closure initiation date
7. Clean up residue and decontaminate loading/unloading areas and floor and tank containment areas subject to spills.*	Within 140 days of closure initiation date
8. Submit rinse water for analysis.	Within 140 days of closure initiation date
9. Collect concrete chip samples and submit for analysis.*	Within 150 days of closure initiation date
10. Ship wastes from final decontamination and containers of contaminated, absorbent and personal protective equipment to permitted off-site facilities.*	Within 160 days of closure initiation date
11. Submit closure certifications to DEM by owner/operator and a registered PE.	Within 170 days of closure initiation date
12. Closure complete	Within 180 days of closure initiation date

NOTE: *These items require supervision by an independent registered professional engineer.

11.3 Notification of Intent to Close

At least 180 days before the date closure is to begin, Safety-Kleen Systems, Inc. will notify Rhode Island Department of Environmental Management (RI DEM) of the date it intends to initiate closure. In the event that amendments to the Closure Plan are required, the amendments will be submitted to DEM along with the notification of closure. If DEM does not approve the plan or requires it to be modified, SK will submit a new or modified plan to DEM within 30 days of the date it receives notification from DEM.

11.4 Removal of Hazardous Waste Inventories

This section of the Closure Plan describes how hazardous waste stored at the facility will be shipped off site to permitted facilities. All of the actions indicated in this section will be completed within 90 days after the closure initiation date.

Upon closing its hazardous waste storage/treatment facility, SK will ship existing inventories of hazardous wastes to authorized off-site facilities. This will be completed within 90 days after initiation of closure as indicated above.

11.5 Decontamination of Storage and Recycling/Treatment Areas

This section of the Closure Plan describes how facility equipment and structures used to manage hazardous and non-hazardous wastes will be decontaminated.

11.5.1 Tanks/Units and Ancillary Equipment

Once all waste stored in tanks has been shipped off site, the empty tanks, oil filter compactor and mix tub (thirteen tanks/units total) and their ancillary equipment (e.g., pipes, pumps) will be decontaminated. The goal of decontamination will be to render the tanks/units suitable for reuse in another operation or for recycling as scrap metal. It has been determined that the best way to decontaminate the tanks and distillation units will be to perform confined space entries into each one. This will be performed by a

contractor who specializes in this type of work and whose workers are properly trained in OSHA confined space entry and respiratory requirements.

Workers will don Level B or C personal protective equipment (at the discretion of the contractor and PE overseeing the Closure Plan). One or more workers will enter each tank/unit. The interiors of the tanks/units, including the oil filter compactor, will be cleaned with a pressure washer and detergent/cleaning agents. Wash water from the tank cleaning will be used to flush piping, pumps, and other ancillary equipment. Following the washing operation, each tank interior will be rinsed using clean water. This rinse water will be flushed through piping, pumps, and other ancillary equipment. Wash and rinse water will be pumped from the tank/unit using a vacuum truck or other pumping system. Wash/rinse waters will be temporarily stored in the truck or in containers. Waters will be analytically tested to characterize whether or not they are hazardous. Analytical results will determine the proper disposal method(s) and facility. The tank interiors, piping, pumps, and ancillary equipment will then be inspected to ensure no visually observable residue remains (as defined in 250-RICR-140-10-1(1.4) (which corresponds to 40 CFR 268.45, Table 1)

It is estimated that tank/unit and ancillary equipment decontamination will result in approximately 5,650 gallons of contaminated water.

11.5.2 Container Storage, Tank Containment, and Loading/Unloading Areas

Following removal of all containers (including drums, portable totes, roll-offs or other types of containers), container staging and storage areas, container and tank containment areas, and loading/unloading areas will be inspected for residues of hazardous and non-hazardous waste. Any such residues will be cleaned up using brooms, shovels, and other equipment when solids are involved along with absorbent when liquids or semi-solids are involved. The contaminated material will be containerized for shipment to an authorized off-site facility.

The container staging and storage areas, container and containment areas, tank and

container loading/unloading areas will then be decontaminated by cleaning the surfaces with a pressure washer and detergent/cleaning agents then rinsed with clean water. Wash water and rinse water will be collected and transferred to containers or an appropriate tank for shipment to an authorized off-site facility.

Chip samples of each hazardous waste loading/unloading and container and tank storage area will be collected (minimum of 3 chip samples per area), composited and analyzed for the volatile and semi-volatile organic compounds pursuant to 250-RICR-140-10-1(1.17.1) of DEM Site Remediation regulations. Chip samples in each area will be collected by dividing each area into a 5 foot grid and collecting samples from each grid intersect point giving preference to visible stains for the sample location. Decontamination will be considered complete when the analytical results show no individual constituent exceeds the levels listed in 250-RICR-140-10-1(1.17.1) of DEM Site Remediation regulations for direct industrial/commercial exposure unless it is shown that uncontaminated concrete contains levels higher than those in the regulations. The washing/rinsing procedures will be repeated until decontamination is achieved unless otherwise approved by the supervising professional engineer (PE) and/or DEM.

Following analytical testing of the concrete chip samples, the data will be reviewed with the registered PE supervising closure. If decontamination is not complete, the wash and rinse cycles will be repeated.

It is estimated that 5,200 gallons of wash and rinse water (400 gallons per area in 13 areas) will be generated from decontamination of the container staging and storage areas, container and tank containment areas, tank, staging, storage and loading/unloading areas.

11.5.3 Personal Protective and Spill Clean Up Equipment

Following the storage areas decontamination, all contaminated, non-recoverable personal protective equipment and spill cleanup equipment will be shipped to an

authorized off-site facility for disposal.

11.5.4 Facility Status During Closure

During the entire closure process the facility will maintain compliance with applicable RI DEM hazardous waste regulations.

11.6 Certification of Closure

11.6.1 Certification by Owner/Operator

When closure is complete, Safety-Kleen Systems, Inc. will submit a signed certification to RI DEM that the facility has been closed in full accordance with the specifications in the approved Closure Plan.

11.6.2 Certification by a Professional Engineer

During the facility closure operations specified in this plan, SK will obtain the services of an independent registered professional engineer to monitor the operations to ensure that the waste inventory removal operation and the facility decontamination operations are carried out in accordance with this plan. When closure has been completed, the registered PE will submit a written certification to DEM that the facility has been closed in accordance with the specifications in this Closure Plan.

11.7 Cost Estimate of Closure

This section of the closure plan will assess and estimate the anticipated cost of closing the facility. The method of estimating reflects the shipment of all hazardous and non-hazardous waste off site with no consideration given to on-site recycling/treatment.

11.7.1 Closure Cost Estimate and Financial Assurance

The closure cost estimate for the Safety-Kleen System facility is **$ 223,684**. This estimate is based on the maximum inventory of hazardous waste permitted to be stored assuming full implementation of all activity presented in this permit and considers

expenses of treatment/disposal at the time when the estimate was prepared; (see date in footer).

The closure cost estimate is detailed in Table 11.2. This estimate will be included as part of the Part B application to be kept on file at SK. It will be revised whenever a major change occurs in operations (including approved permit modifications), or when RIDEM deems appropriate.[1] The closure cost estimate will be reviewed each calendar year. Adjustments in the cost estimate will be made in accordance with inflation factors.

Additionally, as included in Section 11.9, there are various activities either ongoing or approved as Permit Modifications that required closure plan amendments and revised closure cost estimate. These include completion of the partial closure plan for the inactive distillation system, installation of solidification operations involving a mix tub container in a secondary containment area and implementation of a rail tank car transfer operation. Safety-Kleen is also approved for waste paint operations which will be conducted in areas covered by this closure plan. Waste paint will reduce the total storage capacity and as such is included as part of the closure plan. The closure plan and closure cost estimate have been revised for the above operations.

Table 11.2 Estimated Closure Costs

CATEGORY	DESCRIPTION	COST
Category A:	Hazardous and non-hazardous wastes stored in containers	$ 40,432
Category B	Hazardous and non-hazardous waste stored both in containers and bulk tanks	$37,900
Category C:	Hazardous and non-hazardous wastes stored in containers	$ 11,610
Category D	Equipment/Area Decontamination & Transportation/Disposal of Carbon and Rinse Waters	$ 130,977
Category E	Professional Engineer Certification and Closure Report	$ 2765

CATEGORY	DESCRIPTION	COST
	Total Cost Estimate	**$ 223,684**

On December 6, 2016, the facility submitted to RIDEM OLR&SMM an original insurance certificate issued by Indian Harbor Insurance Company for Closure coverage for the Safety-Kleen located in Cranston. The policy under which the certificate is issued was renewed, effective November 17, 2016 under policy number PEC002530309.

In addition, coverage for closure care was increased for inflation, also effective November 2017, 2018 & 2019. The Implicit Price Deflator was used for the increases was calculated using information obtained from the U.S. Department of Commerce, Bureau of Economic Affairs, Table 1.1.9 Implicit Price Deflators for Gross Domestic Product. Accordingly, the closure cost estimate for the Safety-Kleen System facility is currently **$335,650**.

11.7.2 Category A – Container Storage Areas

a. Quantity Estimates for Category A

This category consists of the following types of hazardous and non-hazardous wastes that are stored in containers.

Item 1: Halogenated Solvents - 7700 Gal.

Item 2: Combustible Liquids - 7,150 Gal.

Item 3: Contact Water - 7,150 Gal.

Item 4: Waste Oil Filters - 27,500 Gal.

b. Cost Breakdown Category A Items

Item 1: Halogenated Solvents (hazardous waste) with low BTU value.
Transportation for off-site fuel blending/incineration as hazardous waste fuel
7700 Gal. (140 x 55 gal. drums) @ $ 1.50/Gal.

Item 2: Combustible Liquids.
Transportation for off-site fuel blending/incineration as hazardous waste fuel

130 x 55 gal. drums or 7,150 Gal. @ $ 0.50/gal.

Item 3: Contact Water (hazardous waste with low BTU value).
Transportation for off-site wastewater treatment
7,150 Gal. (130 x 55 gal drums) @ $ 3.00/gal.

Item 4: Waste Oil Filters.
Transportation for disposal off-site for landfill
27,500 gallons (500 x 55 gal drums) = 136.15 cubic yards = 38.57 tons @ $100/Ton

11.7.3 Category B – Containers and Bulk Tank Storage

a. Quantity Estimates for Category B

This category consists of the following types of hazardous and non-hazardous waste stored both in containers and bulk tanks.

Item 1: 200 x 55 Drums (11,000 Gallons) Flammable Liquids.

Item 2: 25,000 Gallons Flammable/Combustible Bulk Waste.

Item 3: 10,000 Gallons Combustible Liquids Stored in Bulk.

Item 4: 30,000 Gallons Used Oil Stored in Bulk/Trucks.

b. Cost Breakdown of Category B Items

Item 1: Flammable Liquid Containers.
Transportation for off-site fuel blending/incineration as hazardous waste fuel
200 x 55 Gal. Drums = 11,000 Gal. @ $ 1.50/Gal.

Item 2: Flammable/Combustible Liquids Stored in Bulk Tanks.
Transportation for off-site fuel blending/incineration as hazardous waste fuel
25,000 Gal @ $ 0.50/Gal.

Item 3: Combustible Liquids Stored in Bulk (mineral spirits).
Transportation for off-site fuel blending/incineration as hazardous waste fuel
10,000 Gal. @ $ 0.50/Gal.

Item 4: Used Oil Stored in Bulk/Trucks.
Transportation for disposal off-site fuel blending/incineration as used oil fuel
30,000 Gal. @ $ 0.13/Gal.

11.7.4 Category C – Hazardous Waste Container Storage

a. Quantity Estimates for Category C

This category would consist of the following hazardous and non-hazardous wastes in containers.

Item 1: High Solid, High BTU Combustible Solids.
5,500 Gal. (100 x 55 Gal. drums)

Item 2: Non-flammable solids.
5,280 Gal. (96 x 55 Gal. drums)

Item 3: Non-Hazardous & Universal Waste Solids.
120,000 lb. of light fixtures, CRT's, batteries, etc.

Item 4: Non-Hazardous Solid Roll-Offs
3-30 cubic yards roll-offs, 43 cubic yards (mix tub) - 143 cubic yards total)

b. Cost Breakdown of Category C Items

Item 1: High Solid, High BTU Combustible Solids.
5,500 Gal. = 27.23 cubic yards = 15,429 lb. = 7.7 tons @ $100/Ton

Item 2: High Solid, Low BTU Non-Flammable Solids.
5,280 Gal. = 26.14 cubic yards = 14,812 lb. = 7.4 tons @ $100/Ton

Item 3: Non-Hazardous & Universal Waste Solids.
120,000 lb. = 60 tons @ $100/Ton

Item 4: Non-Hazardous Solids in Roll-Offs.
143 Cubic Yards = 81,600 lb. = 41 tons @ $100/Ton

11.7.5 Category D - Decontamination, Sampling, and Waste Removal

The equipment used to store or treat hazardous and non-hazardous waste including mix tub, the oil filter compactor, storage tanks, pipe, pumps, storage (containment areas), staging, and loading/unloading areas will be cleaned and decontaminated. A pressure washer will be used to rinse the interior of the tanks, mix tub and oil filter compactor and their pipes/ancillary equipment. A pressure washer will be used to clean the containment, staging, and loading/unloading areas at the facility.

The activities and costs associated with these procedures are as follows:

Item 1: Confined space entries, power washing, activated carbon removal, collection of rinse waters from tanks/stills/units decontaminated (direct quote).
Cost Estimate - $56,342.26

Item 2: Clean up residues in 13 containment, staging, and loading/unloading areas prior to pressure washing (13 hours labor @ $47.77/hour).
Cost Estimate - $621.01

Item 3: Pressure washing of 13 containment, staging, and loading/unloading areas and collection of rinse waters (49,539 square feet @ $1.00/square foot).
Cost Estimate - $49,539.00

Item 4: Rinsate laboratory analysis
(1 sample from tanks/units, 1 sample from containment, staging, and loading/unloading areas @ $559.22/sample).
Cost Estimate - $1118.44

Item 5: Transportation/disposal of rinsate
(10,772 gallons assumed hazardous @ $1.25/gallon).
Cost Estimate - $13,465.00

Item 6: Collect concrete chip samples in each of thirteen containment areas; samples collected in each area composited for a total of 13 samples (2 hours labor @$26.70/hour).
Cost Estimate - $694.20

Item 7: Analysis of 13 concrete chip samples (13 samples @ $337.68 / sample).
Cost Estimate - $ 4389.84

Item 8: Transportation/disposal of activated carbon air control device (1,000 pounds in 4 units or 2,000 pounds total).
Cost Estimate - $ 3544.53.

Item 9: Transportation/disposal of 3 drums of debris from each containment, staging, and loading/unloading area and waste PPE/equipment used in clean up.
Cost Estimate - $ 1,262.27.

Total Sum Cost: $130,976.55

11.7.6 Category E - Professional Engineer Certification

An independent registered professional engineer will be retained to witness and perform closure inspections of the facility and certify to RI DEM in writing that the facility has been clean closed in accordance with this Closure Plan.

One week of PE time is estimated.
Total Professional Certification Cost: $ 2,764.61

11.7.7 Cost Closure Inflation Factor Adjustments

This facility will adjust the closure cost estimate each calendar year. The adjustment to the closure cost will use the inflation factor derived from the annual implicit price deflator for the gross national product, as published by the U.S. Department of Commerce. The inflation factor is the result of dividing the latest published annual deflator from the previous closure cost estimate by the inflation factor. Subsequent adjustments are made by multiplying the latest inflation factor, or the current known factors, by the previous estimate. The latest cost closure estimate and the previous year estimate will be kept at Safety-Kleen Systems, Inc. during the life of this facility's hazardous waste activities.

11.8 Amendment of Plan

This Closure Plan and closure cost estimate will be amended during the active life of the facility whenever changes in operating conditions, permit modifications, anticipated year of closure, unexpected events occur during partial or final closure activities, or when any of the information in this plan substantially changes. Said amendments must be submitted as part of any permit modification submission, or within 60 days of any changes requiring said amendment but not requiring a permit modification. The amended Closure Plan and closure cost estimate shall be submitted to RIDEM for approval prior to implementation, subject to terms of 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.112(c)).

11.9 Approved Plans and Proposed Permit Modifications Affecting Plan Amendments

There are various activities either ongoing or before the RIDEM as Permit Modifications that upon completion will require closure plan amendments and revised closure cost estimate within the next few months. These are explained below:

11.9.1 Partial Plan for the Distillation Vessel Tanks and Ancillary System

On May 12, 2015, the RIDEM reviewed and approved the Safety-Kleen Partial Closure Plan for the Distillation Vessel Tanks and Ancillary System prepared April 13, 2015.

Pursuant to RIDEM conditions, Safety-Kleen submitted a summary report on November 16, 2016 documenting the completion of the partial closure plan with certification from a Registered Professional Engineer. The facility also submitted a revision to Section 11 noting removal of all references to the distillation vessel tanks and ancillary system and prepare associated cost estimate revisions.

11.9.2 Solidification for Non-Hazardous Wastes

On April 6, 2015, Safety-Kleen submitted a Permit Modification application to the RIDEM to operate a solidification process for non-hazardous wastes in a mix tub container which was approved.

The solidification process is designed to physically treat non-hazardous semi-solids or sludges to increase the solids content to enable the suitability of materials for landfill disposal or landfill daily cover reuse. Waste types intended for acceptance in the solidification operation at the facility specifically include solids saturated with liquid classified as RCRA and RIDEM non-hazardous wastes. Waste materials are subject to verification prior to dumping into the solidification mix tub container in accordance with the facility's Waste Analysis Plan (WAP). Materials from vacuum trucks and/or drums are controlled dumped into a steel hopper referred to as a "mix tub" set upon a concrete secondary containment pad. Solidification bulking agents are added to the semi-solid wastes in the mix tub.

Accordingly, the facility has amended the closure plan and revised the closure cost estimate to include the mix tub container and supporting secondary containment pad.

11.9.3 Rail Service Transfer of Non-Hazardous Specification Used Oil and Bon-Hazardous Liquids

On April 20, 2015, Safety-Kleen submitted a Permit Modification application to the RIDEM to operate a rail transfer operation plan involving the bulk shipment of non-hazardous specification used oil/recycled fuel oil (RFO) by rail. This application was approved. The facility has an existing truck transfer pad which serves for staging tank trucks containing virgin products that are transferred to two (2) vertical product tanks. The containment pad also serves for staging tank truck carrying non-hazardous used oil and non-hazardous liquids when transferring to the rail tank cars. The transfer of specification used oil and non-hazardous liquids by rail utilizes an existing 400-feet of rail spur infrastructure next to the Building L loading dock that was be refurbished with new rail components modified with containment pan upgrades. The plan includes three rail cars that will include containment pan installations fixed to the rail bed under the center portion of the rail tanker. Used oil product and non-hazardous liquids are transferred to the rail cars using a mounted swivel boom loading arm assembly attached to the side of Building. L. The boom loading arm delivery system is an overhead assembly that is piped from the truck transfer pad.

Accordingly, the facility has amended the closure plan and revised the closure cost estimate to include the containment pans, boom arms and truck transfer secondary containment pad associated with the used oil rail transfer operations.

TABLE 11.3 SOURCES FOR CLOSURE COST ESTIMATE QUOTES			
CATEGORY	**ITEM DESCRIPTION**	**TREATMENT/DISPOSAL METHOD**	**SOURCE FOR QUOTE**
Category A			
ITEM 1	HAZARDOUS WASTE FUEL WITH LOW BTUs (HALOGENATED SOLVENTS)	FUEL BLENDING & INCINERATION	BES, LLC
ITEM 2	HAZARDOUS WASTE FUEL WITH HIGH BTUs (COMBUSTIBLE LIQUIDS)	FUEL BLENDING & INCINERATION	BES, LLC
ITEM 3	HAZARDOUS WASTE FUEL WITH LOW BTUs (CONTACT WATER)	WASTEWATER TREATMENT	BES, LLC
ITEM 4	OIL FILTERS	LANDFILL	BES, LLC
Category B			
ITEM 1	HAZARDOUS WASTE FUEL WITH HIGH BTUs (FLAMMABLE LIQUID DRUMS)	FUEL BLENDING & INCINERATION	BES, LLC
ITEM 2	HAZARDOUS WASTE FUEL WITH HIGH BTUs (FLAMMABLE OR COMBUSTIBLE LIQUIDS IN BULK)	FUEL BLENDING & INCINERATION	BES, LLC
ITEM 3	HAZARDOUS WASTE FUEL WITH HIGH BTUs (COMBUSTIBLE LIQUIDS IN BULK)	FUEL BLENDING & INCINERATION	BES, LLC
ITEM 4	OFF-SPECIFICATION USED OIL FUEL	FUEL BLENDING & INCINERATION	BES, LLC
Category C			
ITEM 1	NON-HAZARDOUS SOLID WASTE (HIGH SOLID, HIGH BTU COMBUSTIBLE)	LANDFILL	BES, LLC

TABLE 11.3 SOURCES FOR CLOSURE COST ESTIMATE QUOTES			
CATEGORY	**ITEM DESCRIPTION**	**TREATMENT/DISPOSAL METHOD**	**SOURCE FOR QUOTE**
ITEM 2	NON-HAZARDOUS SOLID WASTE (HIGH SOLID, LOW BTU NON-FLAMMABLE)	LANDFILL	BES, LLC
ITEM 3	NON-HAZARDOUS SOLID WASTE (NON-HAZARDOUS & UNIVERSAL WASTE)	LANDFILL	BES, LLC
ITEM 4	NON-HAZARDOUS SOLID WASTE (ROLL-OFFS)	LANDFILL	BES, LLC
Category D **Equipment/Area Decontamination, Sampling, & Removal of Rinse Waters and Activated Carbon**			
ITEM 1	CONFINED SPACE ENTRIES TO CLEAN, DECONTAMINATE, AND REMOVE RINSATE FROM 14 TANKS/UNITS	NA	BES, LLC
ITEM 2	LABOR TO PERFORM RESIDUE CLEAN UP PRIOR TO PRESSURE WASHING IN CONTAINMENT AREAS	NA	BES, LLC
ITEM 3	PRESSURE WASHING OF CONTAINMENT AREAS	NA	BES, LLC
ITEM 4	RINSATE LABORATORY ANALYSIS	NA	BES, LLC
ITEM 5	RINSATE TRANSPORTATION & DISPOSAL	WASTEWATER TREATMENT	BES, LLC
ITEM 6	LABOR TO COLLECT CONCRETE CHIP SAMPLES	NA	BES, LLC
ITEM 7	CONCRETE CHIP SAMPLE LABORATORY ANALYSIS	NA	BES, LLC
ITEM 8	ACTIVATED CARBON (HAZARDOUS) TRANSPORTATION & DISPOSAL	CHEMICAL OXIDATION	BES, LLC

TABLE 11.3 SOURCES FOR CLOSURE COST ESTIMATE QUOTES			
CATEGORY	**ITEM DESCRIPTION**	**TREATMENT/DISPOSAL METHOD**	**SOURCE FOR QUOTE**
ITEM 9	DEBRIS & PPE/EQUIPMENT (HAZARDOUS) TRANSPORTATION & DISPOSAL	CHEMICAL OXIDATION	BES, LLC
Category E **Professional Engineer Certification**			
CERTIFICATION	ONE WEEK OF PE LABOR	NA	BES, LLC

From: Milmoe, Patrick [PMilmoe@WM.com]
Sent: Tuesday, May 15, 2018 4:12 PM
To: Panetta, Joseph I; Barber, Sabrina
Subject: RE: SK Cranston RI Closure Costs

10-4

Let's go with $75/ton all-in to Turnkey Landfill, 5 ton min per load.

Thank you,
Pat

Patrick Milmoe
Industrial Account Manager
Connecticut & Rhode Island
Pmilmoe@wm.com<mailto:Pmilmoe@wm.com>

Waste Management
26 Patriot Place
Foxboro, MA 02035
Tel 508-962-3671
Fax 866-666-3814

From: Panetta, Joseph I [mailto:panetta.joseph@cleanharbors.com]
Sent: Tuesday, May 15, 2018 5:10 PM
To: Milmoe, Patrick <PMilmoe@WM.com>; Barber, Sabrina <sbarber1@wm.com>
Subject: [EXTERNAL] RE: SK Cranston RI Closure Costs

There are no specifics, this is for a closure plan. Chances are, these items will never ship. We just need to enter 3rd party costs, to meet the state requirements.

Joseph Panetta
Outbound Disposal Coordinator
Clean Harbors Environmental
42 Longwater Drive
Norwell, MA 02061-9149
(781) 792-5712

From: Milmoe, Patrick [mailto:PMilmoe@WM.com]
Sent: Tuesday, May 15, 2018 5:08 PM
To: Panetta, Joseph I <panetta.joseph@cleanharbors.com<mailto:panetta.joseph@cleanharbors.com>>; Barber, Sabrina <sbarber1@wm.com<mailto:sbarber1@wm.com>>

Subject: RE: SK Cranston RI Closure Costs

Hi Joe,

Sorry for delay on this one. What exactly are the non-haz solids and where are the oil filters coming from? What are the contaminants of concern, PCBs, etc?

Thank you,
Pat

Patrick Milmoe
Industrial Account Manager
Connecticut & Rhode Island
Pmilmoe@wm.com<mailto:Pmilmoe@wm.com>

Waste Management
26 Patriot Place
Foxboro, MA 02035
Tel 508-962-3671
Fax 866-666-3814

PRICING INFORMATION ACKNOWLEDGEMENT

CUSTOMER: 101	BILL TO: 410061	PROFILE NO: MN038
CUSTOMER: Clean Harbors of Braintree, Inc. 1 Hill Avenue Braintree, MA 02184 Technical: Adam Holbrook Phone: 781-792-5798 State ID: 9250215071 FED ID: MAD053452637	Bill To: Clean Harbors Env. Services Inc. 42 Longwater Drive P.O Box 02061-9149	PROFILE NO: MN 038 Effective Date: 02/17/2017

TRANSPORTER	TSDF #1	TSDF #2
To be contracted by generator Phone: State ID: Fed ID:	Keystone Cement Co. RT 329 Bath, PA 18014 Contact: Mechella Saba Phone: 610-837-1881 ex 2212 Fed ID: PAD002389559	Contact: Phone :

MATERIAL DESCRIPTION

RQ Waste Flammable Liquids, N.O.S., UN1993, PGII, as corresponds to approved Mod 1 "MN 038"

WASTE FUEL PRICING: CATEGORY I

	CATEGORY II	CATEGORY III
> 9,000 BTU/Lb.	> 8,000 to 9,000 BTU/Lb.	> 6,000 to 8,000 BTU/Lb.
<2.0 % Chlorides	<2.0 % Chlorides	<2.0 % Chlorides
$0.10/Gallon	**$0.15/Gallon**	**$0.30/Gallon**

Categories II & III material need to be called in advance. Minimum 3,000 gallon load charge. $300 rejection fee; $250 fee to pump from top of trailer if required. PA Tax : $1.50/ton

Transportation: Provided by customer

TERMS: See below: **SALES REP**: Pete Kinikles

CONDITIONS: Generator guarantees that the materials shipped will meet our waste fuel specifications and will not contain PCB's, dioxins, cyanides, lachrymates, mercaptans, insecticides, listed pesticides, herbicides, or other toxic, explosive, corrosive, or radioactive materials not identified on the Waste Profile Sheet. In the event that testing costs, damages, fines, or other costs or liabilities are incurred as a result of the generator shipping out-of-specification waste fuel or unacceptable materials, the generator agrees to indemnify and hold harmless the transporter and TSD facility.

The information contained in this document is confidential, and shall not be divulged to persons who are not employees or agents of your company without written permission. A violation of this confidentiality agreement will be considered a material breach of any related contract between the parties and Keystone will pursue all remedies, including those which may be available in law or equity. Acceptance of this offer is limited to its terms and conditions that appear on the reverse side of this document, except to the extent that this agreement may be superseded by a separate written agreement between the parties. Acceptance occurs upon customer scheduling of service with Service Provider.

Generator:_____ By :_____

Title :_____ Date:_____

* All terms and conditions per Master Waste Disposal Agreement

5.18.18

SK Cranston RI Closure Costs

7901 West Morris Street
Indianapolis, IN 46231

Re: Closure Costs

Dear Joseph Panetta

Heritage Environmental Services, LLC (HES) is pleased to provide you with this field quotation estimate for your waste disposal needs. The pricing presented below has been developed using the information provided to HES. Every effort has been made to provide an accurate pricing estimate, however, final pricing can not be provided until waste profiles are approved (this includes all necessary supporting documentation, such as MSDS information, analytical data, or samples (as required).

Waste Disposal Estimate

Waste Stream Description and or Common Name	*Pricing Conditions*	*Price Estimate*	*Container Size*	*Extended Price (if applicable)*	*HES Product Code*
Halogenated Solvents	3-9% Halogens- $219/55g, 10-19% Halogen- $236/55g, 20-69% Halogen- $307/55g	Minimum $ 50	55 gallon drum		68-40
Combustible Liquids	very broad category- best guess (Incineration)	$1.65/lb minimum $183	drums	$2/ton Incineration Tax	8079
Decon Water	> 90 % Pumpable Liquid, No debris, pH between 3 and 10- Indiana disposal tax- $1.30/drum	$143/ 55 gallon min$50	55 gallon drum		53
Flammable Liquids	> 10,000 BTU, >90% Pumpable Liquid, <10% water and <2% TX-$63/55g drum >6,000 BTU, >90% Pumpable Liquid, <40 % water and <3% TX- $132/55g <6,000 BTU, >90% Pumpable Liquid, >40% water and <3% TX- $181/55g	minimum $50	55 gallon drum		68-10/20/30
Used Oil	Used Oil covers oily waste and used oil that meets the definition of used oil as classified under 40 CFR Part 279. Common material in this category are cutting oils, coolants, etc.	$70 minimum $40	55 gallon drum	Indiana dissoal tax is $.64/drum	52
Solids, high BTU combustible	Will be size restrictions (Incineration)	$1.75/lb minimum $183		$2/ton Incineration Tax	8073
Soilids, low BTU, non flammable	Will be size restrictions (Incineration)	$1.75/lb minimum $183		$2/ton Incineration Tax	8073

I look forward to speaking with you in the near future to review this quotation and provide any needed clarification. Heritage appreciates the opportunity to provide this quotation. If you have any questions on this or any other environmental needs, please contact me.

Heritage is pleased to provide you with this acceptability estimate for your waste disposal needs. The pricing and packaging presented above has been developed using the information provided to Heritage. Every effort has been made to provide an accurate pricing estimate and packaging requirements, however, final pricing and packaging cannot be provided until waste profiles are approved (this includes all necessary supporting documentation, such as MSDS information, analytical data, or samples (as required).

Does not include EIS surcharge

Office: 330.386.2193
Fax: 330 386 2167
Email: saward@heritage-thermal.com

Cadence
ENVIRONMENTAL ENERGY, INC
NATIONAL SALES OFFICE
2219 Sawdust Road, Suite 1505 •The Woodlands, TX 77380 • PHONE (936) 242-1008 • FAX (936) 242-1257
www.cadencerecycling.com

November 17, 2017

Mr. Mike Platt
Clean Harbors Environmental Services
72 Longwater Drive
Norwell, MA 02061

Dear Mr. Platt:

In accordance with the Waste Disposal Agreement dated May 1, 2004, please accept this 2018 pricing update to manage the Bulk Liquid Fuels from Clean Harbors Environmental Services. This pricing assumes the fuel meets all Ash Grove Cement specifications.

Disposal Facilities: Ash Grove Cement Company – Foreman, AR and/or Chanute, KS
Invoice Terms: Net 30

Recycling Fee – *Effective 01/01/2018 through 12/31/2018:* *(FOB Ash Grove Cement – Foreman, AR and/or Chanute, KS)*
Values will be determined upon "as-received" fuel samples and analytical performed by Cadence.

Fuel Quality (Btu)	2018 Price Per Ton
11,000 or greater	$ 21.00
10,000 or 10,999	$ 26.00
9,000 to 9,999	$ 31.00
8,000 to 8,999	$ 39.00
7,000 to 7,999	$ 51.00
6,000 to 6,999	$ 76.00
5,000 to 5,999	$ 101.00

The following facilities are covered under this pricing update:

Baltimore, MD	AG1211	Deer Park, TX	AG1659, AG1933
Denton, TX	AG1289, AG1446	Reidsville, NC	AG1676
San Jose, CA	AG1338	El Dorado, AR	AG1700
Braintree, MA	AG1403	Bartow, FL	AG1396
Smithfield, KY	AG1412	Chicago, IL	AG1765
Hebron, OH	AG1436	Kimball, NE	AG1806
Dolton, IL	AG1466	Wilmington, CA	AG1886
Linden, NJ	AG1467	LaPorte, TX	AG1714, AG1881, AG1882

Location: Seattle, WA (formerly Emerald Services) **Approval Code: AG1350**

Fuel Quality (Btu)	2018 Price Per Ton
12,000 or greater	$ 16.00
10,000 to 11,999	$ 22.00
7,000 to 9,999	$ 27.00
6,000 to 6,999	$ 48.00
5,000 to 5,999	$ 67.00
2,500 to 4,999	$ 133.00

Surcharges:

Values will be determined upon "as-received" fuel samples and analytical performed by Cadence. Chlorine above 2.5% requires authorization prior to release. Water ≥ 40% must obtain approval/authorization prior to shipment. Unauthorized shipments may be subject to rejection.

CHLORINE	
Chlorine Value	2018 Surcharge Per Ton
0 - 2.49%	N/A
2.5 - 3.49%	$ 14.00
3.5 - 4.49%	$ 18.00
4.5 - 6.49%	$ 26.00
6.5 - 8.49%	$ 36.00
8.5 - 10.49%	$ 46.00

WATER	
Water Value	2018 Surcharge Per Ton
20.00 - 24.99%	$ 4.00
25.00 - 29.99%	$ 14.00
30.00 - 34.99%	$ 26.00
35.00 - 39.99%	$ 39.00
40.00 - 44.99%	$ 53.00
45.00 - 49.99%	$ 65.00
≥50.0% - Subject to Rejection Pre-Authorizaton Required	
50.00 - 54.99%	$ 79.00
55.00 - 59.99%	$ 91.00
60.00 - 64.99%	$ 104.00
65.00 - 69.99%	$ 118.00

Location: Seattle, WA (formerly Emerald Services) **Approval Code: AG1350**

CHLORINE	
Chlorine Value	2018 Surcharge Per Ton
0 - 2.49%	N/A
2.5 - 3.49%	$ 14.00
3.5 - 4.49%	$ 18.00
4.5 - 6.49%	$ 26.00
6.5 - 8.49%	$ 36.00
8.5 - 10.49%	$ 46.00
>10.50% *Pre Approval Required/Price TBD*	

WATER	
Water Value	2018 Surcharge Per Ton
25.00 - 29.99%	$ 22.00
30.00 - 34.99%	$ 36.00
35.00 - 39.99%	$ 50.00
40.00 - 44.99%	$ 64.00
45.00 - 49.99%	$ 76.00
50.0 - 54.99%	$ 90.00
55.0 - 59.99%	$ 104.00

Taxes:
The Kansas tax for hazardous waste is $2.00 per ton. The tax will appear as a separate line item on the Cadence invoice for shipments to the Chanute, KS facility.

Railcar Cleaning:
Railcar cleaning is not available at the Foreman, AR facility at this time. Railcar cleaning at the Chanute, KS facility, if applicable, will be invoiced according to Attachment I – Railcar Cleaning. A copy is provided for your records.

Truckload Scheduling and Railcar Releases:
Please contact Mr. Jason McMillan at (870) 542-3090 to schedule a truck shipment into the Foreman, AR facility. Please contact Ms. Michelle Huffman at (620) 433-3517 to schedule a truck shipment into the Chanute, KS facility. Please contact Ms. Darlene Kramer at dkramer@cadencerecycling.com or call her at (936) 242-1008 to coordinate railcar shipments to either Ash Grove facility.

Demurrage:
Rail demurrage incurred for shipments to the Chanute, KS facility will be invoiced at sixty dollars ($60) per day, when appropriate/applicable. Cadence Environmental Energy, Inc. assumes no responsibilities for truck transportation demurrage.

Railcar Acceptance Policy:
Railcars shipped to Ash Grove Cement are accepted FOB to the designated kiln. Neither Ash Grove nor Cadence will accept responsibility for repairs or maintenance to a customer's railcar, outside of instances where those repairs are a direct result of handling by Ash Grove Cement personnel. Any other repairs required due to normal wear-and-tear are the responsibility of the railcar owner/lessor. All related charges (including freight and/or fines) will not be assigned to either Ash Grove Cement Company or Cadence Environmental Energy, Inc. Items that are unable to be visually inspected at Ash Grove's plant are the responsibility of Clean Harbors – including deficiencies found by the DOT while in route back to Clean Harbors. All related repair charges, fines and/or freight will be the responsibility of Clean Harbors. You indicate the acceptance of this policy when releasing your railcar to Ash Grove Cement under the approval code established for each facility.

Right of Rejection:

Cadence Environmental Energy, Inc. reserves the right to reject any shipment not meeting Ash Grove specifications.

We appreciate the opportunity to continue our business relationship with Clean Harbors and look forward to future opportunities together. If you have any questions or require any additional information, please do not hesitate to call me at (936) 242-1008.

Regards,

Bernard K. Sabbert

MR. BERNIE SABBERT
National Accounts Manager
Cadence Environmental Energy, Inc.

cc: Chad Carman – Cadence; Kiln Services Manager – Chanute, KS
Jason McMillan – Cadence; Kiln Services Manager – Foreman, AR
Michelle Torres – Cadence; Customer Service Manager/Inside Sales – The Woodlands, TX

Cadence
ENVIRONMENTAL ENERGY, INC
NATIONAL SALES OFFICE
2219 Sawdust Road, Suite 1505 •The Woodlands, TX 77380 • PHONE (936) 242-1008 • FAX (936) 242-1257
www.cadencerecycling.com

RAILCAR CLEANING

SERVICES PERFORMED AT ASH GROVE CEMENT - CHANUTE, KS

RCRA Certified[1] Cleaning: **$1,650 + $350.00 per ton (minimum $2,100)**

[1] *Based on the ability to clean heels using standard procedures. On the rare occasion that due to the nature of the heel, additional handling, equipment, and/or supplies are required and it is necessary to containerize all or part of the heel, that portion removed by this means will be invoiced at $15 per container.*

D.O.T. Certified Cleaning: **$2,650 + RCRA charge(s).**

One-Time Pass: **$2,250**

"One-Time Pass" Service is defined as the non-confined space entry removal of one load (estimated up to 12,000 lbs.) of heel using standard vacuum truck. This service does not guarantee RCRA certified cleaning and serves as the minimum entry fee.

Heel Disposal – All Services:

Heels removed through any cleaning service will be disposed of and invoiced at the current liquids disposal price for the associated waste stream.

Effective: January 1, 2016

SECTION 12.0

FINANCIAL ASSURANCE OF CLOSURE

RCRA PART B PERMIT

VOLUME 1

February 2021

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 12.0 FINANCIAL ASSURANCE OF CLOSURE

Table of Contents

12.0 FINANCIAL ASSURANCE OF CLOSURE

12.1 Financial Assurance Closure Mechanism

250-RICR-140-10-1(1.11) of RI DEM's Hazardous Waste Regulations requires that a financial assurance of closure mechanism be selected and funded in an amount equal to the closure cost estimate. The cost for closing Safety-Kleen System, Inc. existing hazardous waste facility has been estimated at $223,684 in its latest closure cost estimate documented in Section 11.0.

Safety-Kleen System, Inc. has elected to use a Certificate of Insurance from Indian Harbor Insurance Company. A fully executed Insurance Certificate in accordance with Rhode Island Regulations is being provided in the sum of $323,684. This amount includes the Closure Cost Estimate of $223,684 plus $100,000 required by Permit Condition 33 for ten years of groundwater sampling and analysis.

12.2 Current Financial Assurance Insurance Certificate

As required on an annual basis, the required closure for closure care has been increased for inflation factoring the Implicit Price Deflator obtained from the US Department of Commerce, Bureau of Economic Affairs published in Table 1.1.9 – Implicit Price Deflators for Gross Domestic Product.

Accordingly, based on the annual inflation factoring the Implicit Price Deflator referenced below, the current face amount of the closure amount is $ 335,650. The current copy is attached. This is a renewal of the previous certificate that was effective November 17, 2016. The certificate is renewed with an updated amount annually increased for inflation. The most current certificate is also attached.

safety-kleen

PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK

VIA FEDERAL EXPRESS TRK #774334187610

July 22, 2021

Leo Hellested, PE; Chief
Office of Waste Management
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908

RE: Financial Assurance Policy Renewal and Annual Inflation Increase
Safety-Kleen Systems, Inc.
167 Mill Street
Cranston, RI 02905
EPA ID No. RID084802842

Dear Mr. Hellested:

Please find enclosed an original signed Certificate of Insurance for Closure and/or Post Closure Care issued by Great American Insurance Company. This is a policy renewal; the new policy number is CPC E601058 01 and the policy is effective July 31, 2021 through July 31, 2022. Additionally, The Closure Cost Estimate has been increased for annual inflation.

The inflation increase was calculated by multiplying the 2020 cost estimates by the inflation factor 1.012. This inflation factor was calculated by dividing the annual Implicit Price Deflator (IPD) for Gross National Product (GNP) for 2020 (113.586) by the annual IPD for GNP for 2019 (112.227). These IPDs were obtained on April 29, 2021 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 attached.

Closure: $341,692 x 1.012 = $345,792

As a reminder, Safety-Kleen kindly requests the RIDEM's written approval of the Great American Policy No. CPC E601058 00 as an acceptable replacement for Indian Harbor policy PEC002530312. In addition, please advise Indian Harbor Insurance Company on the release of the previous policy by sending your letter of confirmation attention to:

Ms. Mary Ann Susavidge
XL Insurance – Environmental
505 Eagleview Boulevard
Exton, PA 19341
MaryAnn.Susavidge@axaxl.com

Please carbon copy me via email on your correspondence.

safety-kleen.
PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK

If you have any questions regarding this submittal, please feel free to contact me at 219-746-5050 or Harvey.Pamela@cleanharbors.com.

Sincerely,

Pamela K. Harvey, CHMM
Sr. Manager Environmental Compliance

Enclosure

Bureau of Economic Analysis

Table 1.1.9. Implicit Price Deflators for Gross Domestic Product

[Index numbers, 2012=100]

Last Revised on: April 29, 2021 - Next Release Date May 27, 2021

Line		2019	2020
Line			
1	**Gross domestic product**	**112.265**	**113.625**
2	**Personal consumption expenditures**	**109.851**	**111.156**
3	Goods	94.785	94.226
4	Durable goods	86.463	85.801
5	Nondurable goods	99.212	98.735
6	Services	117.744	120.105
7	**Gross private domestic investment**	**108.966**	**110.463**
8	Fixed investment	109.799	111.060
9	Nonresidential	104.256	104.775
10	Structures	118.709	119.970
11	Equipment	97.888	97.674
12	Intellectual property products	103.683	104.673
13	Residential	134.182	138.736
14	Change in private inventories	---	---
15	**Net exports of goods and services**	---	---
16	Exports	98.751	95.951
17	Goods	91.821	87.861
18	Services	114.385	114.284
19	Imports	90.215	88.198
20	Goods	86.393	84.052
21	Services	110.401	110.149
22	**Government consumption expenditures and gross investment**	**113.439**	**114.674**
23	Federal	111.110	111.398
24	National defense	109.256	109.646
25	Nondefense	114.014	114.137
26	State and local	114.969	116.812
	Addendum:		
27	Gross national product	112.227	113.586

GREAT AMERICAN INSURANCE GROUP
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:

ID Number:	RID 084 802 842
Name:	Safety-Kleen Systems, Inc.
Address:	167 Mill Street Cranston, RI 02905
Closure Amount	$345,792
Face Amount:	$345,792
Policy Number:	CPC E601058 01
Effective Date:	July 31, 2021

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure and post-closure care for the facility identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Rhode Island Department of Environmental Management, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

GREAT AMERICAN INSURANCE GROUP
Environmental Division

397 Eagleview Blvd, Suite 100
Exton, PA 19341
888.828.4320 ph

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e) as such regulations were 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)

7/13/2021
(Date)

SEAL:

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Patrick J. Mahoney, Notary Public
Uwchlan Twp., Chester County
My Commission Expires Sept. 27, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

safety-kleen

PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK

VIA FEDERAL EXPRESS TRK #774334187610

July 22, 2021

Leo Hellested, PE; Chief
Office of Waste Management
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908

RE: Financial Assurance Policy Renewal and Annual Inflation Increase
Safety-Kleen Systems, Inc.
167 Mill Street
Cranston, RI 02905
EPA ID No. RID084802842

Dear Mr. Hellested:

Please find enclosed an original signed Certificate of Insurance for Closure and/or Post Closure Care issued by Great American Insurance Company. This is a policy renewal; the new policy number is CPC E601058 0**1** and the policy is effective July 31, 2021 through July 31, 2022. Additionally, The Closure Cost Estimate has been increased for annual inflation.

The inflation increase was calculated by multiplying the 2020 cost estimates by the inflation factor 1.012. This inflation factor was calculated by dividing the annual Implicit Price Deflator (IPD) for Gross National Product (GNP) for 2020 (113.586) by the annual IPD for GNP for 2019 (112.227). These IPDs were obtained on April 29, 2021 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 attached.

Closure: $341,692 x 1.012 = $345,792

As a reminder, Safety-Kleen kindly requests the RIDEM's written approval of the Great American Policy No. CPC E601058 00 as an acceptable replacement for Indian Harbor policy PEC002530312. In addition, please advise Indian Harbor Insurance Company on the release of the previous policy by sending your letter of confirmation attention to:

Ms. Mary Ann Susavidge
XL Insurance – Environmental
505 Eagleview Boulevard
Exton, PA 19341
MaryAnn.Susavidge@axaxl.com

Please carbon copy me via email on your correspondence.

safety-kleen®
PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK®

If you have any questions regarding this submittal, please feel free to contact me at 219-746-5050 or Harvey.Pamela@cleanharbors.com.

Sincerely,

Pamela K. Harvey, CHMM
Sr. Manager Environmental Compliance

Enclosure

Bureau of Economic Analysis

Table 1.1.9. Implicit Price Deflators for Gross Domestic Product

[Index numbers, 2012=100]

Last Revised on: April 29, 2021 - Next Release Date May 27, 2021

Line		2019	2020
Line			
1	**Gross domestic product**	**112.265**	**113.625**
2	**Personal consumption expenditures**	**109.851**	**111.156**
3	Goods	94.785	94.226
4	Durable goods	86.463	85.801
5	Nondurable goods	99.212	98.735
6	Services	117.744	120.105
7	**Gross private domestic investment**	**108.966**	**110.463**
8	Fixed investment	109.799	111.060
9	Nonresidential	104.256	104.775
10	Structures	118.709	119.970
11	Equipment	97.888	97.674
12	Intellectual property products	103.683	104.673
13	Residential	134.182	138.736
14	Change in private inventories	---	---
15	**Net exports of goods and services**	---	---
16	Exports	98.751	95.951
17	Goods	91.821	87.861
18	Services	114.385	114.284
19	Imports	90.215	88.198
20	Goods	86.393	84.052
21	Services	110.401	110.149
22	**Government consumption expenditures and gross investment**	**113.439**	**114.674**
23	Federal	111.110	111.398
24	National defense	109.256	109.646
25	Nondefense	114.014	114.137
26	State and local	114.969	116.812
	Addendum:		
27	Gross national product	112.227	113.586

GREAT AMERICAN INSURANCE GROUP
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:

ID Number:	RID 084 802 842
Name:	Safety-Kleen Systems, Inc.
Address:	167 Mill Street Cranston, RI 02905
Closure Amount	$345,792
Face Amount:	$345,792
Policy Number:	CPC E601058 01
Effective Date:	July 31, 2021

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for closure and post-closure care for the facility identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Rhode Island Department of Environmental Management, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

GREAT AMERICAN INSURANCE GROUP
Environmental Division

397 Eagleview Blvd, Suite 100
Exton, PA 19341
888.828.4320 ph

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 264.151(e) as such regulations were 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)

7/13/2021
(Date)

SEAL:

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Patrick J. Mahoney, Notary Public
Uwchlan Twp., Chester County
My Commission Expires Sept. 27, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

SECTION 13.0

LIABILITY INSURANCE

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 13.0 LIABILITY INSURANCE

Table of Contents

13.0 LIABILITY INSURANCE

13.1 Facility Liability Insurance Coverage Requirement

Safety-Kleen Systems, Inc. carries liability insurance for its Cranston facility as required by 250-RICR-140-10-1 (1.10.2) (which corresponds to 40 CFR 264.147).

13.2 Certificate of Liability Insurance

Safety-Kleen Systems, Inc. has obtained a "Hazardous Waste Facility Certificate of Liability Insurance" with wording equivalent to that specified in 250-RICR-140-10-1 (1.10.2) (which corresponds to 40 CFR 264.151(j)). A copy of the certificate of insurance is enclosed in this section.

safety-kleen

PROTECTION CHOICES PEOPLE
MAKE GREEN WORK

VIA FEDERAL EXPRESS TRK #775065853971

October 29, 2021

Mr. Leo Hellested, P.E., Chief
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908

RE: Hazardous Waste Facility Liability Insurance Renewal
Safety-Kleen Systems, Inc.
167 Mill Street
Cranston, RI 02905
EPA ID # RID084802842

Dear Mr. Hellested:

Please find enclosed is a Hazardous Waste Facility Certificate of Liability Insurance, issued by Great American Insurance Company for the Safety-Kleen facility referenced above. The policy number is PRE E603235 01 and the policy period is November 1, 2021 – November 1, 2022.

If you have any questions regarding this submittal feel free to contact me at 219-746-5050 or Harvey.Pamela@cleanharbors.com.

Sincerely,

Pamela K Harvey

Pamela K. Harvey, CHMM
Sr. Manager Environmental Compliance

Enclosure

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Safety-Kleen Systems, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID# SEE ATTACHED LIST for sudden accidental occurrences. The limits of liability are $1,000,000 each occurrence and $2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 01 issued on November 1, 2021. The effective date of said policy is November 1, 2021.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

   (a) Bankruptcy or insolvency of the Insured shall not relieve the Insurer of its obligations under the Policy.

   (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

   (c) Whenever requested by the Director of the Rhode Island Department of Environmental Management (DEM), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

   (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Director of the Rhode Island DEM.

   (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director of the Rhode Island DEM.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264 151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

Heather Boyd

(Signature of Authorized Representative of Insurer)

Date: 11/1/2021

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 RHODE ISLAND

167 Mill Street
Cranston, RI 02905

safety-kleen

PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK

VIA FEDERAL EXPRESS TRK #775065853971

October 29, 2021

Mr. Leo Hellested, P.E., Chief
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908

RE: **Hazardous Waste Facility Liability Insurance Renewal**
Safety-Kleen Systems, Inc.
167 Mill Street
Cranston, RI 02905
EPA ID # RID084802842

Dear Mr. Hellested:

Please find enclosed is a Hazardous Waste Facility Certificate of Liability Insurance, issued by Great American Insurance Company for the Safety-Kleen facility referenced above. The policy number is PRE E603235 01 and the policy period is November 1, 2021 – November 1, 2022.

If you have any questions regarding this submittal feel free to contact me at 219-746-5050 or Harvey.Pamela@cleanharbors.com.

Sincerely,

Pamela K Harvey

Pamela K. Harvey, CHMM
Sr. Manager Environmental Compliance

Enclosure

HAZARDOUS WASTE FACILITY CERTIFICATE OF LIABILITY INSURANCE

1. Great American Insurance Company, the Insurer, of 301 E 4th St, Cincinnati, OH 45202, hereby certifies that it has issued liability insurance covering bodily injury and property damage to Safety-Kleen Systems, Inc., the Insured, of 42 Longwater Drive, Norwell, MA 02061 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies at EPA ID# SEE ATTACHED LIST for sudden accidental occurrences. The limits of liability are $1,000,000 each occurrence and $2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy number PRE E603235 01 issued on November 1, 2021. The effective date of said policy is November 1, 2021.

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

   (a) Bankruptcy or insolvency of the Insured shall not relieve the Insurer of its obligations under the Policy.

   (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).

   (c) Whenever requested by the Director of the Rhode Island Department of Environmental Management (DEM), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

   (d) Cancellation of the insurance, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Director of the Rhode Island DEM.

   (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director of the Rhode Island DEM.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 264.151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

Heather Boyd

(Signature of Authorized Representative of Insurer)

Date: 11/1/2021

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 RHODE ISLAND

167 Mill Street
Cranston, RI 02905

SECTION 14.0

GROUNDWATER MONITORING PROGRAM PLAN

RCRA PART B PERMIT

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 14.0 GROUNDWATER MONITORING PROGRAM PLAN

Table of Contents

14.0 GROUNDWATER MONITORING PROGRAM PLAN

14.1 General Requirements

RIDEM's Office of Waste Management (OLR&SMM) Rules and Regulations for Hazardous Waste Management require the submission of a groundwater monitoring plan which supplies applicable information required by 250-RICR-140-10-1(1.10.2) (which corresponds to 40 CFR 264.90-100), unless this requirement is waived. All waste handling, loading/unloading and storage activities at Safety-Kleen Systems, Inc. are conducted inside contained facility buildings. Waste storage is in tanks or containers located inside the facility building within secondary containment structures. It is extremely unlikely that hazardous constituents, even if spilled, would reach soil or groundwater. Regardless of these safeguards, Safety-Kleen Systems, Inc. has installed and monitors six wells at the facility and has implemented a quarterly groundwater monitoring program. The results of groundwater monitoring conducted at Safety-Kleen Systems, Inc. are currently subject to quarterly reports submitted to the RIDEM.

At the request of RIDEM, Safety-Kleen Systems, Inc., will continue to sample and analyze groundwater samples as described in Section 14.0 in accordance with Section 24 of the RCRA Part B Permit for the site.

14.2 Site Hydrogeology and Groundwater Characteristics

14.2.1 Hydrogeologic Characteristics

Safety-Kleen Systems, Inc. is situated in the Seaboard Lowland of the New England Physiographic Province, on the southern part of the Providence Outwash Plain. The site is located along the northern bank of the Pawtuxet River, on land within the Pawtuxet River Watershed. The Pawtuxet River passes within 75 feet of the site, and forms the boundary between the Province Outwash Plain to the north, and Warwick Outwash Plain to the south. Topographic relief is generally level sloping gently to the southeast, toward the Pawtuxet River. Portions of the site are located within the 100

year floodplain of the Pawtuxet River.

One thousand feet to the north, a small brook originates at the southern end of the Bellefont Pond. The brook drains through a culvert through much of its length, passes west of the site, and turns sharply east toward the Safety-Kleen Systems, Inc., Inc. facility. The brook passes within 25 feet of the site before discharging to the Pawtuxet River.

Test wells were installed near the site in the 1950's by the USGS as part of a groundwater resource evaluation. One well (Well No. 222) was placed 50 feet south of the facility near the Pawtuxet River, and excavated to a depth of 56 feet below grade; bedrock was not encountered. Overburden sediments consisted of non-homogeneous glacio-fluvial outwash, and fluvial floodplain deposits. From grade, the first eight feet consists of sand and broken stone fill. Beneath the fill, overburden is predominantly fine to medium sand, inter-bedded with varying thickness of silt, clay, and gravel. Based on Geologic maps, bedrock beneath the site is a member of the Rhode Island Formation, and composed of conglomerates, sandstones, slates, and shale.

14.2.2 Groundwater Quality and Flow Direction

The Rhode Island Department of Environmental Management's Office of Water Resources has classified groundwater throughout the area as "GB". This designation indicates groundwater is not suitable for drinking water without treatment.

At the abutting Ciba-Geigy facility, Woodward-Clyde reported bedrock at 52 to 56 feet below grade. Overburden sediments were grouped into three classes: silty sand; clayey silt - silty clay; and till mantle above bedrock. The hydraulic yield of upper glaciol-fluvial sediments was reported between 75 and 1,600 gallons per minute. The hydraulic gradient across the Ciba-Geigy facility ranges from 0.5 to 1.5 feet per 100 feet. Groundwater flow was reported in a southeasterly direction, and estimated to be between 2 and 200 feet per year.

14.3 Monitoring Well Locations, Installation and Construction

The Safety-Kleen Systems, Inc. RCRA Part B Permit driven groundwater monitoring network and historical data consist of LFR-1RE (which is a replacement well for LFR-1, LFR-2, LFR-3, LFR-4RE (which is a replacement well for MW-2/LFR-4), MW-1, and MW-3RE (which is a replacement well for MW-3). In addition to these six wells, MW-G and MW-H are also monitored per request of RIDEM's OLR&SMM Site Remediation Program. The locations of these wells are intended to provide representative samples of the groundwater underlying the Safety-Kleen Systems, Inc. facility.

Monitoring wells MW-1 through MW-3 were installed at the facility in 1993. The soil boring and well installation logs indicate they were installed and maintained in a manner that meets or exceeds the standards of 250-RICR-140-10-1(1.710.2) (which corresponds to 40 CFR 264.97(c)). Each well contains a 10-foot length of 2" diameter 0.010" slotted screen straddling the groundwater table. Solid 2" diameter PVC pipe extends from the top of the screened interval to the ground surface. The annular space between the bore hole and screen is packed with sand. The annular space above the screen is sealed with bentonite clay to prevent contamination from entering the well. The surface of each well is protected by a flush mounted steel road box.

On December 15, 1999, United Oil Recovery, Inc., Inc. (UOR) entered into an agreement with EPA-NE to perform Correction Action on a self-directed basis. This agreement required UOR to install additional ground water monitoring wells and report to EPA the results of the ground water findings. Accordingly, four additional wells (LFR-1 through LFR-4) were installed in May, 2001 down-gradient of Building C and Building A on the southern boundary of the site. Each of these wells were installed in a similar manner to the wells installed in 1993 and completed with a stick-up protective well casing secured with a padlock.

The locations of these wells are shown on Figure 14.1 and are described below:

- MW-1 is located to the west of the Safety-Kleen Systems, Inc., Inc. facility. MW-1 serves as a down-gradient/cross gradient groundwater monitoring well.

- MW-2 located in the southwest portion of the Safety-Kleen Systems, Inc., Inc. facility Building C is closed and was replaced with MW-LFR-4RE as described below.
- MW-3RE is located to the north of the Safety-Kleen Systems, Inc., Inc. facility. MW-3RE replaced MW-3, which was decommissioned and moved slightly upgradient of the original location in November 2016 during facility construction activities. MW-3RE serves as the up-gradient groundwater monitoring well location.
-
- LFR-1 (replaced with LFR-1RE on May 18, 2005. LFR-1 had infiltrated with bentonite clay and/or soil and could not be sampled) serves as a down-gradient well on the south east corner of building A.
- LFR-2 serves as a down-gradient well on the southern side of Building A.
- LFR-3 serves as a down-gradient well on the southeast side of Building C.
- LFR-4REserves as a down-gradient well on the south-west side of Building C. LFR-4 replaced monitoring well MW-2 as referenced above, but was damaged by a flood event that occurred in 2010. LFR-4 was subsequently replaced with LFR-4RE on December 17, 2013 in the vicinity of the former LFR-4.

14.4 Sample and Analysis Plan

The groundwater monitoring wells at Safety-Kleen Systems, Inc. will be sampled quarterly. Prior to each sampling event, the road box/riser will be inspected visually for damage. This inspection will include checking for cracks or breaks in the well casing as well as the existence of water outside of the well casing. Ground water samples will be collected in accordance with the U.S. Environmental Protection Agency's Region 1 "Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (January 2010)". The indicator field parameters of pH,

dissolved oxygen (DO), specific conductance, oxidation reduction potential (ORP), turbidity and temperature will be monitored during well purging. The samples will be collected using a peristaltic pump and well dedicated disposable plastic tubing. Samples will be collected in laboratory cleaned and preserved sample jars, chilled to 4°C and delivered under chain of custody protocol to a certified testing laboratory for analysis.

A trip blank sample will be used to document quality control procedures. The trip blank consisting of sample containers filled with distilled water, will accompany sample containers to and from the field. These samples will be used to detect any contamination or cross-contamination during handling and transportation.

Samples will be placed in appropriate containers and preserved as indicated below and placed in a refrigerator or on ice. The samples will be transferred to a certified laboratory using chain-of-custody procedures. Samples will be refrigerated in the laboratory until analyzed.

14.5 Data Analysis and Reporting

Groundwater monitoring data will be examined for increasing contaminant trends. If an increase of 50 ppb or greater (over the average of previous levels) of one or more volatile organic compound (VOC) occurs in the monitoring well analytical testing results, Safety-Kleen Systems, Inc., Inc. will immediately initiate an investigation of the various areas that may have caused the change. The investigation will include an examination of the area around and up-gradient of the well to determine if any spills or releases have occurred. Personnel at the facility will be questioned concerning unreported spills. All potential sources of undetected leaks will be checked. Re-sampling and testing of the monitoring wells will be completed at 90 day intervals to determine if the increasing trend is continuing. The above investigations will be continued until the source of the contamination is located and/or until the testing of the groundwater indicates lower contaminant levels.

Safety-Kleen Systems, Inc. will prepare a written report summarizing the analytical data. The report along with laboratory certificates will be submitted to the RIDEM quarterly, and within six weeks of the date the samples are collected, allowing for lab turn around and preparation of the written report. The report will contain comparisons to historical data as well as a comparison to background levels and expected norms for groundwater in the area.

TABLE OF CONTAINERS, PRESERVATIVES, HOLD TIMES AND ANALYTICAL PROCEDURES

PARAMETER	MATRIX	SAMPLE VOLUME	CONTAINER TYPE	PRESERVATION TECHNIQUE	HOLD TIME	ANALYSIS METHOD
Volatiles	Groundwater	40 ml	Glass Vial	Cool to 4°C	14 Days	EPA Method 8260B or C
Total Petroleum Hydrocarbons	Groundwater	1000 ml	Glass Bottle	Cool to 4°C	28 Days	EPA Method 1664 Rev. A SGT/HEM
pH	Groundwater	Field Determination	NA	NA	NA	Field Instrumentation
Dissolved Oxygen	Groundwater	Field Determination	NA	NA	NA	Field Instrumentation
Conductance	Groundwater	Field Determination	NA	NA	NA	Field Instrumentation
Oxidation Reduction Potential	Groundwater	Field Determination	NA	NA	NA	Field Instrumentation
Temperature	Groundwater	Field Determination	NA	NA	NA	Thermometer
Turbidity	Groundwater	Field Determination	NA	NA	NA	Field Instrumentation

safety-kleen. FIFTY YEARS
PROTECTION·CHOICES·PEOPLE
MAKE GREEN WORK 1963 2013

SAFETY-KLEEN SYSTEMS, INC.

RCRA PART B PERMIT RENEWAL APPLICATION

PERMIT # RID084802842

VOLUME 1

JUNE 2022

SAFETY-KLEEN SYSTEMS, INC.
167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
F (401) 781-7593
www.safety-kleen.com

"People and Technology Creating a Better Environment"

SECTION 1.0 – Introduction

SECTION 2.0 – Description of Wastes Accepted

SECTION 3.0 – Facility Process Description Plan

SECTION 4.0 – Environmental Safeguards Plan

SECTION 5.0 – Waste Analysis Plan

SECTION 6.0 – Site Security Plan

SECTION 7.0 – General Inspection Schedule Plan

SECTION 8.0 – Recordkeeping and Reporting Plan

SECTION 9.0 – Contingency, Preparedness and Prevention Plan

SECTION 10.0 – Personnel Training Program Plan

SECTION 11.0 – Hazardous Waste Closure and Closure Cost Estimate

SECTION 12.0 – Financial Assurance of Closure

SECTION 13.0 – Liability Insurance

SECTION 14.0 – Groundwater Monitoring Program Plan

SECTION 15.0 – Facility Site Engineering Drawings

SECTION 15.0

FACILITY SITE ENGINEERING DRAWINGS

RCRA PART B PERMIT

VOLUME 1

May 2022

SAFETY-KLEEN SYSTEMS, INC.
PERMIT # RID084802842

167 MILL STREET
CRANSTON, RHODE ISLAND 02905-1049 USA
T (401) 781-0808
www.safety-kleen.com

SECTION 15.0 FACILITY SITE ENGINEERING DRAWINGS

Table of Contents

Drawings:

Plans:

Plan 11, Rev. B
Plan 12, Rev. B
Plan 13, Rev. B
Plan 14, Rev. D
Plan 15, Rev. C
Plan GW-1, Rev. F

Figures:
Figure 1, Rev. B
Figure 2, Rev. B
Figure 2.5, Rev. B
Figure 3, Rev. B
Figure 4.1
Figure 9.5, Rev. B
Figure 9.6, Rev. B
Figure 14.1, Rev F