

May 25, 2011

Hand Delivered

Mr. Merlin Russell Jr. Professional Geologist II Hazardous Waste Permitting Florida Department of Environmental Protection P.O. Box 3070 Tallahassee, FL 32399

Safety-Kleen Systems, Inc. Tampa Facility – 5309 24th Avenue South, Tampa FL, 33619; EPA ID# FLD 980 847 271; Hazardous Waste Operating Permit **Renewal Application** 

Dear Mr. Russell:

Safety-Kleen Systems, Inc. is submitting the enclosed copy of the above-referenced Operating Permit Renewal application. Also enclosed is the \$10,000 application fee. I am also sending a copy to the FDEP Southwest District.

If you have any questions or comments, please contact me at 561-738-3026, or 561-523-4719.

Best regards,

**Jeff Curtis** 

EHS Manager

Safety-Kleen Systems, Inc.

5610 Alpha Drive

Boynton Beach, FL 33426

CHECK NO: 10854182

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Safety-Kleen Systems, Inc.

5360 Legacy Drive Building 2, Suite 100 Plano, TX 75024

Chicago, Illinois

JP Morgan Chase Bank N.A.

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### RCRA OPERATING PERMIT RENEWAL APPLICATION

Safety-Kleen Systems, Inc. Tampa Branch Service Center 5309 24th Avenue South Tampa, Florida

May 2011

Prepared for:

Safety-Kleen Systems, Inc. 5360 Legacy Drive Building 2, Suite 100 Plano, Texas 75024

Revision	on N	umber	0
Date		05/27	/11
Page	1	of	4

### APPLICATION FOR A HAZARDOUS WASTE PERMIT PART I – GENERAL TO BE COMPLETED BY ALL APPLICANTS

Please Type or Print

A.	General Information
1.	Type of Facility in accordance with Part 270.13(a)  DISPOSAL  Landfill Land Treatment Surface Impoundment  Miscellaneous Units Type of Unit  STORAGE  Containers Tanks Piles  Surface Impoundment Containment Building  Miscellaneous Unit Type of Unit  TREATMENT  Tanks Piles Surface Impoundment  Incineration Containment Building  Boiler / Industrial Furnace Type of Unit  Miscellaneous Unit Type of Unit  Miscellaneous Unit Type of Unit
2.	Type of application:  Temporary Operation Permit (TOP)  Construction Permit  Operation Permit  Construction & Operation Permit  Research, Development & Demonstration (RD&D) Permit  Postclosure Permit  Clean Closure Plan  Subpart H Remedial Action Plan  Equivalency Demonstration
3.	Revision Number:0
4.	Date current operation began, or is expected to begin: 06 / 28 / 1985
5.	Facility NameSafety-Kleen Systems, Inc.
6.	EPA/DEP I.D. No. FLD980847271

Revision	า Nu	mber	0
Date		05/27/	11
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7.	Facility location or stree	t address 5309 24th Ave	e. South, Tamp	a, FL 33619	)
8.	Facility mailing address	5309 24th Ave. South			
		Tampa	street or P.O. Bo	ЭX	33619
9.	Contact person Jeff Cu	city	state Telepl	hone (561	zip )738-3026
	Title EHS Manager				
	Mailing address	5610 Alpha Drive			
	Walling address	Boynton Beach	street or P.O. B	эx	33426
		city	state		zip
	E-mail address	jeff.curtis@safety-kleen.	com		
10.	Operator's name Safety	/-Kleen Systems, Inc.	Telep	hone <u>(</u> 972	)265-2000
	Mailing address	5360 Legacy Drive, Build			
		Plano	street or P.O. Bo	эx	75024
11.	Facility owner's name	city Safety-Kleen Systems, Ind	state c. Telep	hone ( <u>9</u> 72	zip )265-2000
	Mailing address	5360 Legacy Drive, Build		00	
	Mailing address	Plano	street or P.O. B		75024
		city	state		zip
12.	Legal structure		Davida a cal	🗆	dividual
	<b>=</b> ·	Non-profit corporation	Partnersh	ııp ın₁ I governme	
	Local government	State government			
13.	If an individual, partners the county and state wh			assumed i	name, specify
	County N/A	State	N/A		
14.	If the legal structure is a	corporation, indicate th	e state of inco	rporation.	
	State of incorporation V	Visconsin			
15.	If the legal structure is a	n individual or partnersh	nip, list the ow	ners.	
	Name N/A				
	Address N/A				
	Street or	P.O. Box	city	state	zip
	Name N/A				
	Address N/A				
	Street or	P.O. Box	city	state	zip

Revisio	n Nu	mber	0
Date		05/27	/11
Page	3	of	4

16.	Owne	rship status  d					:
	If leased, i	ndicate land owner's	name				
	Address _	Street or P.O. Box		city	, sta	to	zip
17.	Name of e	Robert W. F	Fox	F	Registration No.	40980	
	_	5909 Hampton Oaks	D. J O	D	Tampa FL	336	
	Associated	Environmenta	d Resources <b>M</b> a	city anage		te	zip
10		ity located on Indian	land?	/es []	✓ No		
18.					_	· · · · · · · · · · · · · · · · · · ·	
19.	Existing or	pending environme					
NAME	OF PERMIT	AGENCY	PERMIT NUMB	ER	DATE ISSUED	EXPI	RATION DATE
See	Attached						
			-				
В.	Site Inforr	mation					
1,	The facility	is located inH	illsborough	_Cou	nty.		
		st community to the			Tampa		
	Latitude _	27 55' 21"	N			23' 04"	W
	Method an	d datum GPS					
2.	The area o	of the facility site is _	3	_acre	es.		
3,	present, ar	cale drawing and phond future treatment, strict fire from the fire from	storage and dis	posal	areas. Also sho	ocation of ow the ha	i all past, zardous

### PART I

### A. GENERAL INFORMATION

19. Existing or pending environmental permits.

Name of Permit	Agency	Permit Number	Date Issued	<b>Expiration Date</b>
HW Operating Permit	FDEP	34744-HO-005	07/03/07	11/23/11
Used Oil Transfer Facility/Transporter	FDEP	FLD980847271	07/01/07	06/30/11
Stormwater	FDEP	FLRNEE067	07/01/07	06/30/12
Transport/Storage Facility for Mercury- Containing Lamps	FDEP	FLD980847271	03/01/11	03/01/12

### Part I B. Site Information

### 3. FACILITY LAYOUT AND TRAFFIC PATTERNS

The facility layout is shown in Figure 2.1-1. Site traffic patterns are illustrated in Figure 2.1-2. Site photographs are provided in Appendix A. Approximately 14 trucks will leave and return to the site daily. One semi-tractor truck transports waste to a Safety-Kleen recycle center weekly. The vehicles enter and exit through the mechanically operated gate at the Northeast corner of the facility, which opens onto 24th Avenue. Two additional manually operated gates are located at the center of the north fence line and the Southeast corner, providing access to 24th Avenue and 54th Street, respectively.

Fresh parts washer solvent is delivered to the Branch in tanker trucks. Fresh parts washer solvent may also be delivered to the Branch in containers. The unloading and loading of the fresh parts washer solvent and spent parts washer solvent from the tanker trucks occurs at Area C, as shown in Figure 2.1-2. The spent parts washer solvent arrives from customers in containers, and the containers are poured into the dumpsters in the return/fill station between the two buildings (Area A). The spent solvent is pumped from the dumpsters to the waste tank. A tanker truck removes the waste on a periodic basis and transports it to a Safety-Kleen recycle center.

Immersion cleaner, paint wastes, spent solvent, petroleum naptha and perchloroethylene dry cleaning wastes are permitted wastes at the Tampa facility. These wastes are picked up from customers and off-loaded from route trucks at the south docks or the return/fill station. From there, they are placed in the appropriate container storage area in the south building (non-flammable or flammable storage area). On a regular basis, the containerized wastes are shipped to a Safety-Kleen recycle center.

Fluid Recovery Services (FRS) wastes are transfer wastes and can be stored up to a maximum of ten days on site. These wastes are transferred and stored in containers in the flammable or non-flammable storage areas of the South building. Safety-Kleen selects the

storage area to be utilized for these wastes based upon their compatibility with other transfer wastes present, as well as the specific DOT hazard associated with the material.

Used oil and antifreeze is picked up from customer locations and transported by Safety-Kleen oil trucks to the branch on a daily basis and stored in an above ground storage tank in the tank farm (Area C). A tanker truck transports used oil from the branch to the Tampa Transflo terminal (BIDS) 504B N. 34<sup>th</sup> St., Tampa, FL (EPA ID FLR000105338) on an as need basis. However, in some instances, Safety-Kleen oil trucks may off-load directly at the BIDS terminal.

Numeric values with respect to load bearing capacity of the roads leading to the facility are not available. However, the roads have been constructed as "local roads." According to the Florida Department of Transportation (FDOT), this indicates that there are no bridges and no restrictions. Trucks must fall under Florida's legal limits on loads. The facility and adjacent facilities have been in operation since at least 1985. The roads have been able to sustain the loads being transported over them.

### Part I

- B. Site Information
- 4. SITE TOPOGRAPHY AND SURROUNDING LAND USE

Figure 2.2-1 is a USGS topographic map showing the facility. Due to the small size of the site, all of the information requested in FDEP's application form cannot be placed on one map. Therefore, additional maps are provided here to present the additional information requested in the application form. Specific information requested in the permit application is provided below.

### 100-Year Floodplain Area

Based on information available (Figure 2.2-2), the facility does not lie within the 100-year floodplain. The site is located in a Zone B, which is an area lying between the limits of a 100-year flood and 500-year flood; or an area subject to 100-year flooding with an average depth of less than one foot or where the contributing drainage is less than one square mile; or an area protected by levees from the base flood. Therefore, the site does not require any special flood management procedures.

### Surface Water Bodies Within One-Quarter Mile of the Facility Property Boundary (e.g., Intermittent Streams and Springs)

With the exception of the onsite retention pond, there are no surface water bodies within a one-quarter-mile radius of the facility, as shown in Figure 2.2-1.

### Surrounding Land Uses

Surrounding land uses are shown in Figure 2.2-3.

### Legal Boundaries of the Facility

Figure 2.2-4 shows the property boundaries.

### Drinking Water Wells Listed in Public Records or Otherwise Know to the Applicant Within One-Quarter Mile of the Facility Property Boundary

Results of a well survey (wells within one-quarter mile of the site) are presented in Tables 2.2-1 and 2.2-2.

### Intake and Discharge Structures Within One Mile

There are no known intake or discharge structures within one mile.

### Run-Off Control System

The facility's paved areas are sloped such that most rainwater run-off will be directed to the ditch on the southern part of the site, which is connected to a retention pond. Any rainwater falling on the extreme north end of the property will be directed north to a drainage ditch that runs parallel to 24<sup>th</sup> Avenue South. The retention pond and southern drainage ditch direct storm water to the east where the system connects with a drainage ditch that runs parallel to 54<sup>th</sup> Street. Figure 2.2-4 illustrates the contours and anticipated surface water run-off direction.

### Access Control (fences, gates, etc.)

Figure 2.1-1 shows access control features.

### Injection and Withdrawal Wells Both On Site and Off Site

There are no injection or withdrawal wells on site. Results of an inventory of wells within one-quarter mile of the site are presented in Tables 2.2-1 and 2.2-2.

### **Buildings and Other Structures**

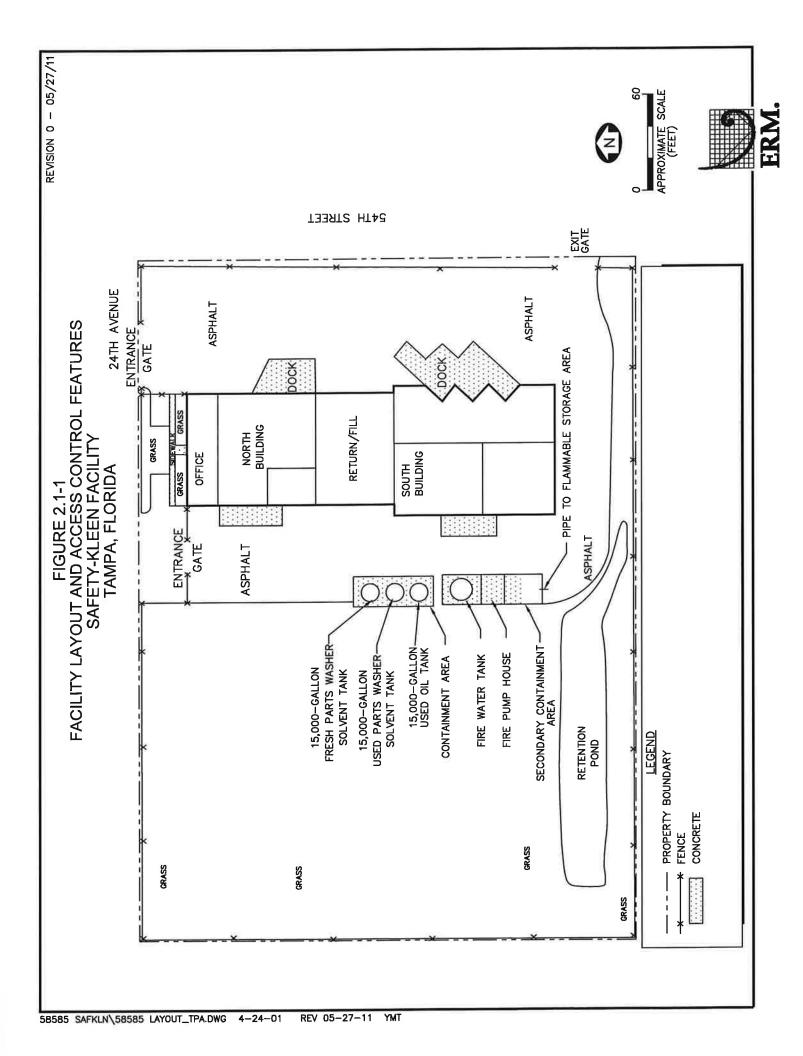
Buildings and other structures are shown in Figure 2.1-1.

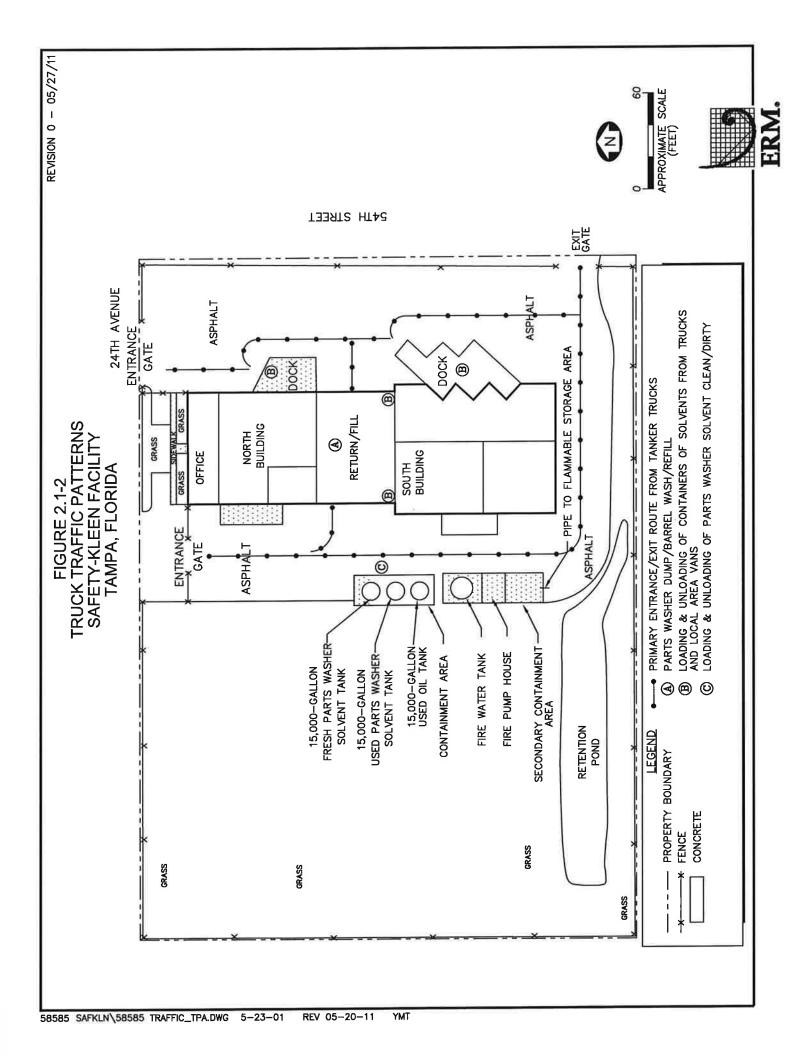
### Contours Sufficient to Show Surface Water Flow

Figure 2.2-4 shows surface elevations at the facility. Anticipated surface water flow directions are shown in Figure 2.2-4.

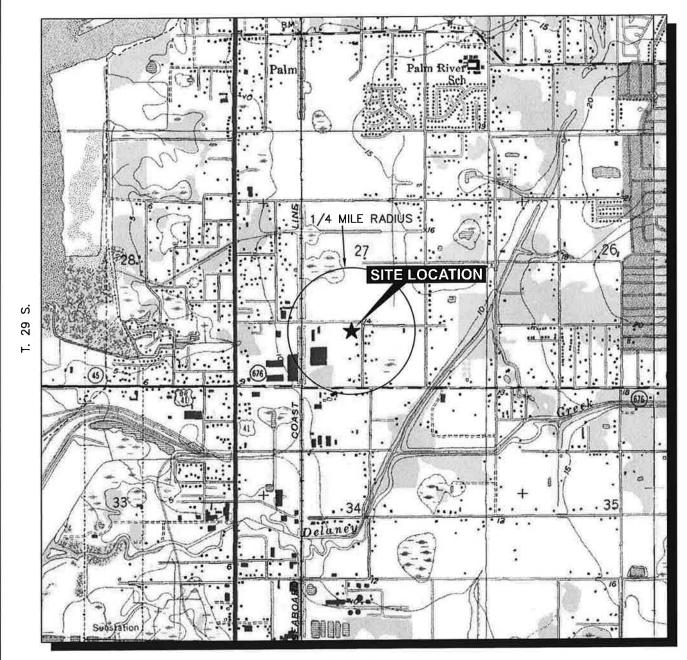
### Loading and Unloading Areas

Figure 2.1-2 shows loading and unloading areas in relation to the waste management areas. Additional details regarding traffic patterns are provided in Section 2.1.





### FIGURE 2.2-1 TOPOGRAPHIC MAP SAFETY-KLEEN FACILITY TAMPA, FLORIDA



R. 19 E.



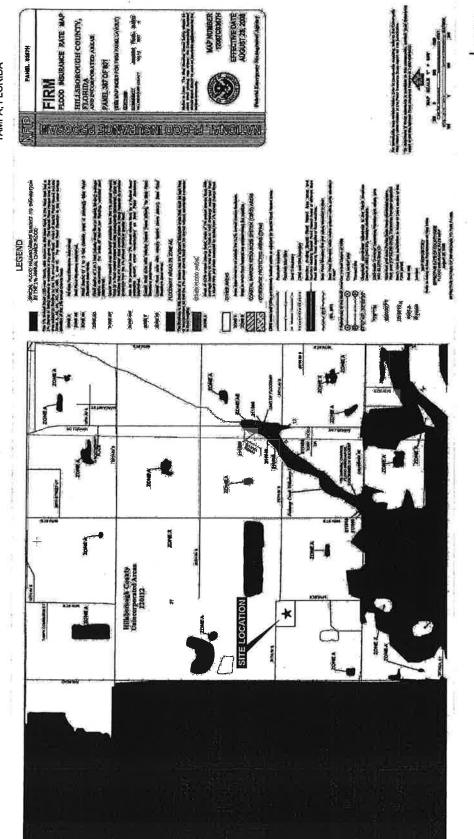
QUADRANGLE LOCATION

0 2,000
APPROXIMATE SCALE
(FEET)

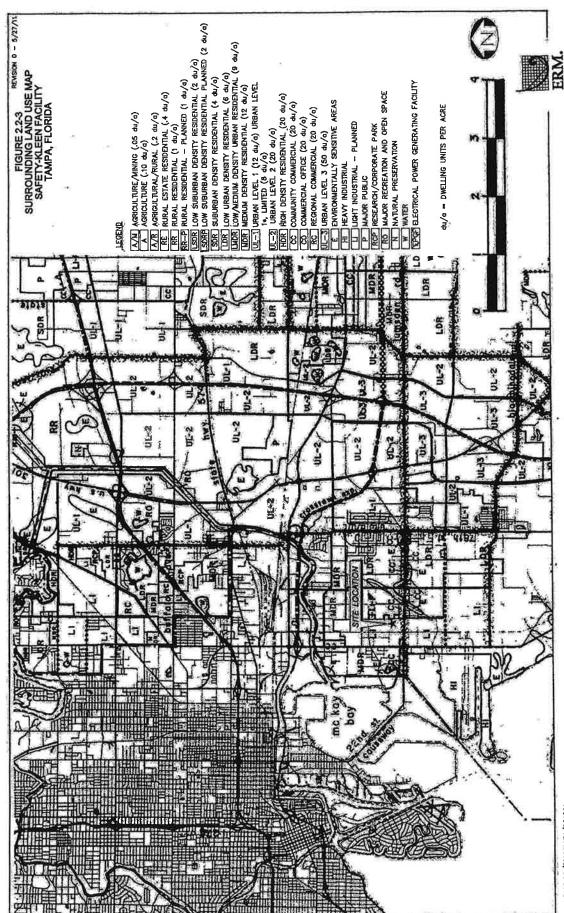


Source: USGS Quadrangle Map of Tampa, FL., Rev. 1981.

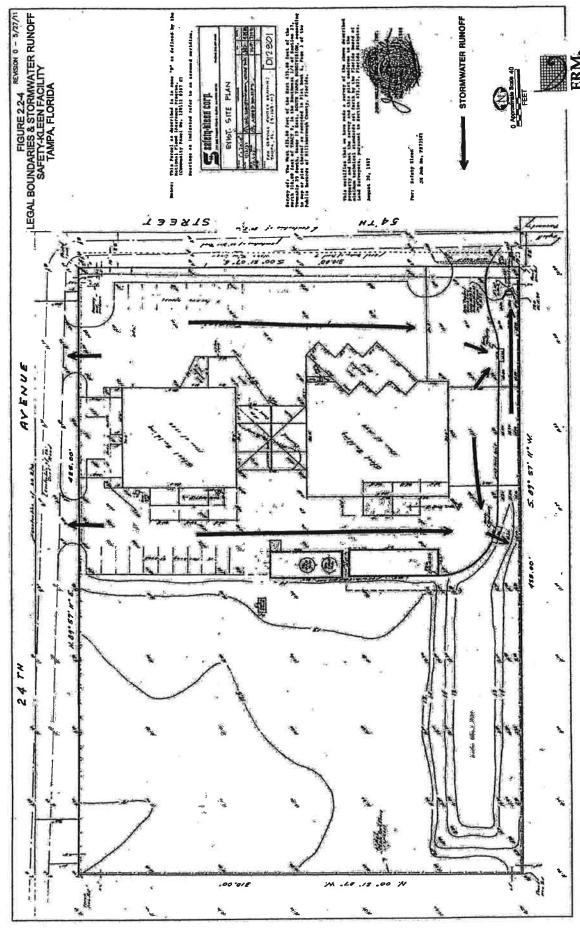
FIGURE 2.2-2 REMSON 0 - 5/27/11
FLOOD INSURANCE MAP
SAFETY-KLEEN FACILITY
TAMPA, FLORIDA







13112.09/31109LUM/021291



13112.09/31109LB/021291

**TABLE 2.2-1** 

# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT CONSUMPTIVE USE PERMITS

Loca	Location				Well		
Latitude	Longitude	Owner Name	Well Type	wen Depun (Feet)	(Inches)	Well No.	Permit No.
275554	822323	Aoki Plant Nursery	Irrigation	250	9	WD #1	08166-00
275554	822323	Aoki Plant Nursery	Irrigation	100	9	WD #2	08166-00

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
272919	R. Rodriguez	Irrigation	135	4	46	308682
272919	General Telephone	Irrigation	100	4	37	434162
272919	GTE Mobilnet	Irrigation	170	4	89	488390
272919	G.L. Anderson	Irrigation	140	4	90	494100
272919	Aoki Plant Nursery	Irrigation	200	9	63	414498
272919	Aoki Plant Nursery	Irrigation	235	9	139	422106
272919	Shop & Go	Public Supply	75	က	45	315978
272919	O. Mills	Public Supply	06	က	62	333207
272919	Richards Fuel	Public Supply	123	4	63	376079
272919	Key Construction	Public Supply	139	4	85	383081
272919	Joel & Mary Maggi	Public Supply	100	4	9	408551
272919	Causeway Med Clinic	Public Supply	92	4	38	425788
272919	Sunbelt Refrigeration	Public Supply	AN	4	Ą	430518
272919	John Jacobson	Public Supply	120	4	9	472119
272919	Safety-Kleen	Public Supply	121	5	81	407715
272919	John Manfhin	Domestic	85	ΥN	42	349653
272919	Dusty Lillard	Domestic	172	2	111	349408
272919	Tom Goldtrap	Domestic	212	2	155	352823
272919	Esteban Perez	Domestic	67	2	34	379322

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
272919	Hernando Pellicer	Domestic	80	2	65	381011
272919	Beverly Johnson	Domestic	40	2	40	422333
272919	Nick Capitano	Domestic	92	ю	51	304993
272919	Ruth Kelley	Domestic	61	က	28	305608
272919	A. Paiz	Domestic	63	က	42	306444
272919	J.M. Martine	Domestic	06	ю	42	306445
272919	G. Tew	Domestic	85	က	42	306959
272919	P.W. Kenney	Domestic	80	က	62	307235
272919	G.G. Moroles	Domestic	Ą	Ą	ĄZ	308335
272919	A.D. Smith	Domestic	20	က	40	308501
272919	T.R. Hunzike	Domestic	65	ဗ	30	310652
272919	S.L. Whitt	Domestic	65	8	31	310824
272919	Carl Sumner	Domestic	115	3	42	312912
272919	A. Losa	Domestic	70	3	37	316464
272919	J. Serrallas	Domestic	70	3	46	316465
272919	J.A. Hauser	Domestic	80	ဗ	42	318570
272919	R. Alvarez	Domestic	64	ဗ	38	322909
272919	Sears	Domestic	83	3	62	328299
272919	G. Lillard	Domestic	70	က	53	337189
272919	J.E. Murray	Domestic	120	ď	42	337799

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
272919	A. Mulion	Domestic	NA	က	NA	341884
272919	Fred Wright	Domlestic	9/		45	347993
272919	Ulysses Perez	Domestic	57	3	42	373042
272919	Lester Scott	Domestic	09	4	49	304873
272919	W.P. Cummins	Domestic	91	4	51	313556
272919	H. Pate	Domestic	82	4	61	319713
272919	L. Segueira	Domestic	09	4	45	330077
272919	A. Perez	Domestic	25	4	31	339352
272919	Mary J. Capaz	Domestic	06	4	52	351808
272919	Shawver Const.	Domestic	114	4	NA	352239
272919	Shawver Const.	Domestic	118	4	52	352240
272919	Glenda Gilmore	Domestic	135	4	63	354041
272919	Gene Kelley	Domestic	142	4	52	356628
272919	Frank Reynolds	Domestic	48	4	32	358801
272919	Shawver Const.	Domestic	128	4	55	359266
272919	Phyllis G. Ansley	Domestic	161	4	62	370814
272919	Shawver Const.	Domestic	140	4	52	371165
272919	Manuel Pintado	Domestic	137	4	80	373114
272919	Shawver Const.	Domestic	131	4	52	376071
972919	Shawver Const	Domoetic	130	_	83	376072

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
272919	Michael Anderson	Domestic	100	4	50	381082
272919	William Waycasser	Domestic	85	4	50	402304
272919	Allstate Homes	Domestic	80	4	52	402655
272919	Roger Gregory	Domestic	06	4	52	404161
272919	David Falcon	Domestic	06	4	42	406184
272919	Sarah Clouts	Domestic	09	4	50	417511
272919	Wallace Sheppard	Domestic	70	4	52	419985
272919	Eugene Folson	Domestic	70	4	52	420437
272919	Allstate Homes	Domestic	120	4	42	428968
272919	Jose Hernandez	Domestic	100	4	56	440412
272919	Antonio Perez	Domestic	63	4	42	442615
272919	Lawrence White	Domestic	06	4	56	458853
272919	Joseph A. Kzawczyk	Domestic	75	4	42	470066
272919	Richard Crouch	Domestic	140	4	42	471666
272919	James L. Jackson	Domestic	80	4	52	472141
272919	J.J.L. Development	Domestic	115	4	10	473839
272919	Larry Meadows	Domestic	75	4	44	482392
272919	Jose Puerto	Domestic	Ą	4	NA	505647
272919	H. Pate	Mining	75	4	41	318680
272919	Chevron USA Inc.	Monitoring	<u>t</u>	2	m	436565

**TABLE 2.2-2** 

Location	Outroop Name	Well Tune	Well Depth	Well Diameter	Case Depth	O State No.
STR	Owner name	adkı ıha	(Leer)	(miches)	(Leer)	Lenning
272919	Circle K	Monitoring	15	2	13	462925
272919	Circle K	Monitoring	15	2	13	462926
272919	Circle K	Monitoring	15	2	13	462927
272919	Circle K	Monitoring	15	2	13	462968
272919	Karpay Company	Monitoring	15	2	5	464901
272919	Karpay Company	Monitoring	15	2	5	464902
272919	Chevron	Monitoring	28	2	23	474833
272919	Kelly Electric	Monitoring	ΑN	2	ΨN	507270
272919	Kelly Electric	Monitoring	Ą	2	ĄN	507271
272919	Kelly Electric	Monitoring	Ą	2	Ϋ́Z	507272
272919	Kelly Electric	Monitoring	¥	2	ĄN	507273
272919	Kelly Electric	Monitoring	A	2	NA	507274
342919	Felipe L. Pineiro	Irrigation	20	2	50	376413
342919	Pefersonal Electric Co.	Irrigation	120	4	84	398892
342919	Roberta Nos	Public Supply	115	4	65	313993
342919	Engineered Chemicals	Public Supply	06	4	52	396686
342919	Richards Fuel	Public Supply	120	4	61	39972
342919	Fasco, Inc.	Public Supply	09	4	47	421192
342919	Key Construction	Public Supply	180	4	94	427356
342919	Tampa Amalgamated Steel	Public Supply	06	4	64	434502

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
342919	Isabel Arcia	Domestic	81	2	25	350227
342919	Carmen J. Cannella	Domestic	132	2	107	352470
342919	Manuel Carbo	Domestic	86	2	45	370802
342919	Isabel Arcia	Domestic	85	2	40	371148
342919	Luis F. Safoxit	Domestic	97	2	45	418760
342919	Luis Gonzalez	Domestic	65	2	48	421522
342919	Esteban Perez	Domestic	09	2	45	427513
342919	Isabel Arcia	Domestic	70	2	42	458645
342919	Carlos Greidinger	Domestic	64	2	42	482952
342919	Dewane B. Bennett	Domestic	63	2	36	483308
342919	M. Trejo	Domestic	09	3	32	307804
342919	C.T. Davidso	Domestic	06	က	42	312382
342919	Steel Crete	Domestic	76	3	38	313765
342919	S. Freind	Domestic	115	3	63	333507
342919	L.E. Horton	Domestic	75	8	54	339939
342919	T. Horton	Domestic	82	က	54	343852
342919	Rebecca H. Collins	Domestic	100	3	40	395662
342919	John A. Demmi	Domestic	125	4	53	306095
342919	J. Barber	Domestic	200	4	56	309419
342919	P W Nichols	Domestic	71.5	4	51	319021

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
342919	T. Nunn	Domestic	158	4	123	325618
342919	D.E. Connell	Domestic	135	4	42	333331
342919	R.J. Mikols	Domestic	63	4	14	333752
342919	J. Joyce	Domestic	123	4	36	336366
342919	R. Manring	Domestic	06	4	57	336801
342919	T.A. Gower	Domestic	59	4	41	348028
342919	Ray D. Wilson	Domestic	101	4	49	348032
342919	K.B. Scull	Domestic	06	4	63	358640
342919	Daniel Richert	Domestic	105	4	42	359283
342919	Henry Valdez	Domestic	29	4	31	374875
342919	Erwin Leiss	Domestic	63	4	47	385865
342919	Allstate Homes	Domestic	100	4	51	389809
342919	James R. Brown	Domestic	85	4	52	394257
342919	George Beachum	Domestic	73	4	73	401874
342919	William Dennis	Domestic	AN	4	NA	407098
342919	John Windel	Domestic	62	4	62	410052
342919	Rudolph Chavez	Domestic	72	4	63	412500
342919	Jerry Fernandez	Domestic	100	4	42	412755
342919	Rex Chivers	Domestic	80	4	52	440651
342919	All State Manufactured Homes,	Domestic	80	4	32	443714

**TABLE 2.2-2** 

Location S T R	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
342919	R.C. Anderson	Domestic	102	4	88	483126
342919	Nitram, Inc.	Repair	0	œ	80	404710
342919	Tampa Bay Trucking	Industrial	06	4	63	379718
342919	Plantain Products Co.	Industrial	98	9	63	407983
342919	Nitram, Inc.	Industrial	350	œ	80	413273
342919	Nitran Chemical, Inc.	Industrial	503	12	75	315554
342919	Nitram, Inc.	Monitoring	14	2	14	402617
342919	Nitram, Inc.	Monitoring	20	2	15	402618
342919	Nitram, Inc.	Monitoring	19	2	19	402619
342919	Nitram, Inc.	Monitoring	18	2	18	402620
342919	Nitram, Inc.	Monitoring	18	2	18	402621
342919	Southern Mill Creek Products	Monitoring	45	2	31	412122
342919	Southern Mill Creek Products	Monitoring	43	2	29	412123
342919	Southern Mill Creek Products	Monitoring	40	2	28	412124
342919	Radiant Oil Co.	Monitoring	80	2	2	419233
342919	J.H. Williams Oil Co.	Monitoring	10	2	10	422143
342919	J.H. Williams Oil Co.	Monitoring	10	2	10	422144
342919	J.H. Williams Oil Co.	Monitoring	10	2	10	422145
342919	J.H. Williams Oil Co.	Monitoring	10	2	10	422146
342919		1 1	i	(		1

**TABLE 2.2-2** 

Location	Owner	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
342919	o i O ref	Monitoring	25	2	15	424788
040040	() II () 10 10 10 10 10 10 10 10 10 10 10 10 10	Monitoring	25	,	, t	0877780
42313	Star Oil Co.		2	1 0	5 4	424700
342919	Star Oil Co.	Monitoring	67	7	15	424790
342919	Star Oil Co.	Monitoring	25	2	15	424791
342919	Star Oil Co.	Monitoring	25	2	15	424792
342919	Southern Mill Creek Products	Monitoring	41	2	29	433361
342919	Southern Mill Creek Products	Monitoring	41	2	29	433362
342919	Southern Mill Creek Products	Monitoring	62	2	48	433363
342919	Chemco Elec. Company	Monitoring	15	2	15	465814
342919	Chemco Elec. Company	Monitoring	15	2	15	465815
342919	Chemco Elec. Company	Monitoring	15	2	15	465816
342919	Chemco Elec. Company	Monitoring	15	2	15	465817
342919	Combustion Equipment, Inc.	Monitoring	15	2	15	466851
342919	Combustion Equipment, Inc.	Monitoring	15	2	15	466851
342919	Combustion Equipment, Inc.	Monitoring	15	2	15	466852
342919	Combustion Equipment, Inc.	Monitoring	15	2	15	466853
342919	Nitram, Inc.	Monitoring	18	2	18	472365
342919	Nitram, Inc.	Monitoring	12	2	7	472366
342919	Nitram, Inc.	Monitoring	12	2	7	472367
242040						

**TABLE 2.2-2** 

Location	Owner Name	Well Type	Well Depth (Feet)	Well Diameter (Inches)	Case Depth (Feet)	Permit No.
342919	Mariani Asphalt Company	Monitoring	15	2	15	474073
342919	Mariani Asphalt Company	Monitoring	15	2	15	474074
342919	Carl A. Larson	Monitoring	15	2	4	496860
342919	Carl A. Larson	Monitoring	15	2	4	496861
342919	Carl A. Larson	Monitoring	15	2	4	496862
342919	Carl A. Larson	Monitoring	15	2	4	496863
342919	Nitran, Inc.	Monitoring	300	4	59	325775
342919	Chloride Metals	Monitoring	65	4	50	361895
342919	Chloride Metals	Monitoring	15	4	10	374087
342919	Chloride Metals	Monitoring	15	4	10	374088
342919	Chloride Metals	Monitoring	15	4	10	374089
342919	Chloride Metals	Monitoring	15	4	10	374090
342919	Nitram, Inc.	Monitoring	19	4	4	401197
342919	Tom Anderson	Monitoring	86	4	42	474483
272919	Robert Thomas	Domestic	140	4	80	537605.01
272919	Richard Guagliardo	Domestic	101	4	09	547581.01
272919	Jorge Gourrie	Domestic	100	4	63	557586.01
272919	Patricia M. Shafer	Public Supply	120	4	09	572177.01
272919	Roberto Nunez	Domestic	not listed	4	not listed	584028.01
342919	Vatche Naliavan	Domestic	95	4	63	566121 01

### **TABLE 2.2-2**

Revisio	n Nu	mber	0
Date		05/27/	11
Page	4	of	4

4.	Attach a	a topographic map which shows all the features indicated in the instructions for t.
5.	Is the fa	acility located in a 100-year flood plain?
6.		ility complies with the wellhead protection requirements of Rule 62-730.521,  Yes No
C.	Land U	se Information
1.	The pre	esent zoning of the site is
2.	If a zon	ing change is needed, what should the new zoning be?
D.		ing Information
1	Is waste	e generated on-site? X Yes No
2.	List the	NAICS codes (5 to 6 digits)
3.	Use the Specify	e codes and units provided in the instructions to complete the following table.
	a.	Each process used for treating, storing or disposing of hazardous waste (including design capacities) at the facility, and
	b.	The hazardous waste(s) listed or designated in 40 CFR Part 261, including the annual quantities, to be treated, stored, or disposed by each process at the facility.

PROCESS CODE	PROCESS DESIGN CAPACITY AND UNITS OF MEASURE	HAZARDOUS WASTE CODE	ANNUAL QUANITY OF HAZARDOUS WASTE AND UNITS OF MEASURE
See Attached			

### Drainage or Flood Control Barriers

The facility's parking areas are sloped such that rainwater run-off will accumulate in the ditch on the southern part of the site, which is connected to the retention pond.

### Hazardous Waste Units

Figure 2.2-5 shows hazardous waste management units.

### Wind Rose

A wind rose for Tampa, Florida is shown in Figure 2.2-6.

### Part I D. Operating Information

### 2. DESCRIPTION OF FACILITY OPERATION

### Description of the Business

Safety-Kleen Systems, Inc. of Plano, Texas is an international, service-oriented company whose customers are primarily engaged in automotive repair and industrial maintenance. Since 1968, Safety-Kleen has been offering a leasing service for petroleum-based hydrocarbon solvents and small parts washing equipment.

Safety-Kleen's solvent cycle is essentially a closed loop, moving from the Branch to the customer, from the customer to the Branch, from the Branch to the recycle facility, and then from the recycle center back to the Branch for redistribution to customers. This closed loop supplies Safety-Kleen with most of its solvent requirements (nearly two-thirds of the clean solvent delivered to the field has been previously used by its customers). Ownership of the solvent remains with Safety-Kleen. Solvent containers (product and waste) are transported in specially-equipped, enclosed route trucks. Three aboveground tanks are maintained at the Safety-Kleen Tampa facility for the storage of waste solvent, product 150 Solvent, and Used Oil.

The Safety-Kleen parts washing equipment, together with the solvents, are leased to customers; the leasing charge includes regularly scheduled solvent changes and machine maintenance. The business is conducted from local Branches (sales branches) located in 45 states. The Branches warehouse the products and equipment required to service the

customers in their sales areas. On a contractual basis, service representatives furnish clean solvent to the customers, pick up the used solvent, and ensure that the leased equipment is in good working order. In 1979, Safety-Kleen expanded their scope of operations to make their solvent leasing service available to owners of parts cleaning equipment, regardless of manufacturer, using Safety-Kleen's solvents.

Basically, Safety-Kleen handles two types of parts washers. The original service offered by the company in 1968 was the parts cleaner service and it remains the primary business activity. This service involves the leasing of a small parts degreasing unit which consists of a sink affixed to a container of parts washer solvent. On a regularly scheduled basis, a Safety-Kleen sales representative cleans and inspects the parts washer machine and replaces the container of used solvent with one of clean product. Safety-Kleen has also established a parts cleaner service for users who own their machines. This service provides a solvent reclamation service to these customers regardless of machine model. All clean parts washer solvents are delivered to customers in containers. All spent parts washer solvents are transported from the customer to the Branch in containers.

Upon return of the spent solvent to the branch, the material is transferred from the containers to a wet dumpster. Most of the 150 solvent used by customers will be utilized by the Branch for the washing of used containers. After drums have been washed, the spent solvent is pumped into the waste solvent storage tank. Cleaned containers are filled with product solvent in preparation for the next day's services. Periodically, a tanker truck is dispatched from one of the Safety-Kleen recycle centers to deliver a load of clean solvent and collect the spent solvent at the Branch.

Containers of clean solvent may be stored at the return/fill station or in the permitted storage areas. Containers of waste solvent may be stored in the permitted storage areas.

A second type of parts washer, the immersion cleaner, is available for the removal of varnish and gum from such things as carburetors and transmissions. This machine consists of an immersible basket with an agitator affixed to a container of the immersion cleaner. The spent solvent remains in the container after delivery to the Branch, where it is stored in a permitted storage area of the warehouse. Periodically, a box trailer truck is dispatched from a Safety-Kleen recycle center to deliver containers of fresh solvent and

collect the containers of spent solvent for reclamation. Warehouse space is dedicated for the storage of clean immersion cleaner. The immersion cleaner remains in the original covered containers during transfer between the Branch and the recycle facilities.

Safety-Kleen provides a dry cleaning waste reclamation service where containers of dry cleaning wastes are collected and stored temporarily at the Branch before shipment to the recycle centers for reclamation and processing. All dry cleaning wastes remain in their original containers while at the Tampa facility.

Safety-Kleen also provides a paint waste reclamation service. Wastes containing various thinners and paints are collected in containers and stored temporarily at the Branch before shipment to the recycle centers for reclamation and processing. Paint wastes are managed as permitted wastes. All paint wastes remain in their original containers while at the Tampa facility.

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Branch. Under this program, other types of waste are collected by the Branch and sent to the recycle centers. The FRS wastes are managed as transfer wastes. Examples of the types of waste that may be received from FRS customers include:

- 1. Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, naphtha, etc.
- 2. Lubricating oils, hydraulic oils, synthetic oils, and machine oils.
- 3. Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, Freon, and trichloroethane.
- 4. Photographic and x-ray related wastes.
- 5. Paint and lacquer thinners.
- 6. Other hazardous and nonhazardous halogenated and nonhalogenated wastes.

In 1990, Safety-Kleen began offering a service for the collection of spent antifreeze (ethylene glycol) from automobile service stations. This service is offered in conjunction with Safety-Kleen's used oil collection service. All used antifreeze collected and managed by Safety-Kleen within Florida is recycled. The trucks used to collect and transport waste ethylene glycol are the same trucks used for collection and transportation of used oil. At the customer's location, Safety-Kleen pumps used antifreeze and transports the material to the branch, or Bidsite, for off-loading into a tank, or rail car for storage. The ethylene glycol/used oil mixture is transferred by rail to the Safety-Kleen re-refinery in East Chicago, Indiana, where the ethylene glycol is extracted from the oil by distillation. After separation, the ethylene glycol is shipped to a glycol refinery for additional purification into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's Best Management Practices for Managing Used Antifreeze at Vehicle Repair Facilities, dated April, 2011.

In 1996, the Branch became registered in Florida as a transporter and storage facility for mercury-containing lamps and devices destined for recycling. This registration includes a commitment to comply with the requirements of Florida Administrative Code (FAC) 62-737.400. As a registered storage facility, the Branch can store up to 2,000 kilograms of lamps/devices for a period of up to 180 days. Safety-Kleen provides customers with empty four-foot and eight-foot boxes which hold up to 39 lamps. Boxes containing lamps are picked up from customers and are handled at the Branch as nonhazardous transfer wastes. The boxes are stored at the Branch in a designated area that is labeled in accordance with FAC 62-737.400(5)(b), and is partially isolated from other transfer wastes to avoid potential for accidental breakage. The boxes are periodically shipped to a permitted mercury recovery or reclamation facility. Prior to shipment out of the Branch, the boxes are placed on pallets and shrink-wrapped with plastic.

Containers of hazardous waste are picked up at customer locations and transported back to the Branch in route trucks. Each route truck is equipped with a hand-truck and electric lift gate for movement of containers. Upon arrival at the Branch, containers are placed on pallets and moved by forklift to the appropriate areas for storage. Containers of used parts washer solvent are unloaded at the return/fill area and are dumped by hand into the wet dumpster for transfer via piping to the hazardous waste used solvent tank. Forklifts are

used for loading containerized hazardous waste containers onto trucks for transport to Safety-Kleen recycle centers.

Safety-Kleen constructed the Tampa Branch with the intent that it will be a long-term facility for the distribution of Safety-Kleen products. No on-site disposal activity occurs at the facility and, hence no disposal capacity will be exhausted that will necessitate closure of the facility. Based on the current business and facility conditions, the Tampa facility is expected to remain in operation at least until the year 2035.

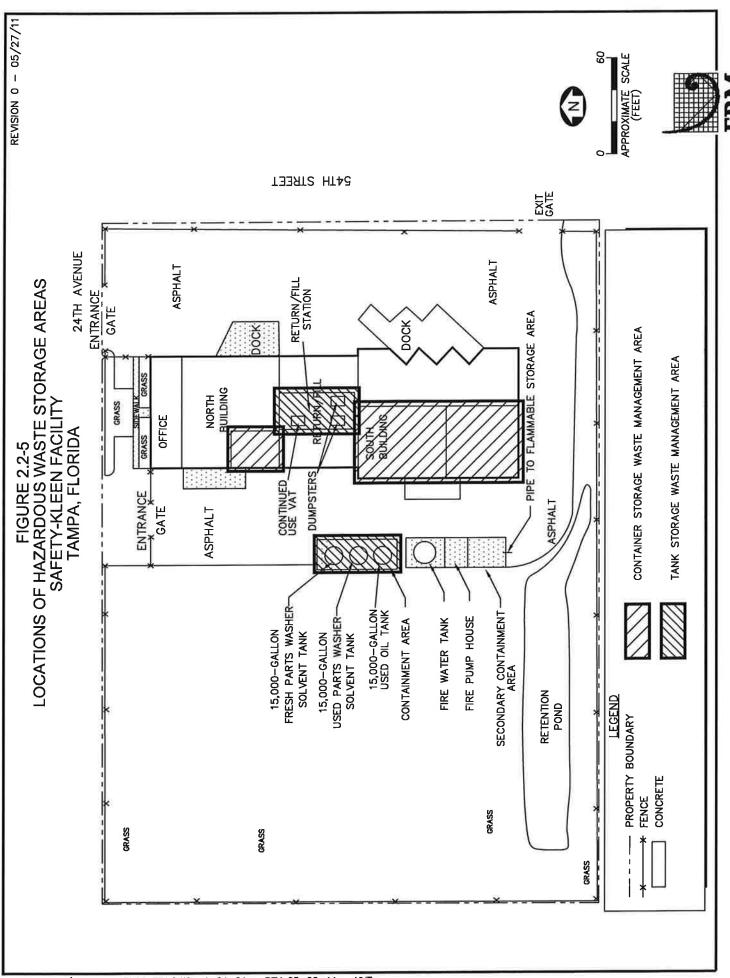
PART I D. Operating Information 3.

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent	S01* S02**	813	D001 and D-codes listed in Note below
Branch-Generated Liquids Solids (Debris)	S01*	17	D001 and D-codes listed in Note below; F001, F002, F003, F004, F005
Dumpster Sediment	S01*	Included above	D-codes listed in note below
Tank Bottoms	S01*	Included above	D-codes listed in note below
Used Immersion Cleaner (IC 699)	S01*	28	D-codes listed in note below
Dry Cleaning Waste (Perchloroethylene)	S01*	350	F002 and D-codes listed in note below
Dry Cleaning Waste (Non-perchloroethylene)	S01*	Included above	D001 andD-codes listed in note below
Paint Wastes	S01*	69	D001, F003, F005 and D-codes listed in note below
Fluid Recovery Service (FRS)	S01***	250	Transfer wastes-waste codes assigned by generator
Mercury-Containing Lamps/Devices	N/A***	Less than 2.2	N/A-handled as non-hazardous transfer wastes

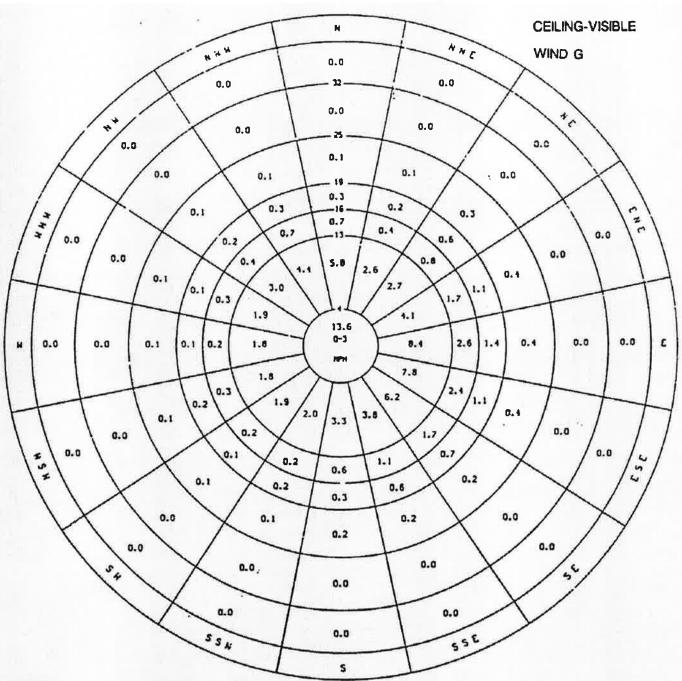
### **NOTES:**

D-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

- This waste will be stored in containers in the north or south building container storage area. The
  maximum capacity in the north container storage area is 5,200 gallons. The maximum capacity in
  the south container storage area is 12,749 gallons of flammables and 41,220 gallons of
  nonflammables.
- \*\* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled to 14,250 gallons
- \*\*\* This waste will be held for transfer in containers in the transfer area



## **FIGURE 2.2-6** WIND ROSE SAFETY-KLEEN FACILITY TAMPA, FLORIDA



## LEGEND

WIND ROSE GRAPH OBTAINED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

WIND ROSE BASED ON DATA COLLECTED FROM 1948 THROUGH 1978 FROM TAMPA INTERNATIONAL AIRPORT

WIND ROSE OBTAINED IN JANUARY 1991.

FIGURE PRODUCED MAY 1991



Revision Number O
Date 5-27-//
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## APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT CERTIFICATION TO BE COMPLETED BY ALL APPLICANTS

Signature and Certification

Facility Name
EPA/DEP I.D. No. FLD 980847271
The following certifications must be included with the submittal of an application for a hazardou waste authorization. The certifications must be signed by the owner of a sole proprietorship; of by a general partner of a partnership; or by a principal executive officer of at least the level of viological president of a corporation or business association, or by a duly authorized representative of the person. If the same person is a facility operator, facility owner, and real property owner, the person can cross out and initial the signature blocks under "1. Facility Operator" and "2. Facility Owner," and add the words "Facility Owner and Operator" at the line "Signature of the Landowner or Authorized Representative."
1. Facility Operator
I certify under penalty of law that this document and all attachments were prepared under modification or supervision in accordance with a system designed to assure that qualified personne properly gathered and evaluated the information submitted. Based on my inquiry of the person 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. Further, I agree comply with the provisions of Chapter 403, Florida Statutes, and all rules of the Department Environmental Protection. It is understood that the permit is only transferable in accordance with Chapter 62-730, F.A.C., and, if granted a permit, the Department of Environmental Protection when the sale or legal transfer of the permitted facility.
Signature of the Operator or Authorized Representative*
Billy R. Ross Vice President - EHS Name and Title (Please type or print)
Date 5/2/11

Attach a letter of authorization

Telephone (406) 468-9192

Revision	on Number O
Date	5-27-11
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#### 2. Facility Owner

This is to certify that I understand this application is submitted for the purpose of obtaining a permit to construct, operate, or conduct remedial activities at a hazardous waste management facility on the property as described. As owner of the facility, I understand fully that the facility operator and I are jointly responsible for compliance with the provisions if Chapter 403, Florida Statutes, and all rules of the Department of Environmental Protection.

		Bill	Den			
Signatu	re of t	he Facility	Owner o	r Authoriz	ed Repres	entative*
Billy	R	le (Please	Vice	Presi	dent -	EHS
			type or I	print)		
Date	5	12/11				
Telepho	ne ( <u>4</u>	106, 46	8-91	92		

#### 3. Land Owner

This is to certify that I, as land owner, understand that this application is submitted for the purpose of obtaining a permit for the construction, operation or postclosure of a hazardous waste management facility on the property as described. For hazardous waste facilities that close with waste in place, I further understand that I am responsible for providing the notice in the deed to the property required by 40 CFR 264.119 and 265.119, as adopted by reference in Chapter 62-730, F.A.C.

<sup>\*</sup> Attach a letter of authorization

<sup>\*</sup> Attach a letter of authorization



## **Signatory Authority Delegation**

I, Billy R. Ross, Vice President of Environment Health & Safety (EHS), have full signatory authority on behalf of Safety-Kleen Systems, Inc. under 40 CFR §270.11(b) for all reports and permit applications being submitted to any federal, state, or local regulatory agencies.

Billy R. Ross, P.E.

Vice President, EHS - Branches/ACs/DCs

- 40 CFR § 270.11 Signatories to permit applications and reports.
  - (a) Applications. All permit applications shall be signed as follows:
- (1) For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decisionmaking functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described in paragraph (a) of this section;
- (2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  - (3) The written authorization is submitted to the Director.

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## 4. Professional Engineer Registered in Florida

Complete this certification when required to do so by Chapter 471, F.S., or when not exempted by Rule 62-730.220(7), F.A.C.

This is to certify that the engineering features of this hazardous waste management facility have been designed or examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgement, this facility, when properly constructed, maintained and operated, or closed, will comply with all applicable statutes of the State of Florida and rules of the Department of Environmental Protection.

R2/Ix		
Signature		•
Robert W. Fox		
Name (please type)	P	17
Florida Registration Number40980		
Mailing Address 5909 Hampton Oaks	s Pkwy., Suite	D
ou out of 1	.e. 20x	
Tampa	FL	33610
city	state	zip
Date May 20, 2011		
	2 5	
Telephone (813) 622-8727 x110		
(PLEASE AFFIX SEAL)		
(FLLASE AFI IA SLAL)	A	20/12
		NXX

#### Part II

#### A. General

#### 1. SITE TOPPOGRAPHY AND SURROUNDING LAND USE

Figure 2.2-1 is a USGS topographic map showing the facility. Due to the small size of the site, all of the information requested in FDEP's application form cannot be place on one map. Therefore, additional maps are provided here to present the additional information requested in the application form. Specific information requested in the permit application is provided below.

#### 100-Year Floodplain Area

Based on information available from the Federal Emergency Management Agency (Figure 2.2-2), the facility does not lie within the 100-year flood plain.

Surface Water Bodies Within One-Quarter Mile of the Facility Property Boundary (e.g., Intermittent Streams and Springs

With the exception of the onsite retention pond, there are no surface water bodies within a one-quarter mile radius of the facility, as shown in Figure 2.2-1.

## Surrounding Land Uses

Surrounding land uses are shown in Figure 2.2-3.

#### Legal Boundaries of the Facility

Figure 2.2-4 shows the property boundaries. The property boundaries have not changed. Figure 2.2-4 also shows building structures as they existed prior to a roof extension in the return/fill station. No further building revisions are planned at this time.

# Drinking Water Wells Listed in Public Records or Otherwise Known to the Applicant Within One-Quarter Mile of the Facility Property Boundary

Results of a well survey (wells within one-quarter mile of the site) are presented in Tables 2.2-1 and 2.2-2.

## Intake and Discharge Structures Within One Mile

There are no known intake or discharge structures within one mile.

## Run-Off Control System

The facility's paved areas are sloped such that most rainwater run-off will be directed to the ditch on the southern part of the site, which is connected to a retention pond. Any rainwater falling on the extreme north end of the property will be directed north to a drainage ditch that runs parallel to 24<sup>th</sup> Avenue South. The retention pond and southern drainage ditch direct storm water to the east where the system connects with a drainage ditch that runs parallel to 54<sup>th</sup> Street. Figure 2.2-4 illustrates the contours and anticipated surface water run-off direction.

#### Access Control (fences, gates, etc.)

Figure 2.1-1 shows access control features.

## Injection and Withdrawal Wells Both On Site and Off Site

There are no injection or withdrawal wells on site. Results of an inventory of wells within one-quarter mile of the site are presented in Tables 2.2-1 and 2.2-2.

#### **Buildings and Other Structures**

Buildings and other structures are shown in Figure 2.1-1.

## Contours Sufficient to Show Surface Water Flow

Figure 2.2-4 shows elevations at the facility. Anticipated surface water flow directions are shown in Figure 2.2-4.

#### Loading and Unloading Areas

Figure 2.1-2 shows loading and unloading areas in relation to the waste management areas. Additional details regarding traffic patterns are provided in Figure 2.1-2.

#### Drainage or Flood Control Barriers

The facility's parking areas are sloped such that rainwater run-off will accumulate in the ditch on the southern part of the site, which is connected to the retention pond.

#### Hazardous Waste Units

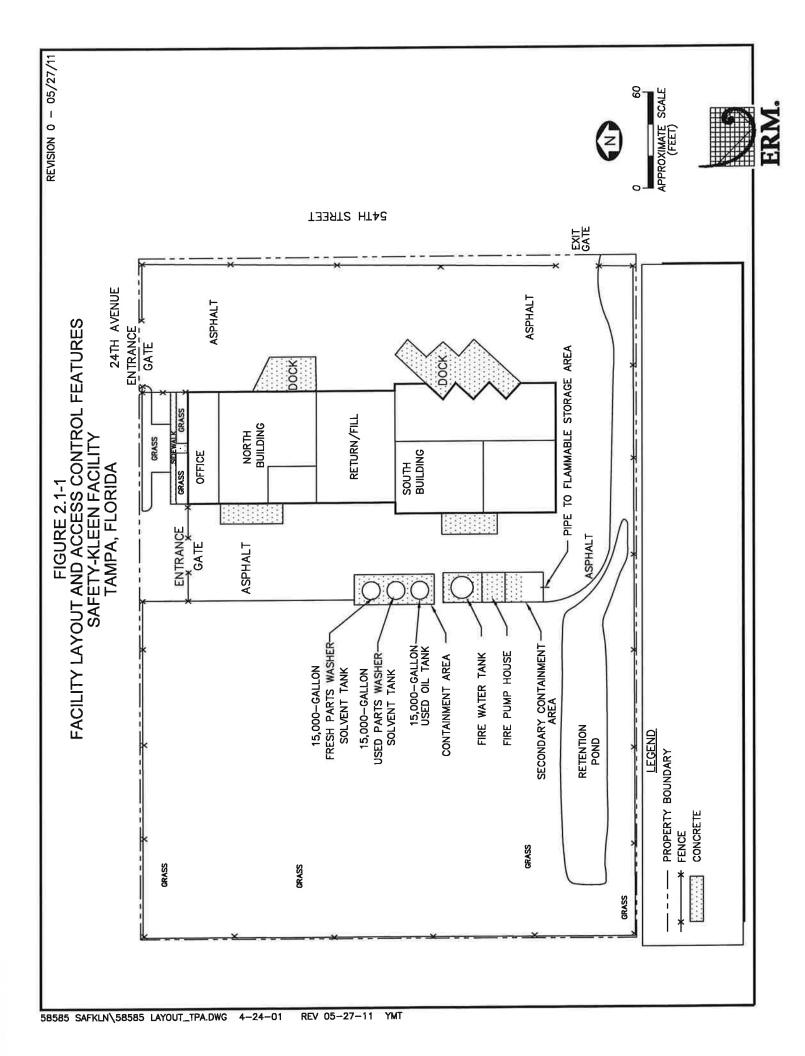
Figure 2.2-5 shows hazardous waste management units.

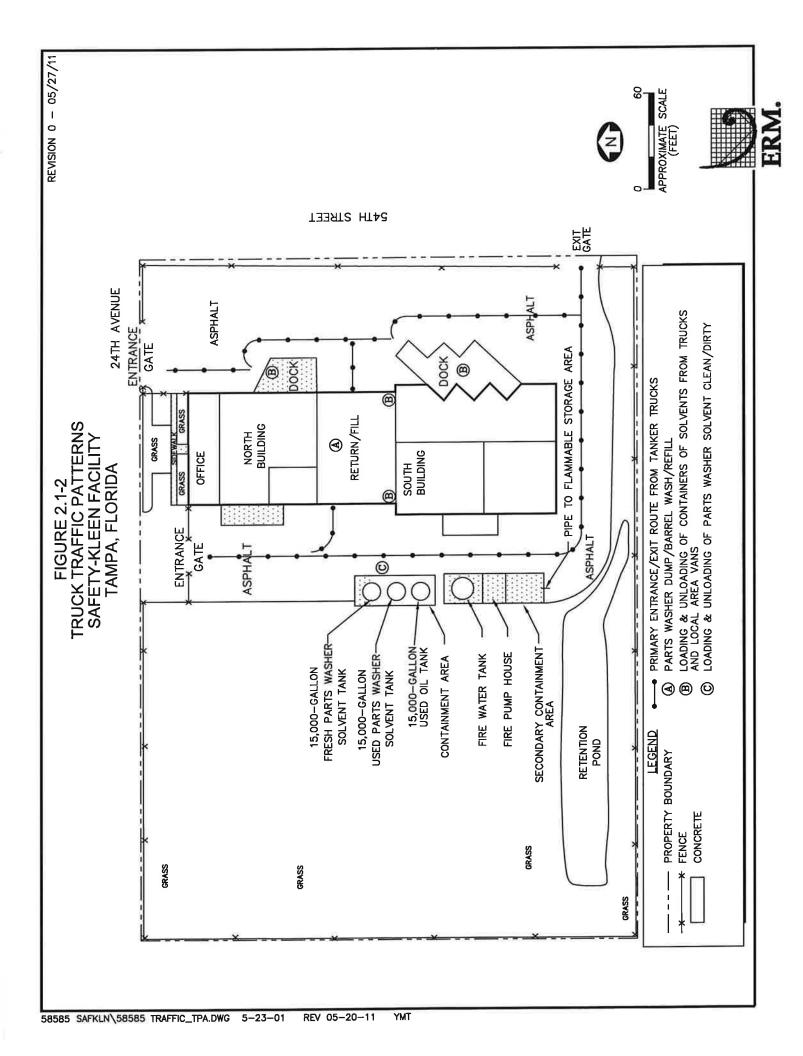
#### Wind Rose

A wind rose for Tampa, Florida is shown in Figure 2.2-6.

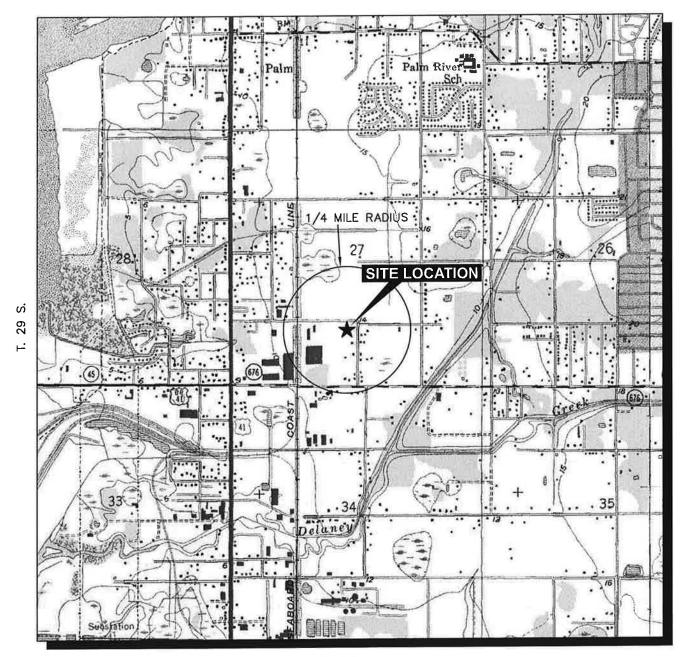
## FACILITY LAYOUT AND TRAFFIC PATTERNS

The facility layout is shown in Figure 2.1-1. Site traffic patterns are illustrated in Figure 2.1-2. Site photographs are provided in Appendix A. The majority of the vehicular traffic will enter and exit through the mechanically operated gate at the Northeast corner of the facility, which opens onto 24<sup>th</sup> Avenue South. The unloading and loading of the fresh parts washer solvent and spent parts washer solvent from tanker trucks occurs at Area C. The spent parts washer solvent and other containerized wastes arrive from customers in containers, and the solvent containers are poured into the dumpsters in the return/fill station between the two buildings (Area A). The spent solvent is pumped from the dumpsters to the waste tank. A tanker truck removes the waste solvent on a periodic basis and transports it to a Safety-Kleen recycle center.





## FIGURE 2.2-1 TOPOGRAPHIC MAP SAFETY-KLEEN FACILITY TAMPA, FLORIDA



R. 19 E.



QUADRANGLE LOCATION

O 2,000
APPROXIMATE SCALE
(FEET)

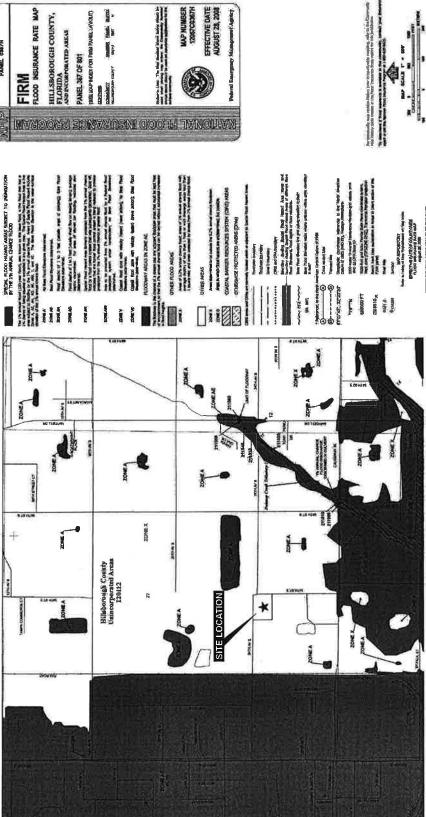


Source: USGS Quadrangle Map of Tampa, FL., Rev. 1981.

FIGURE 2.2-2 FEY FLOOD INSURANCE MAP SAFETY-KLEEN FACILITY TAMPA, FLORIDA

PANEL COUTH

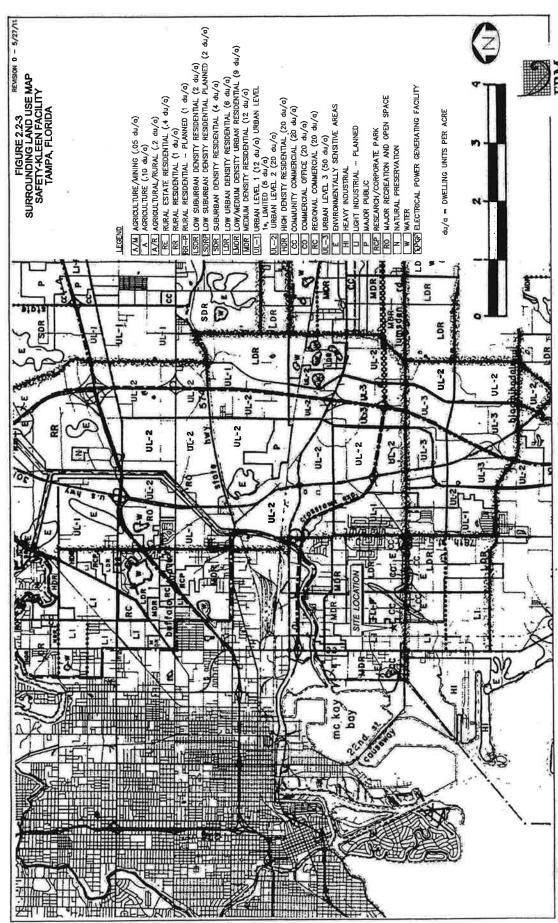
LEGEND



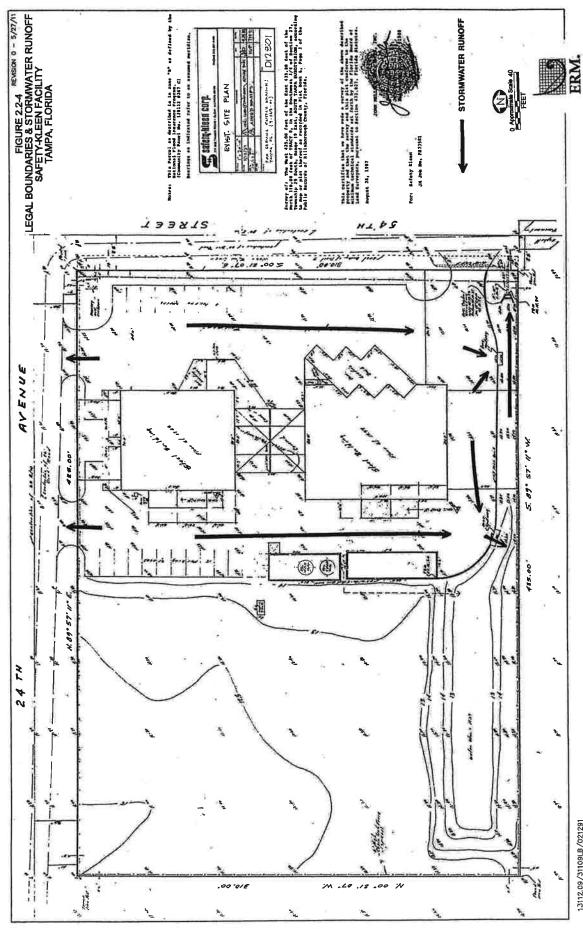


ERM.

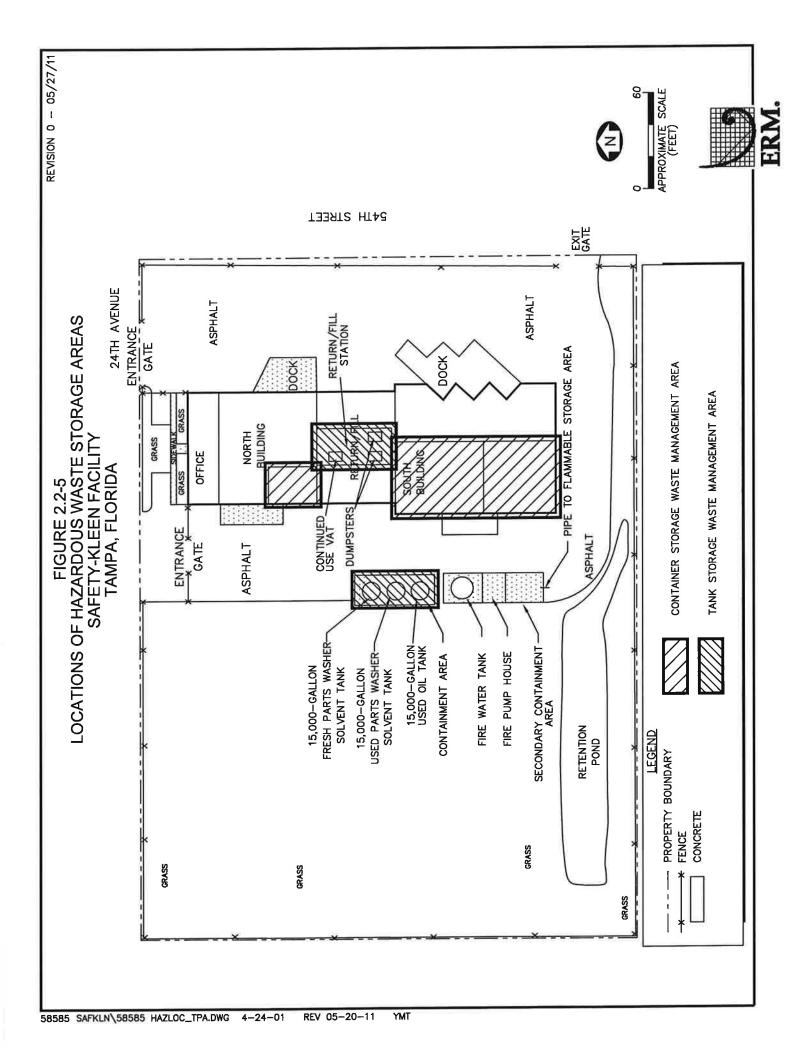
58585 SAFKLN\58585 FLOOD\_TPA.DWG 05/20/11 YMT



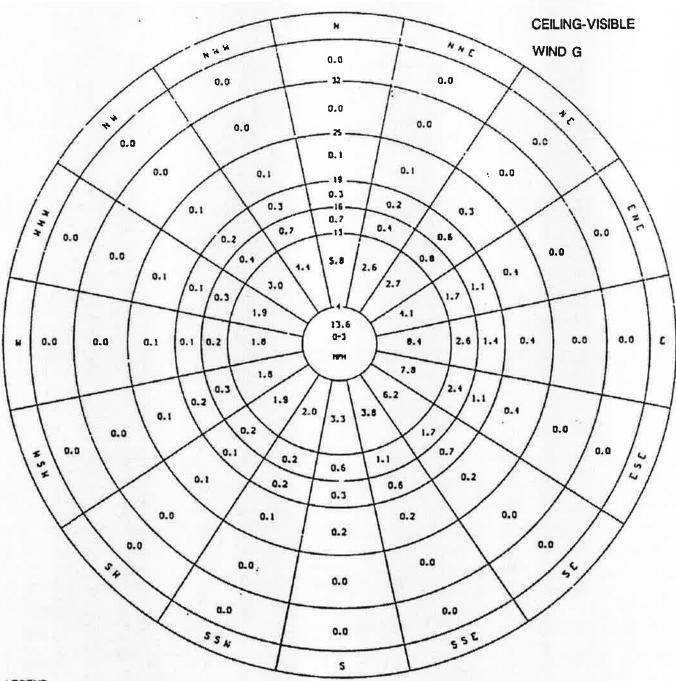
13112.09/31109LUM/021291



13112.09/31109LB/021291



## **FIGURE 2.2-6** WIND ROSE SAFETY-KLEEN FACILITY TAMPA, FLORIDA



## LEGEND

WIND ROSE GRAPH OBTAINED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

WIND ROSE BASED ON DATA COLLECTED FROM 1948 THROUGH 1978 FROM TAMPA INTERNATIONAL AIRPORT

WIND ROSE OBTAINED IN JANUARY 1991.

FIGURE PRODUCED MAY 1991



Containerized wastes from customer locations are off-loaded at the return/fill dock and also at the docks located in Area B. They are then moved to their appropriate storage location within 24 hours of arrival at the facility.

Approximately once a week a tractor trailer arrives at the facility to deliver product and pick up containerized waste for transport to the Safety-Kleen recycle centers. This truck backs up to the dock, located in Area B, to load and unload containers. 24<sup>th</sup> Avenue South and 54<sup>th</sup> Street are the major access roads to the facility. The access roads are designed in accordance with engineering criteria appropriate for sustaining the traffic volume and loading for the heavy industrial activities in this area. The vans that travel the routes daily between the service center and Safety-Kleen customers use the two-lane road within the industrial area. Traffic from this facility will have a minor impact on local traffic conditions.

#### Part II

#### A. General

#### 2. FINANCIAL ASSURANCE FOR CLOSURE

Safety-Kleen is the operator of the Tampa, Florida Branch. Financial assurance is provided through the use of the financial test specified in Subpart H of 40 CFR Part 264. The closure cost estimates were revised at the time of the last permit renewal application in 2006 and approved by the Department. Safety-Kleen believes that these estimates sufficiently represent current conditions if closure of the facility would be necessary. The current financial assurance mechanism has been annually adjusted with the inflation factor and is in place at the time of this permit application. Safety-Kleen will provide new estimates if the Department requires them.

able 1。2006 Closure Cost Estimate Worksheet, Safety-Kleen Branch Service Center, Tampa, Florida (316301)	)			
Activity	Category	Hourly Rate or Unit Charge	Unit	Sublotal (Includes 10% Markup for Subcontractors)
PROJECT COORDINATION AND SCHEDULING				
Prime Contractor Costs  - Obtain subcontractor quotes and coordinate activities with subcontractor prior to implementing closure	Project Manager	\$90	10	\$900
<ul> <li>Coordinate scope and schedule of project activities with owner/operator, decontamination contractor, regulatory agencies and analytical laboratory</li> </ul>	Project Manager	\$90	10	\$900
- Review facility permit and closure plan	Project Manager Field Engineer	\$90 \$58	6 6	\$540 \$348
- Prepare project/site specific Health and Safety Plan	Health/Safety Specialist	\$78	6	\$468
- Prepare project activity and project status reports	Project Manager	\$90	4	\$360
	Office Expenses Miscellaneous Expenses	\$100 \$100	1	\$100 \$100
MOBILIZE TO SITE AND PREPARE FOR CLOSURE  Activity 1. Sul	btotal			\$3,716
	, 1 Continued Use Solvent Product V	at maximum capac	city 200 gal	
MOBILIZE TO SITE AND PREPARE FOR CLOSURE  Assumptions  - Waste mineral spirits tank is full (15000 gallons)  - Maximum capacity 155 gallons of sediment per drum washer = 155 x 2 = 310 gallons = 6 - 55 gallon drums,  - Two CSA will be closed with maximum capacity of 46420 gallons = 928 - 55 gallon drums,	, 1 Continued Use Solvent Product V	at maximum capad \$475 \$475	eity 200 gal 2 2	lons = 4 - 55 gal. \$950
MOBILIZE TO SITE AND PREPARE FOR CLOSURE      Assumptions     - Waste mineral spirits tank is full (15000 gallons)     - Maximum capacity 155 gallons of sediment per drum washer = 155 x 2 = 310 gallons = 6 - 55 gallon drums,     - Two CSA will be closed with maximum capacity of 46420 gallons = 928 - 55 gallon drums,     - One Flammable Materials Storage Shelter with maximum capacity of 12749 gallons = 255 -55-gallon drums      Prime Contractor Costs     - Mobilize Prime Contractor	, 1 Continued Use Solvent Product Va s Project Manager	<b>\$</b> 475	2	\$950 \$950 \$950 \$720 \$47
Assumptions  - Waste mineral spirits tank is full (15000 gallons)  - Maximum capacity 155 gallons of sediment per drum washer = 155 x 2 = 310 gallons = 6 - 55 gallon drums,  - Two CSA will be closed with maximum capacity of 46420 gallons = 928 - 55 gallon drums,  - One Flammable Materials Storage Shelter with maximum capacity of 12749 gallons = 255 - 55-gallon drums  Prime Contractor Costs  - Mobilize Prime Contractor  (round trip = 2)  - Project Management and Supervision and participate in on-site	, 1 Continued Use Solvent Product Vo S Project Manager Field Engineer Project Manager Vehicle (per day)	\$475 \$475 \$90 \$47	2 2 8 1	\$950 \$950 \$950 \$720 \$47 \$90 \$464 \$47
Assumptions  - Waste mineral spirits tank is full (15000 gallons)  - Maximum capacity 155 gallons of sediment per drum washer = 155 x 2 = 310 gallons = 6 - 55 gallon drums,  - Two CSA will be closed with maximum capacity of 46420 gallons = 928 - 55 gallon drums,  - One Flammable Materials Storage Shelter with maximum capacity of 12749 gallons = 255 -55-gallon drums  - Mobilize Prime Contractor Costs  - Mobilize Prime Contractor  (round trip = 2)  - Project Management and Supervision and participate in on-site coordination meeting with owner/operator and subcontractors	, 1 Continued Use Solvent Product Vo Project Manager Field Engineer Project Manager Vehicle (per day) Per diem Field Engineer Vehicle (per day)	\$475 \$475 \$90 \$47 \$90 \$58 \$47	2 2 8 1 1 8	\$950 \$950 \$720

- Transfer tank contents to tankers
- Transport waste mineral spirits to a TSD for treatment/disposal

Estimated disposal/treatment cost (per gallon)

- Subcontractor per diem (total project 3 persons x 7 days)

Assumes 3 tanker trailers required to remove 15,000 gallons (5,000 gallons max each load) Estimated cost per mile =1.71/mile + markup, overhead and profit = \$2.37/mile Estimated mileage = 500 miles

- Transfer drum washer sediment to drums

- Transfer drums of drum washer sediment to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)

- Transfer drums from Flammable Materials Storage Shed to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)

- Transport drums to TSD for Treatment/Disposal

- Transfer drums from CSA to trucks with forklift (unit is based on total drums divided by 4 drums per pallet)

> Assumes 14 trucks to transport drums (84 per truck max) Estimated cost per mile \$2.09/mile + markup, overhead and profit = \$2.90/mile Estimated mileage = 500 miles Estimated disposal/treatment cost (per drum) (ETC 2004)

Transport 14 trailers x 500 miles TSD @ \$107/drum (ETC cost)

Per Diem

Labor/equipment/expenses

Transport 3 trailers x 500 miles

TSD @\$0.56/gallon (ETC cost)

Labor/equipment/expenses

Labor/equipment/expenses

Labor/equipment/expenses

Labor/equipment/expenses

\$2,90 7000 \$107 1183

\$90

\$0.32

\$2.37

\$0.560

\$0.95

\$36

\$36

\$36

21

15000

1500

15000

465

232

64

\$22,305 \$126,581 \$186,750

\$2,079

\$5,336

\$3,555

\$8,400

\$484

\$119

\$9,182

\$2,533

SK Tampa, FL Closure Cost Estimates Revision 0 - 05/19/2008

Activity 2. Subtotal

		Subtotal
Hourly Rate	Hours or	(Includes 10%
or	Unit	Markup for
Unit Charge	Estimate	Subcontractors

Category

Activity

## 3. STORAGE TANK DECONTAMINATION AND REMOVAL

- Assumptions: - The tank, piping and appurtenant equipment are removed and scrapped - Rinsate sampling is not necessary because the tank will be scrapped - Includes decontamination of the containment area

- 1 day to decontaminate AST and containment, 1 day to remove AST and scrap
   Assumes containment area to remain in place following decontamination
- Assumes 1 rinsate sample required to leave containment in place

Prime Contractor Costs	
- Project Management and Supervision Project Manager \$90 8	\$720
Vehicle (per day) \$47 1	\$47
Per diem \$90 1	\$90
- Supervise Storage Tank Decontamination and Removal Activities Field Engineer \$58 16	\$928
Vehicle (per day) \$47 2	\$94
Per diem \$90 2	\$180
Air monitoring equipment \$250 2	\$500
- Collect soil samples Sample Technician \$58 4	\$232
Vehicle (per day) \$47 0.5	\$24
Per diem \$90 0.5	\$45
Sample supplies/shipping \$200 LS	\$200
Subcontractor Costs	
- Disconnect electrical appurtenances Labor/equipment \$750 LS	\$825
- Decontaminate waste AST, piping and appurtenant equipment Labor \$2.06 1050	\$2,379
(unit cost based on pressure washing 40 sq ft/hour in level B PPE and 1050 sq ft Equipment \$1,268 LS total surface area)	\$1,395
- Decontaminate containment area Labor \$0.87 1446	\$1,384
(unit cost based on pressure washing 200 sq ft per hour (level C PPE) and 1446 sq ft)  Equipment  \$147  LS	\$162
- Remove AST from containment Labor/equipment/expenses \$3,581 LS Includes certificate of destruction for UST	\$3,939
Laboratory Subcontractor Costs	
- Analyze 1 rinsate sample from containment area for VOCs, SVOCs and metals (8)  VOCs @ \$139/sample  SVOCs @ \$296/sample  Metals @ \$91/sample  Total per sample cost \$526	\$579
- Analyze 3 soil samples for VOCs, SVOCs, and Metals (8)  VOCs @ \$139/sample  SVOCs @ \$296/sample  Metals @ \$91/sample  Preserved Sample Containers @ \$10/sample	
Total per sample cost \$536 3	\$1,769
Activity 3. Subtotal	\$15,491

		Subtotal
Hourly Rate	Hours or	(Includes 10%
or	Unit	Markup for
Unit Charge	Estimate	Subcontractors)

Activity

Category

## 4. DECONTAMINATE THE RETURN/FILL STATION

<u>Assumptions:</u>
- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray

- Return/Fill structure and dock area will remain in place
- Rinsate sampling is not necessary because the drum washers will be scrapped
- Assumes 2 soil samples required from beneath containment area. Actual number of samples will be based on engineer's inspection
- Square footage used for decontamination includes containment

quare tootage used for decontamination includes containment				
<ul> <li><u>Prime Contractor Costs</u></li> <li>Inspect containment for cracks, gaps, or other potential lapses of integrity (P.E. or designee)</li> </ul>	Project Engineer Vehicle (per day) Per diem	\$90 \$47 \$90	8 1 1	\$720 \$47 \$90
<ul> <li>Fill cracks and gaps (if necessary) prior to implementing decontamination activities</li> </ul>	Field Engineer Vehicle (per day) Per diem	\$58 \$50 \$100	4 0.5 0.5	\$232 \$25 \$50
<ul> <li>Supervise washing of R/F Station and associated components (i.e. piping, pumps, and appurtenances)</li> </ul>	Field Engineer Vehicle (per day) Per diem	\$58 \$47 \$90	16 2 2	\$928 \$94 \$180
<ul> <li>Collect 2 soil samples for analysis of VOCs, SVOCs and metals</li> <li>4 hrs total for sampling</li> </ul>	Field Engineer Vehicle (per day) Per diem Sample supplies	\$58 \$47 \$90 \$250	4 0.50 0.50 LS	\$232 \$24 \$45 \$250
Subcontractor Costs  - Decontaminate drum washers, grating, containment (unit cost based on pressure washing 40 sq ft/hour in level C PPE and 6000 sq ft total surface area)	Labor Equipment	\$1.74 \$1,268	6000 LS	\$11,484 \$1,395
- Drain/Flush piping (assumes 100 feet of waste piping)	Labor/equipment/expenses	\$582	LS	\$640
- Remove drum washers, ancillary equipment	Labor/equipment/expenses	\$1,331	LS	\$1,464
Laboratory Subcontractor Costs - Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$139/sample SVOCs @ \$296/sample Metals @ \$91/sample Preserved Sample Containers @ Total per sample cost	∮ \$10/sample \$536	2	\$1,179
Activity 4.	Subtotal			\$19,078

Unit Charge	Estimate	Subcontractors)
or	Unit	Markup for
Hourly Rate	Hours or	(Includes 10%
		Subtotal

Category

Activity

#### 5. DECONTAMINATE CONTAINER STORAGE AREA

#### Assumptions:

- Two CSA with total capacity of 46420 gallons/4704 sq ft
- Decontamination shall consist of washing with a detergent water solution and rinsing with a high-pressure spray
- CSA remains in-place following closure
- Decontamination of CSA includes floor, curbing and containment trenches, requires approximately 1 day.
   Any ramps leading into the storage areas (if present) will also be decontaminated.
   Assumes 1 rinsate and 2 soil samples required. Actual number of soil samples will be based on engineer's inspection.

Prime Contractor Costs	Project Engineer	\$90	8	\$720
<ul> <li>Inspect the floor of each CSA for cracks, gaps, or other potential lapses of integrity (P.E. or designee)</li> </ul>	Vehicle (per day)	\$47	1	\$47
lapses of integrity (F.E. of designee)	Per diem	\$90	1	\$90
- Fill cracks and gaps (if necessary) prior to implementing	Field Engineer	\$58	4	\$232
decontamination activities	Vehicle (per day)	\$47	0.5	\$24
ACCOLUMN TO THE STATE OF THE ST	Per diem	\$90	0.5	\$45
- Supervise and document decontamination of CSA	Field Engineer	\$58	8	\$464
	Vehicle (per day)	\$47	1	\$47
	Per diem	\$90	1	\$90
- Collect sample of final rinsate from each CSA and submit for	Field Engineer	\$58	4	\$232
laboratory analysis	Vehicle (per day)	\$47	0.5	\$24
	Per diem	\$90	0.5	\$45
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$58	4	\$232
- Collect 2 soil samples for analysis of \$005, \$\$000 and motals	Vehicle (per day)	\$47	0.5	\$24
	Per diem	\$90	0.5	\$45
	Sample supplies	<b>\$250</b>	LS	\$250
Subcontractor Costs		40.07	4704	\$4,502
Decontaminate container storage area	Labor	\$0,87	LS	\$1,114
(unit cost based on pressure washing 200 sq ft per hour (level C PPE) and 4704 sq ft)	Equipment	\$1,013	Lo	φ1,114
Laboratory Subcontractor Costs				
<ul> <li>Analyze 1 rinsate sample for VOCs, SVOCs and metals (8)</li> </ul>	VOCs @ \$139/sample SVOCs @ \$296/sample			
	Metals @ \$91/sample Total per sample cost	\$526	2	\$1,157
		φ020	2	Ψ1,101
<ul> <li>Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)</li> </ul>	VOCs @ \$139/sample			
	SVOCs @ \$296/sample			
	Metals @ \$91/sample	@ \$10/comple		
	Preserved Sample Containers Total per sample cost	@ \$10/sample \$536	2	\$1,179
	Total per sample cost	φυσσ		
Activity 5.	Subtotal			\$9,842

Hourly Rate Hours or Or Unit Charge Estimate Subtotal (Includes 10% Markup for Subcontractors)

Category

[ONLY INCLUDE ACTIVITY 6 IF SITE HAS A FLAM SHED SUBJECT TO CLOSURE, IF NOT, DELETE THIS ACTIVITY AND RENUMBER REMAINING ACTIVITIES] DECONTAMINATE THE FLAMMABLE STORAGE SHELTER

#### Assumptions:

- Decontamination shall consist of washing with detergent/water solution and rinsing with high-pressure spray
- Flammable Materials structure and dock area will remain in place
- Asumes 1 rinsate sample required to leave in place
- Assumes 2 soil samples required from beneath containment area, Actual number of samples will be based on engineer's inspection

Activity

- Square footage used for decontamination includes containment

Prime Contractor Costs				
- Inspect containment for cracks, gaps, or other potential	Project Engineer	\$90	8	\$720
lapses of integrity (P.E. or designee)	Vehicle (per day)	\$47	1	\$47
lapses of integrity (Tile) of designes)	Per diem	\$90	1	\$90
Pill la d'é (if ) acies le implementing	Field Engineer	\$58	4	\$232
<ul> <li>Fill cracks and gaps (if necessary) prior to implementing decontamination activities</li> </ul>	Vehicle (per day)	\$50	0.5	\$25
decontamination activities	Per diem	\$100	0.5	\$50
- Supervise washing of structure and containment	Field Engineer	\$58	16	\$928
- Supervise washing or structure and containment	Vehicle (per day)	\$47	2	\$94
	Per diem	\$90	2	\$180
- Collect sample of final rinsate from structure and submit for	Field Engineer	\$58	4	\$232
laboratory analysis	Vehicle (per day)	\$47	0.5	\$24
laboratory analysis	Per diem	\$90	0.5	\$45
- Collect 2 soil samples for analysis of VOCs, SVOCs and metals	Field Engineer	\$58	4	\$232
- Collect 2 3011 Sulfiplies for alliaryold of 4000, 04000 allia filotalis	Vehicle (per day)	\$47	0.50	\$24
- 4 hrs total for sampling	Per diem	\$90	0.50	\$45
, me source campaing	Sample supplies	\$250	LS	\$250
Subcontractor Costs				
- Decontaminate structure, grating, containment	Labor	\$1.74	2992	\$5,727
(unit cost based on pressure washing 40 sq ft/hour in level C PPE and 2992 sq ft total surface area)	Equipment	\$1,268	LS	\$1,395
Laboratory Subcontractor Costs				
- Analyze 1 rinsate sample for VOCs, SVOCs and metals (8)	VOCs @ \$139/sample			
Analysis i mosts sample to 1000, and an analysis (1)	SVOCs @ \$296/sample			
	Metals @ \$91/sample			
	Total per sample cost	\$526	1	\$579
- Analyze 2 soil samples for VOCs, SVOCs, and Metals (8)	VOCs @ \$139/sample			
	SVOCs @ \$296/sample			
	Metals @ \$91/sample			
	Preserved Sample Containers			64 470
	Total per sample cost	\$536	2	\$1,179
	Activity 6. Subtotal		<del>-</del>	\$12,096

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

#### Assumptions:

- 450 gallons wash water generated from decontamination of the return/fill structure, and 250 gallons for the containment = 700 gallons = 13 drums
- 1000 gallons of wash water generated from decontamination of CSA = 20 drums
- 500 gallons of wash water generated from deconlamination of Flammable Materials Storage Shelter = 10 drums
- PPE, plastic sheeting, consumables contained in 5 drums

<u>Prime Contractor Costs</u> - Ensure drums are properly labeled, coordinate pick up and disposal	Project Manager Vehicle (per day) Per diem	\$90 \$47 \$90	8 1 1	\$720 \$47 \$90
- Purchase 55-gallon drums	Drums @ \$67 each	\$67	48	\$3,538
Subcontractor Costs	Labor/equipment/expenses	\$36	12	\$475
<ul> <li>Load Drums for Transport with forklift (unit is based on total drums divided by 4/pallet)</li> </ul>	Laborrequipmentrexpenses	400	12	¥•
- Transport drums to TSD for Treatment/Disposal  Assumes 1 truck to transport 46 drums (84 per truck max)  Estimated cost per mile =\$2,09/mile = overhead and profit = \$2,90/mile  Estimated mileage = 500 miles  Estimated disposal/treatment cost/drum for rinsate	Transport 1 trailer x 500 miles TSD (based on ETC rate) TSD (based on ETC rate)	\$2.90 \$107 \$100	500 48 5	\$1,448 \$5,136 \$500
Estimated disposal/treatment cost for PPE drums (assumed haz to landfill)	Activity 7. Subtotal	\$100	5 -	\$11,954
	ACTIVITY 1. OLDIOTAL			<b>4.1,004</b>

		Hourly Rate	Hours or Unit	Subtotal (Includes 10% Markup for
Activity	Category			Subcontractors)
8. CLOSURE CERTIFICATION REPORT				
Assumptions: - Closure certification report signed by a State Registered P.E. and owner/operator - Closure results verify clean closure				
Prime Contractor Costs - Compile field notes, photographs, manifests and other documentation	Project Manager Field Engineer	\$90 \$58	4 8	\$360 \$464
- Compile any rinsate, and/or soil sample data into summary tables	Project Manager Field Engineer	\$90 \$58	8 8	\$720 \$464
- Prepare Closure Certification Report	Project Manager Field Engineer	\$90 \$58	20 8	\$1,800 \$464
- Prepare closure certification statement	Project Engineer	\$90	4	\$360
- Office Expenses	Drafting/Clerical Miscellaneous/Copying/Postage	\$35 \$150	4 LS	\$140 \$165
Ac	ctivity 8, Subtotal			\$4,937
COST ESTIMATE ACTIVITIES SUMMARY  1. PROJECT COORDINATION AND SCHEDULING  2. MOBILIZE TO SITE AND PREPARE FOR CLOSURE  3. STORAGE TANK DECONTAMINATION AND REMOVAL  4. DECONTAMINATE THE RETURN/FILL STATION  5. DECONTAMINATE CONTAINER STORAGE AREA  6. DECONTAMINATE THE FLAMMABLE STORAGE SHELTER  7. CONTAINERIZE, STAGE, TRANSPORT AND DISPOSE OF DECONTAMINATION WASTES  8. CLOSURE CERTIFICATION REPORT			,	\$3,716 \$186,750 \$15,491 \$19,078 \$9,842 \$12,096 \$11,954 \$4,937
SUBTOTAL LOCATION FACTOR For RS MEANS RATES (Location factor is 0.87 for Tampa, FL 33619) TOTAL CLOSURE COST ESTIMATE (Adjusted for location)				\$263,864 0.87 \$247,842

#### Notes:

- Prime Contractor, Decontamination Subcontractor labor rates, Transportation, Equipment and Analytical rates obtained from RS Means Environmental Remediation Cost Data,
- Prime contractor labor rates include overhead (20%), profit (20%) and markup (50%)
- Subcontractor labor rates include overhead (5%) and profit (10%)
- Assumes waste inventory and decontamination wastes transported to an appropriate TSD Facility, which is assumed to be located within 500 miles (for purposes of estimating mileage only)

   Waste Inventory disposal/treatment unit cost obtained from Environmental Technology Council, Fuels Blending Prices May 2004, and includes the low cost for bulk liquids (\$0.56/gallon) based on suitability of mineral spirits for fuel, and average cost (\$107/drum) for drummed wastes

   Location Factor is not applied to Waste Disposal costs derived from ETC

  CCE as of November 17, 2010 including inflation adjustment

\$279,911

Subtotal

#### Part II

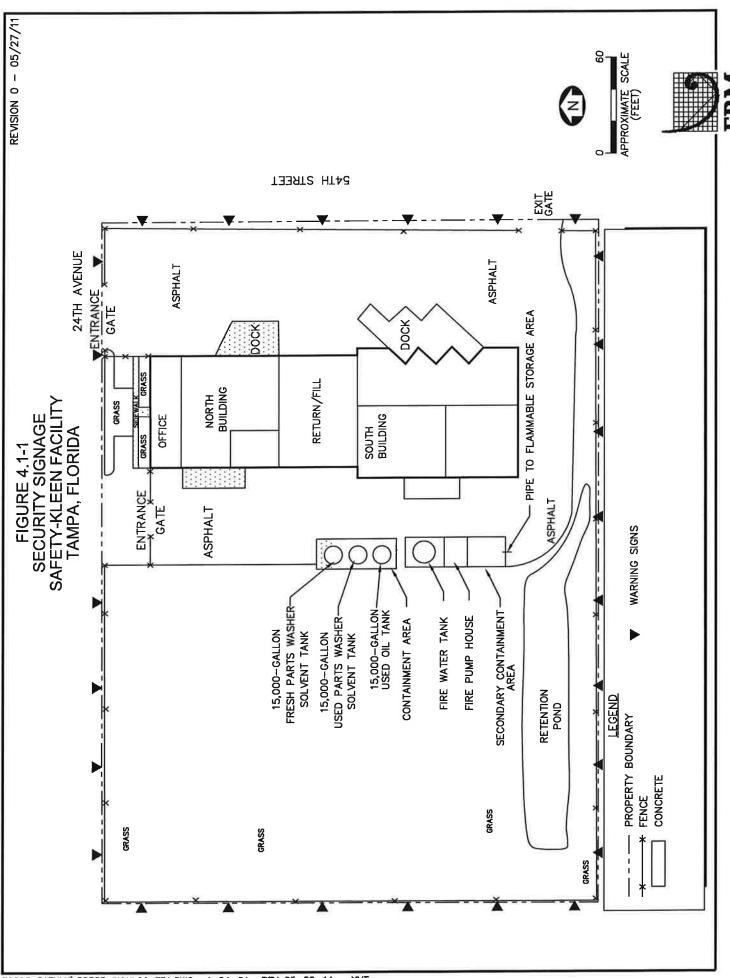
#### A. General

#### 4. FACILITY SECURITY

## SECURITY PROCEDURES AND EQUIPMENT

In accordance with 40 CFR 264.14, access to the facility is controlled through the following methods:

- Entry to the container storage and return/fill areas will be controlled through gates and doors. All gates and doors will be locked at all times when facility is not in operation.
   The entire facility is surrounded by a chain-link fence topped with barbed wire.
- 2. The combination of doors and signs prevents unknowing entry and minimizes the potential for unauthorized entry of people or livestock into the facility.
- 3. Signs are posted at the entrance of the facility and additional locations so that they are visible from any approach at 25 feet. Signs are marked "DANGER UNAUTHORIZED PERSONNEL KEEP OUT".
- 4. "NO SMOKING" signs are posted in areas where hazardous wastes are handled.



## SAFETY-KLEEN SYSTEMS, INC. TAMPA FACILITY

PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS

## Revision Date: 10/20/10

## Safety-Kleen 316301 Tampa Branch Emergency Phone Numbers

Primary:

John Walters

1521 Firewheel Dr.

Wesley Chapel, FL 33543 Office (813) 626-1203 Cell (813) 523-1059 Alternate:

Chris Otovic

11717 Brenford Crest Dr. Riverview, FL 33579 Office (813) 626-1203 Cell (813) 545-0842

**Emergency Notification Numbers** 

Infotrac (Safety-Kleen's 24 Hour Emergency Response Reporting System) 1-800-468-1760

Florida DEP- Southwest District

(813) 632-7600 (Monday – Friday, 8:00 a.m. to 5:00 p.m. except Holidays) After Hours, please call (850) 413-9911 or 1-800-320-0519

If you are unable to contact the DEP at the above, please call:
National Response Center 1-800-424-8802

## Emergency Teams to be Notified:

Hillsborough County Fire Department 715 South 58<sup>th</sup> Street Tampa, FL 33619 (813) 681-9927 or 911

Hillsborough County Sheriff's Department 508 33<sup>rd</sup> St. SE Ruskin, FL 33570 (813) 247-0455 or 911

Brandon Regional Hospital 119 Oakfield Drive Brandon, FL 33511 (813) 681-5551 **Primary Contact** 

SWS

901 McClosky Blvd. Tampa, FL 33605 (813) 241-6765

**Secondary** 

EQ of Florida 7202 East 8<sup>th</sup> Avenue Tampa, FL 33619

1-800-624-5302

# PREPAREDNESS, PREVENTION, CONTINGENCY PLAN, AND EMERGENCY PROCEDURES FOR DAILY BUSINESS OPERATIONS

#### GENERAL INFORMATION

#### Purpose

The preparedness, prevention, and contingency plan and emergency procedures are designed to ensure that Safety-Kleen reduces the possibility of emergency situations and, should they occur, respond in a manner to prevent or minimize hazards to human health or the environment from fire, explosion, or any unplanned sudden or non-sudden release of hazardous material constituents to the air, soil, surface water, or ground water at the facility.

The provisions of the plan are to be carried out immediately if there is a fire, explosion, or release of hazardous materials that could threaten human health or the environment. All responses must conform with the procedures contained in this plan.

#### General Description of Activities

The business activities conducted at the Tampa Branch relate to the leasing and servicing of Safety-Kleen Parts Cleaning Equipment, including the provisions of a solvent leasing service for the customers. Clean solvents are distributed from, and the used solvents returned to, the Branch, where separate storage tanks are utilized for the storage of clean and used parts washer solvent. One 15,000-gallon fresh parts washer solvent storage tank currently is utilized at the facility. In addition, a 15,000-gallon tank is used to contain used parts washer solvent, a 15,000-gallon tank is used for storage of Used Oil. Warehouse space is designated for the storage of containers of both clean and used immersion cleaner, parts washer solvent, paint waste, Fluid Recovery Services (FRS) wastes, and dry cleaning wastes. Overpack containers are used for the management of containers whose integrity has been compromised.

Parts washer solvents are transported in covered containers between the Branch and customers. Upon returning to the Branch, the used parts washer solvent is transferred from the containers into a wet dumpster (solvent return receptacle) in which coarse solids in the parts washer solvents are retained. Used parts washer solvent from the wet dumpster flows into a 15,000-gallon aboveground tank for storage. Used parts washer solvent is picked up regularly by a bulk tank truck from a Safety-Kleen recycle facility which at the same time delivers clean parts washer solvent. The sludge in the wet dumpster is regularly cleaned out, containerized, and stored as Branch generated waste in a permitted waste storage area for later shipment to a Safety-Kleen recycle facility for reclamation or disposal.

The immersion cleaner remains in a covered container at all times during transportation and storage. The solvent is not transferred to another container while being used by the customers or while in storage at the Branch.

Dry cleaning wastes are picked up at commercial dry cleaning establishments in containers. Dry cleaning wastes handled by Safety-Kleen consist of spent filter cartridges, powder residue from diatomaceous or other powder filter systems, and still bottoms, all of which fall into the categories of either perchloroethylene-based waste or naphtha-based waste. The dry cleaning wastes are packaged on the customer's premises in containers.

All antifreeze collected and managed by Safety-Kleen within Florida is recycled. At the customer's location, Safety-Kleen pumps waste ethylene glycol (antifreeze) into a Safety-Kleen used oil tanker truck. The used antifreeze/oil mixture is transported from the customer site to the branch, or Bidsite for storage until transport to the SK East Chicago, Indiana re-refinery. There the used antifreeze is separated using distillation and sent to a recycling facility for reprocessing into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's Best Management Practices for Managing Used Antifreeze at Vehicle Repair Facilities, dated April, 2011.

Safety-Kleen also provides a paint waste reclamation service. Wastes containing various thinners and paints are collected in containers and are stored at the south building permitted storage area. Paint wastes are received at the Branch on manifests which are terminated at that point. These wastes are then re-manifested and shipped to a reclaimer, and the regenerated solvent may be distributed to Safety-Kleen customers for use as a product.

The FRS wastes are packaged in polyethylene or steel containers which are not opened until they reach a recycle center. The FRS wastes are transfer wastes and may be stored onsite for up to 10 days. The FRS wastes may also undergo branch-to-branch or truck-to-truck transfer. This transfer will occur at the return/fill station inside secondary containment.

The waste products exhibit essentially the same biological, physical, and chemical properties as the fresh product. Used products are basically fresh products with impurities of dirt and metals. Material Safety Data Sheets (MSDSs) for each hazardous material are available at the Branch and on demand by fax through a company-owned MSDS information service. This service provides 24-hour phone or fax access to an extensive MSDS database.

The Branch is registered in Florida as a transporter and storage facility for mercury-containing lamps and devices destined for recycling. This registration includes a commitment to comply with the requirements of Florida Administrative Code (FAC) 62-737.400. As a registered storage facility, the Branch can store up to 2,000 kilograms of lamps/devices for a period of up to 180 days. Safety-Kleen provides customers with empty four-foot and eight-foot boxes which hold up to 39 lamps. Boxes containing lamps are picked up from customers and are handled at the at the Branch as nonhazardous transfer wastes. The boxes are stored at the Branch in a designated area within the transfer waste storage area. This storage area is labeled in accordance with FAC 62-737.400(5)(b), and is partially isolated from other transfer wastes to avoid potential for accidental breakage. The boxes are periodically shipped to a permitted mercury recovery or reclamation facility. Prior to shipment out of the Branch, the boxes are placed on pallets and shrink-wrapped with plastic.

Figures 5.1-1 and 5.1-2 show the basic site and floor plans and the locations of waste management facilities and facility storage. Table 5.1-1 provides a list of permitted and transfer wastes handled at the facility.

#### INSPECTION PROCEDURES

#### Inspection of Safety Equipment

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of emergency and spill control equipment to ensure proper operation, and to maintain compliance. Table 5.2-1 is an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspection in accordance with the following procedure and schedule.

- A weekly inspection of fire extinguishers must be performed to ensure that the tag date
  has not expired and the units are properly charged and accessible.
- A weekly inspection of eyewash stands must be performed to assure accessibility; check
  for proper operation of this equipment on a monthly basis. Inventory of the first-aid kit
  must be checked on a weekly basis.
- A weekly check of the supply of spill control equipment (absorbent material) must be performed.
- A weekly check of the conditions and inventory of other emergency equipment will be made. This includes gloves, aprons, goggles, respirators, and other personal protective equipment.

## Inspection of Security Equipment

The Branch Manager or designee, using the Weekly Inspection Log (Figure 5.2-1 or similar), inspects the security features of the facility weekly (e.g., gates and locks), looking for any evidence of sticking, corrosion, or unusual activity. The facility fence will be checked weekly for deterioration, gaps, and broken wire ties.

## Inspection of Waste Management Facilities

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. Table 5.2-1 provides an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Daily inspections of aboveground tanks will include the following:

- Note volume in tank.
- Observe tank exterior for loose anchoring, wet stops, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in
  the tanks to confirm the proper functioning of the automatic alarm system and to
  determine unexpected deviations in tank measuring data, or a sudden drop in liquid level,
  which may indicate leakage.
- Inspect secondary containment walls and piping.

- Inspect transfer pumps for leaking seals and overheated motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for proper seat. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

Daily inspections of the container storage area include the following:

- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection.
- Verify that all container identification, dates, and hazardous waste labels are attached and current.
- Inspect container placement and stacking such as aisle space, height, and stability of stacks.
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

#### Corrective Action

Any discrepancies or deficiencies found during routine inspections will be recorded in the inspection log and brought to the attention of a supervisor. At this time an evaluation of the seriousness of the problem will be noted and a decision made if the situation requires immediate action or the problem can be handled as routine maintenance. The evaluation of the seriousness of the problem will be recorded in the facility's inspection log. If the problem poses a threat to human health or the environment, action will be taken immediately. The Branch Manager has the overall responsibility for resolving any discrepancies found during the routine inspection.

#### **EMERGENCY NOTIFICATION**

## **Emergency Coordinator**

The Branch Manager or designee is the emergency coordinator. Page iii at the beginning of this section includes the names, home addresses, and both office and home phone numbers of the primary emergency coordinator and alternate. At least one employee will be either present on the facility premises or on call with responsibility for coordinating all emergency response measures at all times. This primary emergency coordinator and alternate emergency coordinator are thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of materials handled, the location of all records within the facility, and the facility layout. In addition, these coordinators have the authority to commit the resources needed to carry out the contingency plan.

## EMERGENCY RESPONSE AGENCIES AND TEAM MEMBERS

The agencies and response team members to be notified whenever an imminent or actual emergency occurs are presented on page iii, located at the beginning of this plan.

#### ACTIONS OF THE EMERGENCY COORDINATOR

Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately:

- a. Notify all facility personnel present of the emergency. The relatively small size of this facility makes direct verbal communication the most expedient form of emergency notification. The emergency coordinator may also elect to proceed to the front of the building and repeatedly sound a car horn to notify building occupants of an emergency. A head count will be performed by the emergency coordinator.
- b. Notify appropriate state or local agencies with designated response roles if their help is needed.
- c. Summon the primary emergency coordinator, if that person is absent.

Whenever a release, fire, or explosion occurs, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. Because of the limited types of chemicals in storage, the identification processes can easily be performed visually.

#### Procedure for Assessing Possible Hazard to the Environment and Human Health

After identification of the character, source, amount, and extent of a release, fire, or
explosion, the emergency coordinator must decide whether the situation can be contained
or cleaned up by plant personnel and equipment.

- If a fire or explosion is determined uncontrollable by plant personnel or threatening neighboring establishments or population, assistance from a local emergency response agency shall be summoned immediately and an evacuation order requested.
- In case of a release outside of the containment area that is deemed immediately uncontainable or unrecoverable, the local emergency response agency and/or specialty cleanup contractor shall be called in.
- After termination of a fire or explosion or containment and preliminary cleanup of a spill, evaluate whether residues in the form of gas or liquid have become airborne, seeped into ground water, and/or flowed into surface water bodies.
- Expert assistance should be requested to determine whether the escaped materials are
  potentially harmful and whether the receiving medium ultimately will be a populated
  area, public water supply source, a private well, or an environmentally sensitive area.
- Additional steps shall then be taken to mitigate the potential impact on the environment and human health, in accordance with expert recommendations.

If the emergency coordinator determines that the facility has had a release, fire, or explosion or other emergency that could threaten human health, or the environment outside the facility, the coordinator must report those findings, as follows:

- If the assessment indicates that evacuation of local areas may be advisable, the coordinator must immediately notify appropriate authorities. The coordinator must be available to help appropriate officials decide whether local areas should be evacuated.
- The coordinator must immediately notify the State Warning Point at (850) 413-9911 (24 hours).
- The coordinator must immediately notify the Southwest District of the FDEP, (813) 632-7600 during regular business hours, or the National Response Center (800) 424-8802, by telephone.

#### The report must include:

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

Immediate assistance in assessing and responding to an emergency is obtained by the emergency coordinator by calling the 24-hour Safety-Kleen emergency number ((800) 468-1760). The 24 hour emergency number identified as Infotrac is a vendor contracted by Safety-Kleen to respond to all reports of spills or chemical emergencies. All Safety-Kleen facilities in the state use this contractual arrangement with Infotrac. This allows Safety-Kleen to respond to any emergency with a maximum of effort, thereby reducing the threat to human health or the environment.

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

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

- No waste that may be incompatible with the released material is treated or stored until cleanup procedures are completed; and
- All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

The owner or operator must notify the appropriate state and local authorities that the facility is in compliance with the requirements of the preceding paragraph, before operations are resumed in the affected area(s) of the facility.

The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner

must submit a written report on the incident to the Southwest District of the FDEP, at 13051 North Telecom Parkway, Temple Terrace, FL 33637. The report must include:

- 1. Name, address, and telephone number of the owner or operator;
- 2. Name, address, and telephone number of the facility;
- 3. Date, time, and type of incident (e.g., fire, explosion);
- 4. Name and quantity of material(s) involved;
- 5. The extent of injuries, if any;
- 6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- 7. Estimated quantity and disposition of recovered material that resulted from the incident.

#### POTENTIAL SPILL SOURCES

The following is a list of activities that have the potential for a small scale (less than 55 gallons of waste) pollution incident.

1. Moving of containers.

Every time a container is moved, the possibility exists that it could tip over or be dropped. To minimize the possibility of spillage of solvent under those conditions, all container lids must be secured before the container is moved.

- 2. Delivery truck container transfers.
  - a. Individual delivery containers hold from 5 to 55 gallons of waste, a quantity which can be contained by oil sorbent clay or pads, if accidentally spilled.
  - b. Each vehicle is equipped with a hoist and hand cart for ease of moving clean solvent containers off the truck and into the customer's shop and returning the dirty solvent containers to the truck.
  - c. Lids are secured on containers during movement to prevent a spill.
  - d. Each truck contains a complete spill kit, shovel, and a quantity of sorbent material to contain minor spills.
  - e. The cargo must be secured in the route vehicle before transit.

#### Spills Inside Buildings

In the event of a spill indoors, the doors and windows should be opened to improve the ventilation in the confined area. Following the instructions of the Material Safety Data Sheet (MSDS), a worker would enter the area wearing rubber gloves, boots, and respirator, and mop up the liquid and return it to dirty storage. The cleanup is completed only when the workers have cleaned themselves and the emergency equipment with soap and water.

#### Spills on Concrete Pads

Concrete pads in loading and unloading areas are, in most cases, equipped with secondary containment. Under most spill conditions, product can be totally contained on the concrete surface and in the containment system. Upon containment, arrangements must be immediately undertaken to recover the material. Any soil that may be involved must be removed and handled in the same manner as the material spilled.

#### Tank Spills or Leakage

Aboveground tanks are underlain by a concrete slab and surrounded by a concrete dike to contain any spilled or leaked solvent. The containment system has been sized in accordance with the regulations, and the product will be totally contained under most spill conditions. Should a spill occur, arrangements must be immediately undertaken to recover the material. In the event of leakage, tank repair or replacement will be initiated. Any soil that may be involved must be removed and handled in the same manner as the material spilled.

#### Spill Control Procedures

#### If a harmful discharge occurs:

- 1. Stop the discharge, if possible, by immediately transferring the liquid to a good container.
- 2. Retain, contain, or slow the flow of the material, if possible, by diking with sorbent pad or dirt. Based on the seriousness of the incident, the emergency coordinator will select the level of personal protective equipment required to address the incident. Pump and mop up the liquid from the floor into a good container and return the container to storage for subsequent shipment to a Safety Kleen recycle center for reclamation/disposal. The area and equipment that comes in contact with the spill must be decontaminated with soap and water. All residues resulting from containment and decontamination should be collected for proper disposal.
- 3. If the material escapes the containment efforts, immediately call the cleanup contractor with response time less than two hours (page iii). Record the date, time, and name of person taking the message. Call the primary emergency coordinator, if that person is absent.

4. Immediately recover spilled solvent to reduce property and environmental damage using the emergency and safety equipment stored onsite for such situations (Figure 5.6-1 and Table 5.6-1), or call in emergency response contractors (page iii). Start recovery operations immediately.

After recovery of spilled solvent, wash all contaminated impervious surfaces and equipment with soap and water. The residue of spill- or fire-contaminated soils and waste waters must be removed and disposed of at a Safety-Kleen recycle center. In addition, the recovered solvent will be sent to a Safety-Kleen recycle center for reclamation.

- 5. Report any incident as soon as possible to the 24-hour Safety-Kleen emergency line ((800) 468-1760). If a representative of Safety-Kleen's Environmental Department does not respond within 30 minutes, the emergency coordinator should call the State Warning Point ((850) 413-9911), or the National Response Center ((800) 424-8802).
- 6. The person reporting a spill should be prepared to give their name, position, company name, address, and telephone number. The person reporting also should give the nature of the material spilled (e.g., immersion cleaner, etc.) and, if possible, some estimate of the amount, and whether it is near a stream or could enter a stream by flowing through ditches or storm sewers.

If assistance is needed, the emergency coordinator should describe the containment status and specify any additional equipment needed. When reporting a spill, record the date and time of the call and the name of the person answering the call at the above number.

Spill prevention plans are reviewed with facility personnel every year, and records of the training are kept at the facility.

Information on every spill must be entered into Safety-Kleen's internal reporting system. A notification of each spill will be sent to the Corporate Environment Health and Safety Department.

Reports of emergency incidents will be transmitted to the Secretary of the FDEP or designee within 15 days of occurrence. This report shall include:

- 1. Name, address, and telephone number of the owner of operator;
- 2. Name, address, and telephone number of the facility;
- 3. Date, time, and type of incident (e.g., fire, explosion);
- 4. Name and quantity of materials involved;
- 5. The extent of injuries, if any;
- 6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- 7. Estimated quantity and disposition of recovered material that resulted from the incident.

#### Containment Systems

#### Containerized Wastes

Containers are stored in the container storage areas. The storage areas are totally contained by a concrete floor, berms, and trenches (Figure 5.6-3). The containment system is maintained.

Containers are stored on pallets whenever possible. The floor does not have intentional sloping. Any small spill that might occur would puddle where it was spilled. The spilled material would be cleaned up where it puddles or be manually directed to the containment trench. In the event that a large spill were to occur, some dispersion would be expected to occur based on the direction, force, and pathway obstacles presented by and to the spill. The trenches would intercept and capture liquid exiting the only openings in the berms (curbing). The containment trenches in the southernmost container storage area are connected to the external containment area located south of the fire water tank. Outside the containment areas the wastes would flow onto the concrete surfaces. These are the same concrete surfaces that serve to protect soils and ground water from contamination due to spills occurring during loading/unloading. The concrete areas around the loading docks have no intentional slope. Again, small spills would puddle, while larger spills could be manually directed to the containment trenches.

In the container storage area, containers are handled with a fork-lift and/or a hand-truck free of sharp points and stacked by hand. Every time a container is moved, the possibility exists that it will be tipped over, dropped, or punctured. To minimize the possibility of spillage, container lids are secured and containers are kept in an upright position. A small portable electric pump is available to quickly transfer the liquid from any leaking container into a safe container. Each route truck is equipped with a lift gate or an electric hoist. The appropriate device is used in the loading/unloading operation to minimize chances for spillage and/or employee injury. Containerized wastes at the Tampa facility are loaded/unloaded in the vicinity of the contained concrete dock on the eastern side of the building (Figure 5.1-2) and return/fill dock. The return/fill dock is completely enclosed within secondary containment and the docks on the eastern side of the building have containment trenches below the loading/unloading area sufficient to hold the capacity of containers handled in that area.

Because these areas are fully enclosed, spills originating in these areas should not come in contact with stormwater.

All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. All spills of small quantities of waste that occur onsite will be cleaned up immediately through the use of hand-held electric pumps, mops, wet/dry vacuums, or sorbent materials, should a spill occur. Any spilled waste is contained for offsite recycling/reclamation.

All containerized waste movement is performed manually, by a pallet jack, or propane-fueled forklift truck. Therefore, power outages are not expected to threaten employee safety.

#### FRS Wastes and Transfer Wastes

Flammable transfer wastes will be stored in the flammable container storage area and non-flammable transfer wastes will be stored in the south building container storage area. The containment system in the warehouse is maintained and is sufficiently impervious to prevent seepage into and through the concrete. Since FRS wastes are transfer only, they are not required to have containment. Because these areas are fully enclosed, spills originating in these areas should not come in contact with stormwater.

All containers are covered during movement and are located within diked, concrete floored areas to contain any potential spill. The small quantities of waste onsite at any time can be cleaned up immediately through the use of hand-held electric pumps, mops, wet/dry vacuums, or sorbent materials, should a spill occur. Any spilled waste is contained for offsite recycling/reclamation.

#### Return/Fill Station

The return/fill station (Figure 5.6-4) is a roofed, grated dock with concrete pads and curbing. Sloping of the containment area is essentially non-detectable. However, there is a slight slope toward the sump. Drive over curbing is present beyond the grating on the west and east sides so that delivery trucks can be positioned in a containment area during loading/unloading. Any spill which occurs on the concrete floor is directed by gravity into the sumps. Any residual remaining

material can be cleaned up with mops, wet/dry vacuums, or sorbent materials, should a spill occur. Spilled waste is contained and sent for recycling/reclamation. Any spills which occur on the concrete are cleaned up and the area decontaminated. The decontamination process should result in *de minimus* amounts of residue remaining. The areas just outside the service building return/fill station are asphalt covered, thus preventing direct contact with soils and ground water.

#### Tank Area

The tank area (Figure 5.6-5) houses three 15,000-gallon tanks and is provided with secondary containment. The foundation slab is essentially flat, but has a shallow drainage trench next to the perimeter walls. This trench leads to a sump in the southwest corner of the tank farm. Tank loading/unloading connections are located within the containment system on the east side of the tank farm. A drip pan is present under these connections. Any tank leaks or unloading spills will be within the containment system or the drip pan and can be readily removed by pumping from the sump or by wet vacuum.

Tankers used for offloading/loading park on the asphalt paving east of the tank area. Any leaks or spills at the tanker connections will be removed by absorbent material or wet vacuuming.

Employee training emphasizes the importance of inspection, maintenance, personal safety, and reporting of conditions with pollution incident potential. This training, coupled with the Safety-Kleen's containment system and immediate cleanup of any spills, will eliminate or greatly minimizes the chance of contamination of ground water and/or surface water in the vicinity of the site. In addition, a fabric cover has been installed over the tank farm to reduce the possibility of precipitation entering the containment area. Surface run-off at the site does not come in contact with stored products in the waste management area.

#### **DECONTAMINATION**

Once the spilled material has been cleaned up, the spill area and equipment used during the spill clean-up must be decontaminated and/or disposed, as described below.

#### Concrete Surfaces/Containment Area

- Concrete surfaces/containment areas will be cleaned with a detergent solution and then
  rinsed with hot water. The rinsate will be collected via wet vacuums and placed in
  containers. Visual inspection will be used to determine the success of the
  decontamination procedure.
- The intent of the surface decontamination is to prevent current or future releases of materials to the environment. Vigorous cleaning with detergent is sufficient to prevent releases to the environment during normal operations. Potential for hazards from residual materials to future occupants of the facility are addressed in the closure plans for the facility and the decontamination procedures incorporated therein.

#### **Equipment**

The equipment used to clean the area includes mops, pails, scrub brushes, and a wet/dry vacuum. Equipment which is considered reusable (i.e., pails, wet/dry vacuum, hoses) will be washed with detergent, and wash water and rinsate will be collected for proper disposal. All non-reusable equipment and/or equipment which is not capable of being decontaminated will be containerized and disposed of as hazardous waste.

#### Wash Water and Rinsate

If the rinsate or other wastes generated in the clean-up process is determined to be hazardous, it will be properly disposed of as a hazardous waste; otherwise, the material will be disposed of as an industrial waste. It should be noted that wash water and rinsate will not be allowed to drain to soil or surface waters.

#### EMERGENCY RESPONSE EQUIPMENT AND COMMUNICATION

Due to the small size of the facility, routine communication will be accomplished by voice communication or intercom. Emergency alarms are available at the tank farm and return/fill station. Telephones are used in case of a spill or fire emergency to summon assistance. Emergency numbers are posted by phones throughout the facility. Included with these phone numbers is the 24-hour Safety-Kleen spill number. Figure 5.6-1 provides the locations of fire extinguishers, first-aid kits, and emergency eyewashes. Other emergency response equipment (Table 5.6-1) is kept inside the door leading to the return/fill station. In the south building, emergency spill equipment is kept at the north end of the eastern set of loading/unloading docks. This equipment includes mops and buckets, soap, shovels, and spill sorbent pads. Rubber gloves, boots, pumps, and a wet/dry vacuum cleaner are stored in an emergency supply area near the south container storage area. Descriptions and uses of the equipment are provided in Table 5.8-1. Adequate aisle space is provided in the container storage area for movement in an emergency situation.

Pails, hoses, and detergents are the primary equipment that will be used for decontamination. The equipment available at the facility for emergency situations is adequate for most cases. Large or serious emergency situations will be remediated by local emergency response teams or special emergency response or cleanup contractors. The facility is constructed and operates in accordance with National Fire Protection Association (NFPA) standards and applicable local

ordinances. Applicable health and safety standards are also observed at the facility.

#### FIRE CONTROL PROCEDURES

In the event of a fire at the facility, the following activities will be executed.

Call the Fire Department. [Note: Center aisles are available in container storage areas to permit fire department personnel to pass with fire fighting equipment.]

Act quickly if possible with the fire extinguisher to put out the fire before it spreads. A fire suppression system is available at the facility. The system is supplied from an on-site well. The well water is pumped to a storage tank located outside the west wall of the south building. The fire suppression system is charged via a pump which is located adjacent to the water storage tank. The suppression system utilizes both water and foam. The sprinkler water from the flammable storage area (in the south building) is captured in a pipe which is connected to a trench in the flammable storage area and discharges to a containment area outside the southwest corner of the south building.

Call the Police Department and local hospital (page iii) when injury occurs, and/or the order of on-lookers and traffic is to be maintained.

#### Ignitable Wastes

All wastes and products are kept away from ignition sources--Personnel must confine smoking and open flames to remote areas, separate from any solvent (e.g., Outside front of facility). The parts washer solvent and paint waste handling areas are separated from the office area to minimize the potential for a fire to spread or injury to personnel to occur.

The tank farm is more than 20 feet from the property line. Likewise, the flammable storage area is 50 feet or more from the property line. Both of these distances meet the NFPA code for storage of ignitable materials.

Ignitable wastes are handled so that they do not:

- 1. Become subject to extreme heat or pressure, fire or explosion, or a violent reaction--The parts washer solvents and paint wastes are stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up. The tanks are under cover and painted white to reflect sunlight.
- 2. Produce uncontrolled toxic mists, fumes, dusts, or gases in quantities sufficient to threaten human health--The vapor pressure of petroleum based parts washer solvent is low (2 mm mercury) and it and the paint waste may react with strong oxidizers and reactive metals only. Toxic mists, fumes, and dusts do not form in quantities sufficient to threaten human health since strong oxidizers are not handled at this facility and the solvent vaporization is minimal under normal working conditions.

[Note: Drycleaning wastes are initially not flammable, but may produce toxic gases and hydrochloric acid at elevated temperatures (about  $1,200\Box F$ ).]

- 3. Produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion--See "1" above and "4" below.
- 4. Damage the structural integrity of the Safety-Kleen facility--The parts washer solvent and paint wastes do not cause deterioration of the tank, drums, or other structural components of the facility.

#### Incompatible Wastes

Incompatible wastes are segregated in an appropriate manner in accordance with industry standards. All waste or products are kept away from ignition sources. Employees must confine smoking or open flames to designated safe areas.

Materials are handled so they do not:

- a. Generate extreme heat or pressure, fire or explosion, or violent reaction.
- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health.
- c. Produce uncontrolled fires or gases in sufficient quantities to pose a risk of fire or explosion.
- d. Damage the structural integrity of the Safety-Kleen facility.

Adequate aisle space is maintained to allow unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the facility operation in an emergency.

#### **External Factors**

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel. Also, the container storage areas are in buildings which are inaccessible to unauthorized personnel.

- 1. Vandalism Only extreme vandalism would result in a solvent spill or fire. Responses to spills and fires are described in a previous section of this Plan.
- 2. Strikes A strike would not result in a solvent spill or fire.
- 3. Power Failure A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.

- 4. Flooding The waste management facility elevation is above the projected 100-year flood plain; therefore, a 100-year flood will not affect the facility.
- 5. Storms or Cold Weather The solvent return/fill station, tank storage, and the container storage areas are roofed to eliminate the possibility of rain entering the waste management areas. Neither snow, cold weather, nor stormwater is expected to affect the facility.

#### **EVACUATION PLAN**

In an uncontrolled emergency, all persons are to be evacuated from the area by means of a verbal cry or use of the public address system and are to assemble across the street from the entrance drive to the facility to assure that all personnel are accounted for and out of the area. The emergency coordinator may elect to use a car horn as a means of emergency notification. A head count will be performed by the emergency coordinator.

The Fire Department must be notified at the time of evacuation either from a safe onsite building or neighboring facilities.

Clearly marked exits exist in warehouse and office area.

## AVAILABILITY AND REVISION OF THE PREPAREDNESS, PREVENTION, AND CONTINGENCY PLAN

This Plan and all revisions to the Plan are kept at the facility and regularly updated throughout the operating life of the facility.

Copies of this document are provided to local authorities and organizations listed under the Preparedness and Prevention Plan, which may be called upon to provide emergency services.

This Plan and all revisions to the Plan are made readily available to employees working at the facility.

This Plan is reviewed and updated, if necessary, whenever:

- 1. The facility permit is modified to allow new process wastes to be stored or treated, or applicable regulations are revised;
- 2. The list or location of emergency equipment changes;
- The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that:
  - a. Materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or
  - b. Changes in response necessary in an emergency.
- 4. The names, addresses, or phone numbers of emergency coordinators change;
- 5. The employee assigned to each emergency task changes, or
- 6. The plan fails when implemented in an emergency.

#### ARRANGEMENTS WITH LOCAL AUTHORITIES

Arrangements have been made to familiarize the Police Department, Fire Department, and local emergency response teams with the layout of the facility, properties of hazardous materials handled (Material Safety Data Sheets) at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.

Potential primary and secondary spill control contractors are identified in this Plan.

Arrangements have been made to familiarize the local hospital with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which would result from fires, explosions, or releases at the facility.

Appendix A of this Plan (located at the end of this section) includes copies of example distribution letters for transmittal. Copies of updated transmittal letters are kept on file at the facility.

#### Appendix A

Example Letters to Local Authorities

(Date)	

#### HAND DELIVERED

Hillsborough County Fire Department 715 South 58<sup>th</sup> Street Tampa, FL 33619

RE: Safety-Kleen Systems, Inc. (316301), 5309 24th Avenue South, FL 33619

Dear Sir/Madam:

Under terms of the Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, Subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police and fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (813) 626-1203.

Sincerely,

Branch Manager Safety-Kleen – Tampa

Enclosures

(Date)
Hillsborough County Fire Department 715 South 58 <sup>th</sup> Street Tampa, FL 33619
Branch Manger Safety-Kleen Systems, Inc. 5309 24 <sup>th</sup> Avenue South Tampa, FL 33619
RE: Safety-Kleen Systems, Inc. (316301), 5309 24 <sup>th</sup> Avenue South, Tampa, FL 33619
Dear Branch Manager:
This is to acknowledge that the Hillsborough County Fire Department has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5309 24 <sup>th</sup> Avenue South, Tampa, FL 33619. The Hillsborough County Fire Department understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur.
This is to acknowledge receipt of the updated contingency plan information for the Tampa, Florida facility.
The Hillsborough County Fire Department (agrees/declines) to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5309 24 <sup>th</sup> Avenue South, Tampa, FL 33619.
Sincerely,
(Signature)
(Title)
Check here if you do not have a copy of the contingency plan for this SK facility.

(Date)

#### HAND DELIVERED

Hillsborough County Sheriff's Office 508 33<sup>rd</sup> Street SE Ruskin, FL 33570

RE: Safety-Kleen Systems, Inc. (316301), 5309 24th Avenue South, Tampa, FL 33619

Dear Sir/Madam:

Under terms of Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also, enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, Subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police and fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (813) 626-1203.

Sincerely,

Branch Manager Safety-Kleen – Tampa

**Enclosures** 

(Date)				
Hillsborough County Sheriff's Office 508 33 <sup>rd</sup> Street SE Ruskin, FL 33570				
Branch Manager Safety-Kleen Systems, Inc. 5309 24 <sup>th</sup> Avenue South Tampa, FL 33619				
RE: Safety-Kleen Systems, Inc. (316301), 5309 24th Avenue South, Tampa, FL 33619				
Dear Branch Manager:				
This is to acknowledge that the Hillsborough County Sheriff's Office has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5309 24 <sup>th</sup> Avenue South, Tampa, FL 33619. The Hillsborough County Sheriff's Office understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur.				
This is to acknowledge receipt of the updated contingency plan information for the Tampa, Florida facility.				
The Hillsborough County Sheriff's Office (agrees/declines) to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5309 24 <sup>th</sup> Avenue South, Tampa, FL 33619.				
Sincerely,				
(Signature)				
(Title)				
Check here if you do not have a copy of the contingency plan for this SK facility.				

(Date)

#### HAND DELIVERED

Hospital Administrator Brandon Regional Hospital 119 Oakfield Drive Brandon, FL 33511

RE: Safety-Kleen Systems, Inc. (316301), 5309 24th Avenue South, Tampa, FL 33619

Dear Sir/Madam:

Under terms of Environmental Protection Agency (EPA) regulations 40 CFR 264, Subpart D, Safety-Kleen Systems, Inc. (SK) must provide local police, fire departments, hospitals, and state or local emergency response teams with a copy of the contingency plan for the above-referenced facility, and any revisions to the plan. A copy of the updated contingency plan is enclosed for your files. Please review this updated contingency plan. Also enclosed are Material Safety Data Sheets (MSDSs) for materials handled at the facility.

EPA regulations 40 CFR 264, subpart C, require that SK attempt to make arrangements for the provision of emergency assistance. Emergency assistance for this facility may be needed from the police, fire departments, state emergency response teams, and hospitals. The completion and return of the enclosed form will acknowledge receipt of this update to the contingency plan and provides your agreement to be available for emergency assistance.

Thank you for your cooperation in this matter. Should you have any questions or desire to visit our facility, please contact me at (813) 626-1203.

Sincerely,

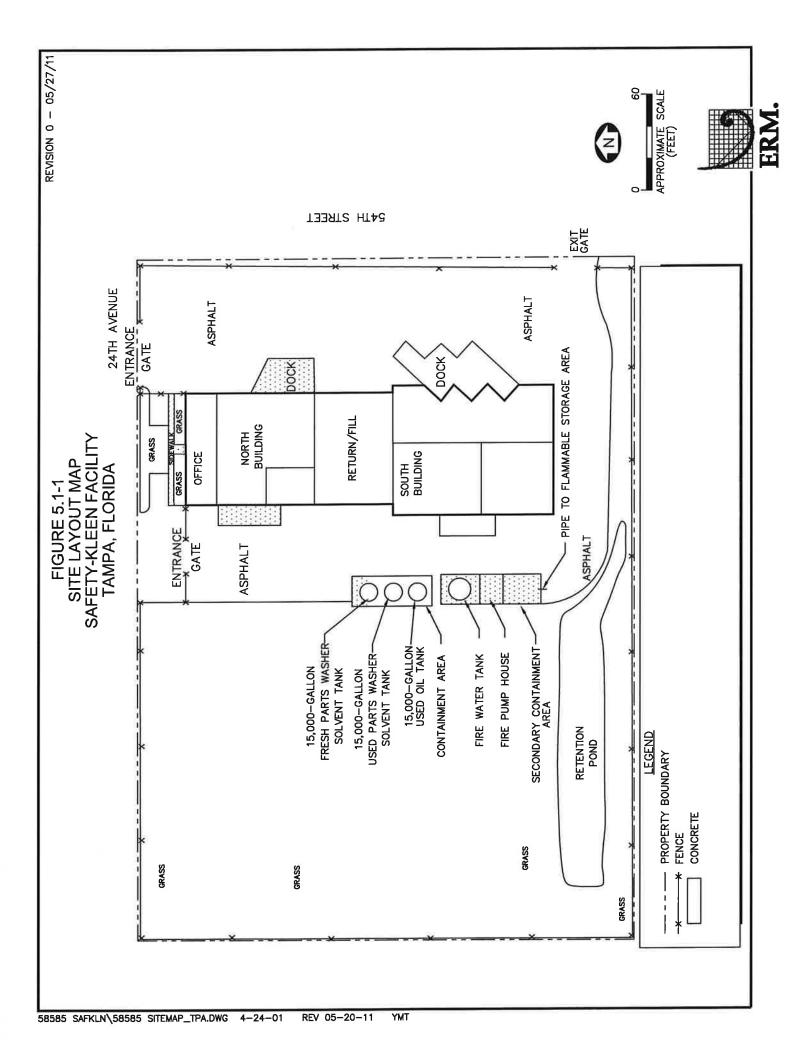
Branch Manager Safety-Kleen – Tampa

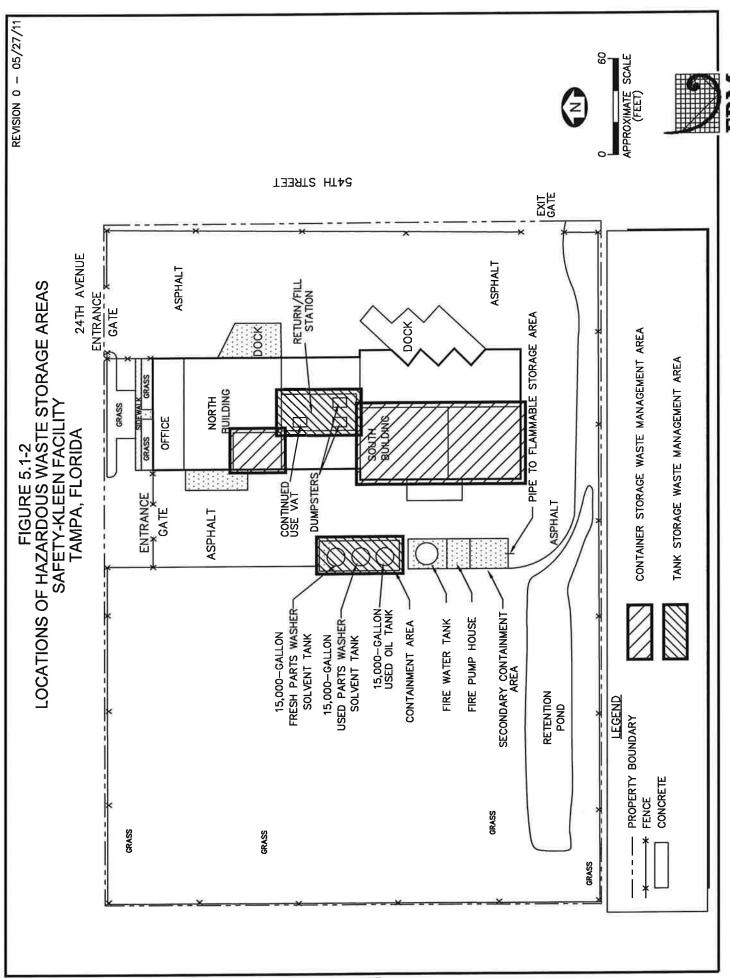
Enclosures

(Date) Hospital Administrator Brandon Regional Hospital 119 Oakfield Drive Brandon, FL 33511 Branch Manager Safety-Kleen Systems, Inc. 5309 24th Avenue South Tampa, FL 33619 RE: Safety-Kleen Systems, Inc. (316301), 5309 24th Avenue South, Tampa, FL 33619 Dear Branch Manager: This is to acknowledge that the Hospital Administrator, Brandon Regional Hospital, has been made aware of the potential need for emergency assistance associated with the operation of the Safety-Kleen Systems, Inc. (SK) facility at 5309 24th Avenue South, Tampa, FL 33619. The Hospital Administrator, Brandon Regional Hospital understands that the emergency coordinator is available to provide additional information on the nature of assistance that may potentially be required, type of physical and chemical hazards that may potentially be encountered, and the type of injury or illness that may potentially occur. This is to acknowledge receipt of the updated contingency plan information for the Tampa, Florida facility. The Hospital Administrator, Brandon Regional Hospital to be available to provide emergency assistance for the Safety-Kleen Systems, Inc. facility at 5309 24th Avenue South, Tampa, FL 33619. Sincerely, (Signature)

Check here if you do not have a copy of the contingency plan for this SK facility.

(Title)





# Daily Inspection Log Sheets Tampa, FL

Figure 5.2-1

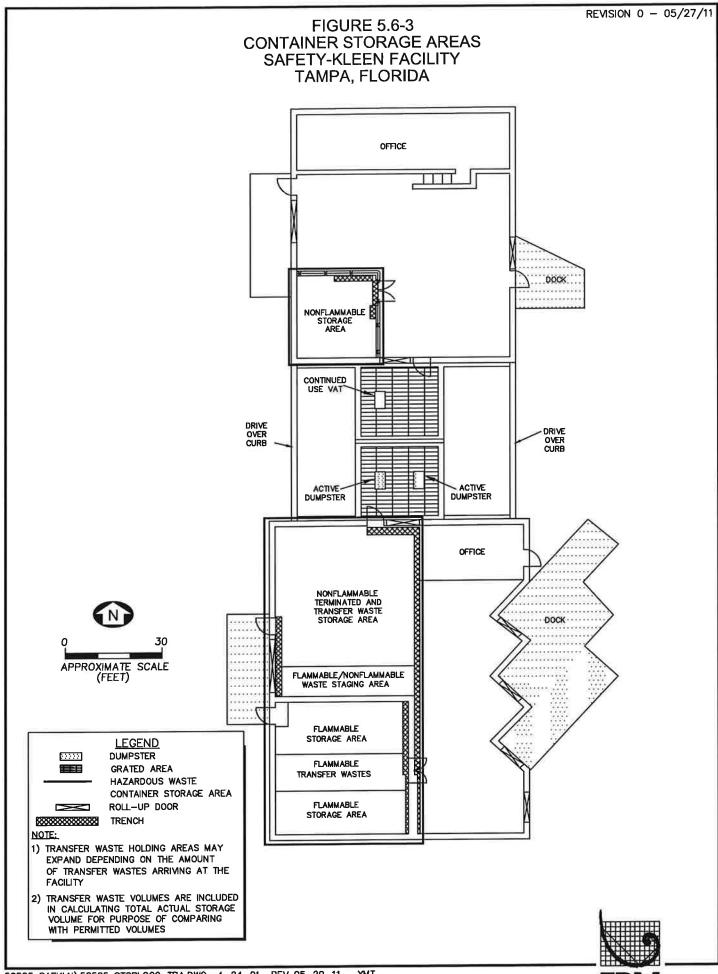
Revision Date: 01/19/2011

### INSPECTION LOG SHEET FOR DAILY INSPECTION OF GATES AND LOCKS

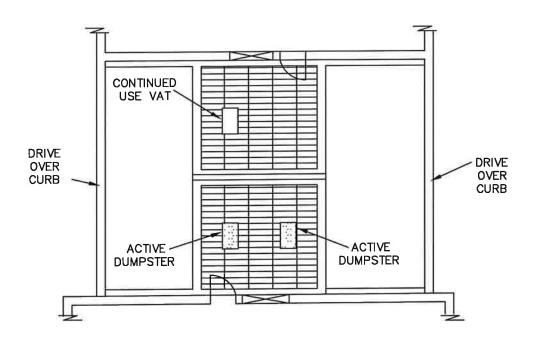
Check all gates and locks for security, sticking, corrosion, lack of warning signs or uncommon activity.

Day of Week	Date	Time	Status	Name
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday*				
Sunday*				

<sup>\*</sup> If employees are working or handling RCRA regulated materials or their storage units on Saturday or Sunday, a daily inspection must be completed.



#### FIGURE 5.6-4 RETURN/FILL STATION SAFETY-KLEEN FACILITY TAMPA, FLORIDA

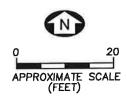


<u>LEGEND</u>

DUMPSTER

GRATED AREA

ROLL-UP DOOR





### TABLE 5.1-1 PERMITTED AND TRANSFER WASTES

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes
Spent Parts Washer Solvent	S01* S02**	813	D001 and D-Codes Listed in Note Below
Branch-Generated Liquids/Solids (Debris)	S01*	17	D001 and D-Codes Listed in Note Below; F001, F002, F003, F004, F005
Dumpster Sediment	S01*	Included Above	D001 and D-Codes Listed in Note Below
Tank Bottoms	S01*	Included Above	D001 and D-Codes Listed in Note Below
Used Immersion Cleaner (New Formula) IC699	S01*	28	D-Codes Listed in Note Below
Dry Cleaning Waste (Perchloroethylene)	S01*	350	F002 and D-Codes Listed in Note Below
Dry Cleaning Waste (Non- perchloroethylene)	S01*	Included Above	Transfer wastes - waste codes assigned by generator.
Paint Wastes	S01*	69	D001, F003, F005 and D-Codes Listed in Note Below
Fluid Recovery Service (FRS) Waste	S01 ***	250	Transfer wastes - waste codes assigned by generator.
Mercury-Containing Lamps/ Devices	N/A***	Less than 2.2	Not applicable - handled as nonhazardous transfer wastes.

#### **NOTES:**

D-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

- \* This waste will be stored in containers in the north or south building container storage area. The maximum capacity in the north area is 5,200 gallons. The maximum capacity in the south area is 12,749 gallons of flammables and 41,220 gallons of nonflammables.
- \*\* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled up to 14,250 gallons.
- \*\*\* This waste will be held for transfer in containers in the transfer area.

**TABLE 5.2-1** 

# INSPECTION SCHEDULE

Area/Equipment	Specific Item		Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	• • •	Overdue inspection Inadequately charged Inaccessible	Weekly
	Eyewash	• • •	Disconnected/malfunctioning values Pressure Inaccessible	Weekly
	First-Aid Kit	•	Inadequate inventory	Weekly
	Spill Cleanup Equipment	•	Inadequate supply of sorbent, towels, shovels, mops, empty drums	Weekly
	Personal Protection Equipment	•	Inadequate supply of aprons, glasses, respirators	Weekly
Security Equipment	Gates and Locks	•	Sticking corrosion, lack of warning signs	Weekly
	Fence	•	Broken ties, corrosion, holes, distortion	Weekly
Storage Tank System-	Volume in Tank	•	Must never be more than 95 percent full	Each operating day
Storage Tanks	Tank Exterior	•	Rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion	Each operating day
	High Level Alarms	•	Malfunctioning siren/strobe light	Each operating day
	Volume Gauges	•	Disconnected, sticking, condensation	Each operating day
Secondary Containment	Bottom and Walls	•	Cracks, debris, ponding, wet spots/stains, deterioration, displacement, leaks	Each operating day
	Rigid Piping and Supports	•	Distortion, corrosion, paint failures, leaks	Each operating day
	Self Closing Drain Valve	•	Open, leaks	Each operating day

**TABLE 5.2-1** 

# INSPECTION SCHEDULE

Transfer Pumps and Hoses  Motors  Fittings  Valves  Hose Connections and Fittings  Hose Body  Wet Dumnster	•		
		Leaks	Each operating day
	•	Overheating	Each operating day
	•	Leaks	Each operating day
	•	Leaks, sticking	Each operating day
	•	Cracks, loose, leaks	Each operating day
	•	Crushed, cracked, thin spots, leaks	Each operating day
	•	Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris	Each operating day
Secondary Containment	•	Excess sediment/liquid, leaks, deterioration, distortion, excess debris	Each operating day
Loading/Unloading Area	•	Cracks, pondings/wet spots	Each operating day
Container Storage Area Total Volume in Storage	•	Exceeds permitted limit	Each operating day
Condition of Drums	•	Missing or loose lids; labels missing, incomplete or incorrect; rust, leaks, distortion	Each operating day
Stacking/Placement/ Aisle Space	•	Containers not on pallets, unstable stacks, inadequate aisle space	Each operating day
Secondary Containment Curbing, Floor and Sump	• a	Ponding/wet spots, deterioration, displacement, leaks, other	Each operating day
Loading/Unloading Area	•	Cracks, deterioration, pondings/wet spots	Each operating day

TABLE 5.6-1
EMERGENCY RESPONSE EQUIPMENT

Description	Type/Capacity	Location	Quantity
Fire Extinguisher	ABC	Warehouses	10
Fire Extinguisher	ABC	Office Area	11
Fire Extinguisher	ABC	Tank Farm	1
Eyewash/Safety Shower	Fountain/Overhead	Warehouses	4
Shower		Office Area	11
First-Aid		Locker Rooms	2
Telephones	Standard	Manager's Office	Min. 2
Telephones	Standard	Secretary's Desk	Min. 1
Telephones	Standard	Warehouses	Min. 1
Gloves	Rubber	Emergency Equip. Area	Min. 3 pair
Boots (optional)	Rubber	Emergency Equip. Area	Min. 3 pair
Protective Clothing	Apron	Emergency Equip. Area	Min. 3
Eye Protection	Goggles/Safety Glasses	Emergency Equip. Area	Min. 3
Sorbent Material	Oil Absorbing	Emergency Equip. Area	Min. 1 bale
Shovel	Standard	Emergency Equip. Area	Min. 1
Mop and Bucket	Standard	Emergency Equip. Area	Min. 1
Respirator	Air Purifying	Emergency Equip. Area	Min. 2
Pump	Hand-held, Electric	Emergency Equip. Area	Min. 1
Wet/Dry Vacuum	Portable, Electric	Emergency Equip. Area	Min. 1
Mercury Decontaminant	HgX	Emergency Equip Area	Min. 2

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# **TABLE 5.8-1**

# DESCRIPTION AND USES OF EMERGENCY EQUIPMENT

Item	Location	Use/Description
Gloves	Locker Room/Emergency Equipment Area	The rubber or plastisol gloves sold by Safety-Kleen are to be used when handling the solvents.
Safety Glasses or Face Mask	Locker Room/Emergency Equipment Area	To be worn when loading or unloading solvent.
Plastic Aprons	Locker Room/Emergency Equipment Area	For situations where a solvent may get on the worker's clothing.
Eyewash Stand	Container storage area and return/fill station	The workers should operate the stand and become familiar with its operation.
Showers	Office to return/fill dock exit	These are used for emergency and routine cleaning of employees.
Fire Extinguisher	Points where solvent is transferred	An ABC extinguisher is a universal system used on paper, wood, and electrical, as well as solvent fires. The extinguishers must be full and carry an inspection tag. The accepted extinguisher is available as S-K Part No. 4009.
Absorbent Material	Loading/Unloading Area and Warehouse	An adequate supply will be on hand to handle small spills. S-K Part No. 8890 A 50-pound bag will also be kept in the warehouse to remediate and prevent the spread of large spills.
Air Purifying Respirator	Locker Room/Emergency Equipment Area	To be worn by any person entering an area or performing work where potentially harmful fumes are present or suspected to be present but are not considered to be immediately dangerous to life and health.
Portable Pumps Wet/Dry Vacuum	Warehouse	For use in picking up liquid spills in the container containment area, or other paved areas, and to transfer materials associated with a spill.
Recovery Containers	Warehouse	Emergency storage of spilled product, cleaning fluids, or other materials associated with a spill.
Plastic	Warehouse	To be used for containment of decontamination zones.
Duct Tape	Warehouse	Taping of protective clothing, containment plastic, and other miscellaneous uses.
First-Aid Supplies	Locker Room/Emergency Equipment Area	Minor first-aid needs and health problems.
Shovels and Mops	Warehouse	To be used to collect spills and spill residue.
Communication Equipment	Throughout the Facility	Six telephones with paging/loudspeaker systems are available in the office and warehouse for internal and external communications.
Decontamination Equipment	Warehouse	Two brushes, a box of detergent and cloth rags are available for decontamination of clean-up equipment.
Mercury Decontaminant (HgX)	Emergency Equipment Area	To be used to cleanup releases from mercury-containing lamps and devices.

#### PERSONNEL TRAINING

This section of the permit application describes Safety-Kleen's training program. All position descriptions referenced may not be present at this facility. Training plan outlines, job descriptions, training content, frequency and techniques are described as well as the implementation of the training program. The information presented in this section is a representative example of employee training at Safety-Kleen. Variations in individual training may occur.

The purpose of Safety-Kleen's training program is to familiarize employees with environmental regulations, records, and emergency procedures so they will perform their activities in the safest and most efficient manner possible.

### DESCRIPTION OF TRAINING PROGRAM

Each employee is trained to operate and maintain the service center safely, and to understand hazards unique to job assignments. New managers must complete a formal introductory training program before starting their jobs, with annual review and update thereafter. New Sales and Service Representatives and all other hazardous waste employees must undergo a combination of classroom and on-the-job training prior to working with hazardous waste. Personnel involved in direct handling of hazardous waste do not work unsupervised until they have completed the entire initial hazardous waste training course.

#### **Outline of Training Program**

An outline of the training program given initially to employees who manage or handle Hazardous at the Branch is presented in Table 6.1-1.

## Job Title/Job Description

Job descriptions for employees who would be expected to manage or handle hazardous Wastes are provided in Tables 6.1-2 through 6.1-11.

## Training Content, Frequency, and Techniques

Employee training is accomplished using classroom, online, videotape, written, and on-the-job methods. All new employees whose responsibilities require 24-Hour Hazardous Waste Operations and Emergency Response (Hazwoper) training will receive at least five days of instruction at the Safety-Kleen Training Center. This training program provides a consistent and quality hazardous waste operations training program.

The training that a new operations employee will receive is divided into two parts.

- The new employee will receive hazardous waste operations training (HAZWOPER), hazardous materials transportation skills (HMTS), and depending on their position either driver training essentials or branch technical training.
- The second part of new employee training is site specific training. When the new
  employee returns to the Branch, qualified individuals delegated by Branch
  management will complete facility specific training. This will include such
  things as permit requirements, emergency contingency plan training, location of
  emergency equipment, etc.

The job tasks a person performs will dictate the type of instruction required. Courses taught at the Safety-Kleen Training Center will include 24-hour Hazwoper training, Hazardous Materials Transportation Skill (HMTS) training, Driver Training Essentials. Sales personnel will attend Branch Technical Training.

The following presents the specific training requirements for new Safety-Kleen employees who will manage or handle hazardous waste.

Training of New Branch General Managers: New Branch Managers are trained for several weeks before they begin their new positions. This training is given on-the-job. During this training, the new manager reviews environmental records and learns the recordkeeping requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports. At least eight hours of this initial training consists of an introduction to environmental regulations, and a review of the hazardous waste permit, including the Waste Analysis Plan, Preparedness and Prevention Plan, Contingency Plan, Training Plan, and Closure Plan.

Training of New Customer Service Manager: The Customer Service Manager is responsible for administrative operations at the Branch. Training is on location in the form of periodic training topics. This training includes an introduction to environmental regulations (including the Resource Conservation and Recovery Act), health and safety issues, emergency response and inventory (including waste) reconciliation methods. Additional time is spent reviewing past environmental compliance at the facility. Also, while being trained at the Branch where they will be stationed, a new Customer Service Manager will review environmental records and learn the recordkeeping and inspection requirements. These records include: manifests, personnel records, training records, service center inspection records, and spill reports.

Training of New Secretaries: Secretaries are trained in the proper recordkeeping procedures as soon as they begin working for Safety-Kleen. While they are not usually responsible for preparing the documentation, they must check it for accuracy and completeness and then process or file it as required. Additional training is overseen by Branch Manager and is done within six months of starting. This training is often presented in periodic training topics on emergency response, shipping documents (including manifests), drum labels, and other safety and environmental compliance issues.

<u>Training of New Sales and Service Representatives, Market Sales Specialists:</u> These personnel are trained on-the-job for two weeks during which they are introduced to manifests, service center inspection records, and training records. Additional training is in the form of periodic training topics and a review of the Contingency Plan.

<u>Training of New Material Handlers:</u> A Material Handler is trained to maintain the service center and assist the other Branch employees in their tasks. The Material Handler may be a designee to perform Branch inspections and must be trained by the Branch Manager.

Annual Training: On an annual basis, employees are trained using the programs prepared and updated annually by the EHS and Training Departments which contain the topics in Table 6.1-12. This training also includes updates on environmental regulations, review of the Contingency Plan and a review of RCRA inspection criteria. This review is in the form of classroom instruction, videotapes, and a review and discussion of the storage service center permit/application. In addition, periodic sessions on changes in environmental regulations are issued by the EHS Department and must be attended by all Branch personnel.

#### Training Director

The training is directed by Safety-Kleen's Training and Development and EHS Departments, which operate out of the Corporate Office in Plano, Texas. Each Environmental Health and Safety Manager who works in this department is responsible for compliance of the service centers in a given geographic area of the country. The EHS Department, in coordination with the facility, must:

 Provide a training program which addresses the requirements of environmental regulations and corporate policy.

- Notify the proper authorities, oversee remedial actions, and submit a written report to the state after an emergency situation has occurred;
- Assure that environmental permits are submitted and updated as required;
- Manage any environmental compliance issues which exceed the resources available at the service center level; and
- Participate in training new Branch employees and conducting Annual Refresher Training.

Qualifications for individual staff members of the EHS Department who conduct training at the Branch are available upon request.

## Relevance of Training to Job Position

Each employee is trained to operate and maintain the service center safely and to understand hazards unique to their job assignment. Safety-Kleen's training programs are designed to give employees appropriate instruction regarding the hazardous waste management procedures they will encounter in performing their respective duties. Since the handling of hazardous materials is a large part of the operations of the service center, all employees are given training in environmental regulations, transportation regulations, the Preparedness and Prevention Plan, and the Contingency Plan.

### Training for Hazardous Waste Management

As described previously, all employees are trained in the aspects of hazardous waste management which are relevant to their position. This includes job-specific hazards and necessary precautions, emergency response, and proper recordkeeping. This training is given initially and updated annually.

## Training for Contingency Plan Implementation

All employees are trained in Contingency Plan implementation, through initial training, and yearly refresher courses, as summarized in Tables 6.1-1 and 6.1-12. Employees are trained on the contents of the Contingency Plan as well as criteria for implementation.

### Training for Emergency Response

All employees are trained in emergency response procedures through both initial training and yearly refresher courses, as summarized in Tables 6.1-1 and 6.1-12. The emergency training involves spill and fire prevention as well as remedial action procedures. Employees are also trained to recognize when evacuation and outside assistance may be necessary.

## Training for Handling Mercury-Containing Lamps and Devices

As a registered transporter and storage facility for mercury-containing lamps and devices destined for recycling, the Branch has certified that employees handling spent lamps or devices are trained in the applicable proper handling and emergency cleanup and containment procedures, and that these emergency procedures will be kept at the Branch for inspection upon request by the FDEP.

### **Personnel Training Records**

All personnel training is documented and the documentation is kept on file at the Branch until closure for active employees, and three years for employees that have terminated their employment with Safety-Kleen. Documentation includes the training received, employee name, and the date of training.

## **TABLE 6.1-1**

# **OUTLINE OF TRAINING TOPICS**

Day	Topic	SK Course Name
Monday	Welcome / Introductions/Ground Rules	Driver Training Essentials
	Driver Qualifications	
	Driver Wellness	
	Whistleblower Protection	
	Hours of Service Regulations	
	Exempt Log Training	
	Pre & Post Trip Inspections	
	Load Securement	
	Vehicle Cone Program	
Tuesday	Welcome / Introductions/Ground Rules	HAZWOPER
Tucsday	Regulatory Compliance	
	Hazard Recognition	
	Hazard Communication	
	Respiratory Protection	
	Respiratory Protection	
Wednesday	Walking & Working Surfaces	HAZWOPER
-	Patriot Act For Employees	
	Personal Protective Equipment	
	Decontamination	
	Toxicology	
	Medical Surveillance	
	Hearing Protection	
Thumdan	Ergonomics	HAZWOPER
Thursday	Fire Prevention & Protection	TIAZ WOI EK
	Lockout/Tagout Awareness	
	Electrical Safety	
	Confined Space Awareness	
	Container Handling	
Friday	Introduction	Hazardous Materials Transportation Skills (HMTS)
	Definitions	
	D.O.T. Regulations	
	Hazard Classes	
	Hazardous Materials Table	
	Shipping Papers	
	Marking	
	Labeling	
	Placarding	
	Hazardous Materials Segregation	
	Packaging	
	Incidents	

Day	Topic	SK Course Name
Friday (cont'd)	Load Securement	HMTS (cont'd)
Saturday	RCRA Regulations	Branch Technical Training
	Waste Material Profiling	
	Sampling Hazardous Materials	
	Shipping HazMat Samples via ground	

## **Job Description**

Job Title: Branch General Manager
Department: Branch Sales & Service

Reports To: District Manager

FLSA Status: Exempt SVP HR Approved Date: 01/29/07

**Summary:** The Branch General Manager is responsible for financial and operational management including: financial performance against quota or budget (P & L), EH&S compliance through the Environmental Management System (EMS), and operational management of the facilities and of the human resources.

## Essential Duties and Responsibilities include but are not limited to the following.

- Manage the branch operations including hiring, training, and supervision of the staff.
- Manage sales and service staff in achieving customer retention, on-time service performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical service skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-alongs with sales and service staff to ensure timely and effective servicing of customers' equipment.
- Profit or loss of the facility(ies) by focusing on building new business relationships and maintaining existing customer bases and satisfaction.
- Prepare branch sales/service forecast and budget.
- Ensure compliance with all applicable environmental, health, and safety (EHS) requirements
  by working with corporate EHS resources to keep all training and record keeping up to date,
  and by monitoring daily operations to assure performance is within regulatory guidelines.
- Maintenance of branch fleet to company standards, assistance with branch incident alert and spill response systems, and control of branch inventory.
- Maximize collection of money at the time of service, collect on overdue accounts, and determine when to pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

#### **Supervisory Responsibility:**

The Branch General Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, corrective action and termination.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Education and/Or Experience:** Minimum of High School diploma or (GED). Bachelor's degree preferred. At least 5 years experience in a sales and service organization.

**Certificates, Licenses, Registrations:** Class B CDL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit for long periods of time, use the computer, as well as occasionally lift up to 25 pounds. There will also be some occasional need for bending, kneeling, or reaching.

**Work Environment:** While performing the duties of this job, the employee has some exposure to warehouse as well as outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat.

## Job Description

Job Title:

**Customer Service Manager** 

Department:

**Branch Services** 

Reports To:

Branch General Manager

FLSA Status: Approved By:

Exempt

Approved By:

SVP HR 01/29/07

**Summary:** The Customer Service Manager is responsible for ensuring optimum customer service leading to retention and expansion of the branch business. Key responsibilities include supervising customer service staff, ensuring services are completed in a timely manner, and managing customer relationships.

## Essential Duties and Responsibilities include but are not limited to the following.

- Manage the branch customer service functions including hiring, training and supervision of the sales and service representatives (SSR).
- Manage sales and service staff in achieving customer retention, on-time service performance, and accounts receivable goals by: observing corporate operating guidelines, training and reinforcing critical service skills, and working to prevent and resolve customer service issues.
- Conduct inspections and ride-alongs with sales and service staff to ensure timely and effective servicing of customers' equipment.
- Direct branch service scheduling and logistics to ensure on-time performance for all customers by aligning territories, defining routes, and managing associated paperwork.
- Ensure SSR compliance with all applicable environmental, health, and safety (EHS)
  requirements by working with corporate EHS resources to keep all training and record
  keeping up to date, and by monitoring daily operations to assure performance is within
  regulatory guidelines.
- Work with Branch General Manager (BGM) to ensure effective operation of the branch including maintenance and operation of branch fleet to company standards, assistance with branch incident alert and spill response systems, and control of branch inventory.
- Administer branch accounts receivable program to maximize collection of money at the time
  of service, collect on overdue accounts, and determine when to pull an account.
- Ensure that all branch customer service practices are conducted consistent with high ethical standards.

#### **Supervisory Responsibility:**

The Customer Service Manager recommends hiring, training, scheduling, performance appraisal, promoting, compensation, and termination.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED). 3-5 years experience and/or related training.

**Certificates, Licenses, Registrations:** Class B CDL, Haz Mat, Air Brakes and Tankers endorsement.

**Physical Demands:** While performing the duties of this job, the employee must frequently stand, walk, bend, use the computer, reach, squat, stoop and twist. The employee must frequently carry, lift, pull or push up to 50 pounds. The employee will occasionally drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to warehouse and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; extreme cold; extreme heat.

## Job Description

Job Title:

MSS

Department:

Sales

Reports To:

District Sales Manager

FLSA Status:

Exempt

Approved By:

SVP HR

Approved Date: 01/29/07

**Summary:** The MSS will continually manage an account base outside of the ordinary service schedule. This position will also grow business internally and externally. The MSS will act as the primary point of contact for customers with questions / concerns / new business. This should be a motivated person who possesses consultative selling abilities and who is skilled at building long-term business relationships within the assigned sales territory.

#### Essential Duties and Responsibilities include but are not limited to the following.

- Completion of necessary paperwork (waste profiling, quotations etc).
- · Communication with service, office, and warehouse staff.
- Build relationships with key buyers in territory.
- Assess current/potential business in existing accounts and create strategy to grow business.
- Analyze customer needs and design sales, customer service and account management processes to acquire and retain accounts.
- Prepare and deliver customer quotes and identify new solutions for customers
- Provide technical and sales assistance to customers.
- Serve as interface between customers and company by ensuring that customer needs are met and by handling customer complaints.
- Prepare sales plans and future period forecast's.
- Monitor and track sales plan to ensure sales quota is met; prepare regular status reports.
- Keep abreast of products, market conditions and competitive activities.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/or Experience:** Two years of college or specialized training (business or environmental) is required plus 1-3 years experience. Bachelor's degree plus coursework and certification is preferred. Alternative combinations of education and experience may be accepted in lieu of degree.

**Competencies and Skills:** Analytical, prioritization, organization, computer and leadership skills. Must be proficient working with spreadsheets as well as CRM software tools.

Physical Demands: While performing the duties of this job, the employee must frequently drive a car.

## Job Description

Job Title: Branch Administrator
Department: Branch Services

Reports To: Branch General Manager

FLSA Status: Exempt Approved By: SVP HR Approved Date: 03/26/07

**Summary:** The Branch Administrator is an administrative position responsible for maintaining detailed and accurate company, branch, and customer files.

Essential Duties and Responsibilities include but are not limited to the following.

- Assembles packages of documents for Sales Representatives.
- Check Sales or Hazardous Waste documents turned in by Sales Representatives.
- Ensure proper completion of paperwork including manifests, and alert manager of errors.
- Provide customer service functions by responding to customer inquiries and/or complaints, handling or routing service questions, and solving problem accounts.
- Prepare Manual Forms, Manifests and LDR forms, as required.
- Distribute copies of service documents and manifests to customers, various Safety-Kleen locations, and to governmental agencies, as required.
- Contact customers delinquent in payment and coordinates pick-up of payments.
- Log wastes, adjusts service scheduling, prepares reports, completes MMVR reports and checks manifests for assigned territories.
- Provide other clerical support duties as requested.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and/Or Experience: High school diploma and six months+ related experience, and/or training.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit at a work station using the computer.

## Job Description

Job Title: Material Handler
Department: Branch Services

Reports To: Branch General Manager

FLSA Status: Exempt Approved By: SVP HR Approved Date: 03/26/07

**Summary:** The Material Handler works in the warehouse handling hazardous waste material using a forklift or other equipment.

Essential Duties and Responsibilities include but are not limited to the following.

- Loads finished product bulk shipments, and completes paperwork.
- Samples inbound bulk shipments and completes paperwork.
- Inventory and maintain loading and unloading areas.
- Prepares bulk wastes for shipment to other Safety-Kleen locations.
- Empties bulk into holding vessel.
- Washes "RCRA Empty" drums in drum washer and fills clean drums with solvent.
- Shrink wraps containerized wastes, arranging the waste on the pallet so all labels are showing, and prepares the shipment for transportation to other Safety-Kleen locations.
- Checks all trucks for proper strapping of drums and that cargo doors are closed.
- Disassembles returned parts washing machines and prepares them for shipment to the DC.
- Completes daily/weekly facility inspection required by Part B Permit or by Safety-Kleen, as assigned by the Branch Manager.
- Monitors waste quantity and storage limits and notifies the Branch Manager if limits will be exceeded within 24-48 hours so action can be taken.
- Oversees retained sample program.
- Ensure dock, warehouse and return & fill areas are cleaned and organized at all times.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma and six months+ related experience, and/or training. Familiar with H.S.E. and M.S.D.S. for all product used and stored at the facility. Certified forklift operator. Certified in hazardous waste operations and emergency response.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, and Organization skills.

**Physical Demands:** Exert up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects. Stands and/or walks more than 4 hours a day. Hand Tools & Small Power Tools; Hand Truck/Dolly; Large Power Tools & Equipment, Forklift, Truck, Wench; Personal Protective Equipment.

## **Job Description**

Job Title:

Sales & Service Associate

Department:

**Branch Services** 

Reports To:

**Branch General Manager** 

FLSA Status: Approved By:

Exempt SVP HR

Approved Date:

01/29/07

**Summary:** The SSA is an entry level position responsible for learning how to service our parts cleaning machines and selling related products to customers on route.

Essential Duties and Responsibilities include but are not limited to the following.

- Receive manifests, labels, route schedule from office staff.
- Select, pull, and load needed inventory (empty drums, pig products, new machines, etc) for the day's customer visits as per route schedule.
- Perform daily truck check & complete truck check list form.
- Perform routine route.
- Properly label, scan, and document waste picked up from customer site.
- Present receipt to customer, as well as address any customer service issues or sales opportunities.
- · Complete end of day paperwork.
- Perform equipment repair activities as needed.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

Certificates, Licenses, Registrations: Class C CDL and Haz Mat endorsement (or the ability to obtain)

**Competencies and Skills:** Mechanically Inclined, Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently stand or walk and occasionally drive a large truck. The employee must frequently carry, lift, pull or push up to 50 pounds. The employee is occasionally required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## Job Description

Job Title:

Sales and Service Representative

Department:

**Branch Services** 

Reports To:

Branch Service Manager

FLSA Status: Approved By:

Exempt

Approved Date:

SVP HR 01/29/07

**Summary:** Services SK machines at customer sites, sells new products to existing customers, removes waste from customer sites and provides on-site customer service.

## Essential Duties and Responsibilities include but are not limited to the following.

- Receive manifests, labels, route schedule from office staff.
- Select, pull, and load needed inventory (empty drums, pig products, new machines, etc) per route schedule.
- Perform daily truck check & complete truck check list form.
- Perform routine route
- Properly label, scan, and document waste picked up from customer site.
- Present receipt to customer as well as address any customer service issues or sales opportunities.
- Complete end of day paperwork.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

Certificates, Licenses, Registrations: Class C CDL and hazmat certifications.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of Safety, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck and/or move heavy equipment.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## Job Description

Job Title:

Oil Sales and Service Representative

Department:

**Branch Services** 

Reports To:

Branch General Manager

**FLSA Status:** 

Exempt/Non-Exempt

Approved By:

SVP HR

Approved Date:

01/29/07

Summary: The OSSR is responsible for safely and efficiently removing, transporting and delivering waste oil from customer facilities to Safety-Kleen oil recycling and refining centers.

Essential Duties and Responsibilities include but are not limited to the following.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform routine route.
- Properly label, scan and document waste oil removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as address any customer service issues and sales opportunities.
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight upload.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

Qualifications: To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

Education and/Or Experience: High school diploma or (GED) and six months+ related experience, and/or training.

Certificates, Licenses, Registrations: Class C CDL and Haz Mat endorsement and Tanker.

Competencies and Skills: Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

Physical Demands: While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck with reasonable accommodations. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck.

Work Environment: While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## Job Description

Job Title:

OIL/VAC Sales and Service Rep.

Department: Reports To:

Branch Sales & Service
Branch General Manager

FLSA Status: Approved By:

Exempt SVP HR

Approved By:
Approved Date:

10/2/06

**Summary:** This position combines the Oil & Vac routes and depending on the service will require the employee to remove waste fluid our customers (VSSR Route). This involves using vacuum equipment to pump waste materials and liquid from oil-water separator pits, as well as transporting & delivering the waste material to Safety-Kleen disposal sites. Or, it will require the employee to remove, transport and deliver waste oil from customer facilities to Safety-Kleen oil recycling and refining centers (Oil Route). Reports to CSM or BGM.

Essential Duties and Responsibilities include the following. Other duties may be assigned.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform route: (drive to customer location, ensure each service meets the used oil or vac
  waste qualifications, take sample of each oil or vac service & place in retain sample storage
  area, pump waste oil or waste materials & liquid from oil-water separator pits from customer
  facilities to Safety-Kleen oil recycling & refining centers or Safety-Kleen disposal site).
- Properly label, scan and document waste oil (oil service) or waste materials & liquids (vac service) removed from customer site into handheld. Present receipt to customer, obtain authorized signature, as well as answer any customer service issues.
- Complete end of day paperwork (any manifests, orders etc. that were not already in the handheld). Dock handheld for overnight upload.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements

#### Sales Responsibilities:

Focus is all customer types within a particular region or territory for new and existing accounts.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education and/Or Experience: High school diploma or (GED). No experience necessary. Certificates, Licenses, Registrations: CDL and Haz Mat endorsement and Tanker. Competencies and Skills: Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

Physical Demands: While performing the duties of this job, the employee must frequently kneel and stoop and constantly bend, climb, reach and twist. The employee must constantly carry, lift and pull up to 50 pounds. The employee must constantly drive a large truck and occasionally move equipment. Job will use right and left hands for repetitive movement such as Simple Grasping and Pushing/Pulling. Job will use right hand for repetitive movement such as Fine Manipulation. Job will use feet for repetitive movement such as foot controls.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## Job Description

Job Title: Vacuum Sales and Service Representative

**Department:** Branch Services

Reports To: Branch General Manager FLSA Status: Exempt/Non-Exempt

**Approved By:** SVP HR **Approved Date:** 01/29/07

**Summary:** The VSSR provides waste fluid removal services to our customers. This involves using vacuum equipment to pump waste materials and liquid from oil-water separator pits, as well as transporting & delivering the waste material to Safety-Kleen disposal sites.

#### Essential Duties and Responsibilities include but are not limited to the following.

- Receive manifests, labels & route schedule from office staff
- Perform Pre & Post Trip Inspection Report
- Perform routine route and associated daily activities.
- Properly label, scan and document waste materials & liquids removed from customer site.
- Present receipt to customer, obtain authorized signature, as well as answer any customer service issues.
- Complete end of day paperwork.
- Ensure environmental compliance and operate vehicles in accordance with DOT, local, state and federal requirements.
- Ensure strict compliance to Branch SOP's.

**Qualifications:** To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

**Education and/Or Experience:** High school diploma or (GED) and six months+ related experience, and/or training.

Certificates, Licenses, Registrations: Class C CDL and Haz Mat endorsement and Tanker.

**Competencies and Skills:** Customer Service, Attention to Detail, Recognize the importance of, and adherence to, Safety regulations and policies, Time Management, Product Knowledge, Sense of Direction, Knowledge of Hazardous Waste, and Organization skills.

**Physical Demands:** While performing the duties of this job, the employee must frequently sit, walk, stand, crawl or drive a truck with reasonable accommodations. The employee must frequently carry, lift, pull or push 50 pounds or more. The employee is constantly required to reach, bend, kneel, squat, climb, stoop or twist; and talk or hear. The employee must constantly drive a large truck.

**Work Environment:** While performing the duties of this job, the employee is frequently exposed to moving mechanical parts and outside weather conditions. The employee is occasionally exposed to wet and/or humid conditions; high, precarious places; fumes or airborne particles; extreme cold; extreme heat; and risk of electrical shock.

## **TABLE 6.1-15**

# CONTINUING TRAINING TOPICS FOR BRANCH EMPLOYEES

- Hazard Communication Safety Training
- Hazard Communication regarding MSDSs
- Preventing Injury and Illness
- Hazardous Materials Regulations
- Waste Analysis Plan
- Preparedness, Prevention, and Contingency Plan
- Respirator Fit Testing, and Training
- Generator Requirements
- Hazardous Waste Paperwork Manifests, BOL, Labeling, etc.
- RCRA Refresher

#### Part II

#### A. General

#### 5. WASTE INFORMATION

### WASTE ANALYSIS AND WASTE CODES

In accordance with EPA's hazardous waste regulations, the following types of hazardous waste have been identified at the Branch:

- Used parts washer solvent, dumpster mud, and tank bottom sludge;
- Used immersion cleaner #699;
- Dry cleaning wastes;
- Paint wastes;
- Fluid Recovery Service (FRS) wastes;
- Used aqueous parts washer solvent;
- Used aqueous brake cleaner; and
- Branch generated liquids and solids (debris).

The typical composition and chemical/physical analysis for each of the waste streams listed above (except FRS) is shown in the chemical analyses reports in Appendix B. This information is based on existing data generated from similar processes within Safety-Kleen's current and/or potential customer base.

### **USED PARTS WASHER SOLVENT**

The clean parts washer solvents are labeled under trade names. Flash points of the petroleum-based parts washer solvents range from 142°F to 212°F. Chemically, the solvent primarily consists of petroleum hydrocarbon fractions with boiling points between 310°F and 400°F. Impurities, such as light aromatic hydrocarbons(LAHC) and chlorinated hydrocarbons, usually constitute less than one percent of the total volume.

The used petroleum-based parts washer solvent consists primarily of parts washer solvent, solids, oil, and grease picked up in the various degreasing operations. In most instances, no water is associated with the used solvent; however at times, the water content may range from one percent to as much as 50 percent. The oily bottom solids may range from 2 percent to 10 percent, by volume, in the used solvent mixture. The substances that comprise the used parts washer solvent are compatible and are suitable for bulking.

Chemically, the composition of the solvent fraction in the used parts washer solvent is essentially the same as the clean solvent, as shown in analyses.

Containers of parts washer solvent that are returned from customers are poured into a drum washer (wet dumpster) at the return/fill station, which is piped into the used solvent 15,000-gallon aboveground storage tank located in the tank farm. Safety-Kleen has converted to 150 Premium Solvent for distribution to our customers for parts washer units and has discontinued the 105 solvent in the State of Florida. The mixture within the 15,000-gallon storage tank, therefore, may not exhibit the characteristic of ignitability, though it is currently being managed as such. The used parts washer solvents also may be considered characteristic waste by toxicity characteristic leaching procedure (TCLP) and may carry the waste codes referred to in Table 7.1-1.

#### **Used Immersion Cleaner**

Safety-Kleen leases units containing "Immersion Cleaner and Carburetor and Cold Parts Cleaner #699". This product is a heavy aromatic naphtha, N-methyl-2-pyrrolidinone, dipropylene glycol methyl ether, monoethanolamine and oleic acid, and may contain a maximum of 1 percent chlorinated compounds.

The used immersion cleaner #699 is returned from customers in separate containers and remains in these containers for shipment to a Safety-Kleen recycle facility. The used

immersion cleaner is basically unchanged from its clean state, except oil, grease, and other solids may be picked up during the various degreasing operations. This spent solvent is not an ignitable waste. It is regarded as characteristic hazardous waste because of the presence of various metals and organic constituents. The waste codes that the used immersion cleaner may carry are listed in Table 7.1-1.

#### Used Parts Washer Solvent Bottom Sludge

Tank bottom sludge settles from used parts washer solvent in the aboveground tank. The sludge may contain soils, oil, grease, and water picked up in degreasing operations, together with a small amount of mineral spirits. Analyses have shown that the sludge may be considered characteristically hazardous with respect to TCLP standards. The sludge is removed from the aboveground storage tank periodically and shipped to a Safety-Kleen recycle facility for reclamation/disposal.

Dumpster mud is accumulated in the wet dumpsters when emptying the used parts washer solvent from the containers. Filters from parts washers utilizing parts washer solvents also may be present along with small metal parts. The nature of this waste is similar to the used parts washer solvent tank bottom sludge, except with some small metal parts and less mineral spirits. It is regarded as characteristic for contaminants using TCLP standards.

The mud in the dumpsters is cleaned out frequently. The waste is containerized and stored as a Branch-generated waste in the permitted waste storage area for later shipment to a Safety-Kleen recycle facility for reclamation or disposal.

Parts washer solvent dumpster mud accumulated in the solvent return receptacles (wet dumpsters) is considered to be characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1. Parts washer tank bottoms may be considered

characteristically hazardous with respect to TCLP and may carry the waste codes referred to in Table 7.1-1.

## **Dry Cleaning Wastes**

Solvent used in dry cleaning of clothing is commonly tetrachloroethylene (perchloroethylene), mineral spirits, or trichlorotrifluoroethane. Hence, wastes generated are:

- 1. Filter Cartridges: In addition to the construction materials consisting of steel, paper, clay, and carbon, the used cartridge retains solvent, oil and grease, and undissolved elements such as lint and soil. Solvent retained in the filter cartridge generally amounts to less than 50 percent of the total cartridge weight.
- 2. Muck: At some dry cleaning facilities, a mixture of powdered materials is used as the filter medium for the dry cleaning solvent, in lieu of the cartridge filter. This filter medium normally consists of diatomaceous earth and carbon. In addition to lint, soil, and grease retained by this medium, between 40 and 50 percent by weight of the "muck" is absorbed solvent.
- 3. Still Residue: After filtration, the dry cleaning solvent is distilled by the dry cleaning machine to remove the dissolved materials from the used solvent. The dissolved materials (still residues) are in liquid form and consist of primarily detergent, oil and grease, vinyl acetate (a sizing compound), and 20 to 30 percent of solvent.

Approximately 80 percent of the dry cleaning solvent used is perchloroethylene (F002) and characteristic waste by TCLP that may carry the waste codes referred to in Table 7.1-

1. Approximately 17 percent of the dry cleaning solvent is mineral spirits (naptha), and the remaining 3 percent of the dry cleaning solvent is trichlorotrifluoroethane. Analyses have shown these dry cleaning wastes may be characteristically hazardous by TCLP and may carry the waste codes referred to in Table 7.1-1.

#### Paint Wastes

Paint wastes consist of various lacquer thinners and paints. The waste is collected in containers at the customer's place of business. Upon receipt at the Branch, the manifest is terminated, and the waste paint containers are stored in Safety-Kleen's permitted container storage area. The paint wastes are then re-manifested and periodically sent to a Safety-Kleen recycle center. Paint wastes include such constituents as acetone, isopropyl alcohol, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylenes, and acetate compounds. This waste stream may be an ignitable waste (D001) and characteristic for other contaminates by TCLP. Because of the solvent constituents, it also may be considered a listed waste (F003, F005) and may carry the waste codes referred to in Table 7.1-1.

#### Fluid Recovery Service Wastes

Fluid Recovery Services (FRS) is a program managed by the Safety-Kleen Branch. These wastes are handled as transfer wastes at the Branch. Examples of the types of wastes that may be received from FRS customers include:

- Spent hydrocarbon distillates, such as waste fuel, oil, petroleum, and naptha, etc.
- Lubricating oils, hydraulic oils, synthetic oils, and machine oils.
- Industrial halogenated solvents such as 1,1,1-trichloroethane, tetrachloroethylene, Freon, and trichloroethane.
- Photographic and x-ray related wastes.
- Paint, lacquer thinners, and paint wastes.
- Other hazardous and non-hazardous halogenated and non-halogenated wastes.

Due to the great variability in the composition of FRS wastes, their application or use, and the source industry, Safety-Kleen characterizes each waste stream from each generator separately.

## **Used Antifreeze**

The spent antifreeze (ethylene glycol) is collected from automobile service stations. All antifreeze collected and managed by Safety-Kleen within Florida is recycled. At the customer's location, Safety-Kleen pumps waste ethylene glycol (antifreeze) into a Safety-Kleen used oil tanker truck. This truck transports the used antifreeze/used oil mixture to the branch for off-loading into a tank for storage, or directly to the Bidsite for off-loading into a rail car. The comingled material is sent to the SK East Chicago rerefinery where the glycol is separated by distillation. The glycol is then sent to a recycler for processing into a pure product which is then sold on the open market. This procedure is in accordance with FDEP's Best Management Practices for Managing Used Antifreeze at Vehicle Repair Facilities, dated April, 2011. The Florida Department of Environmental Protection (FDEP) has determined this waste stream can be handled as non-hazardous as long as it is destined for recycling.

## Aqueous Brake Cleaner

The Aqueous Brake Cleaner (ABC) is primarily an aqueous solution with approximately 10% nonorganic additives and detergents. The spent ABC is transported from the customers in containers. Spent ABC from customer's parts washers will be accumulated in the 15,000-gallon used solvent storage tank via the return/fill station. The used aqueous parts washer solvent may be considered characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1.

## Aqueous Parts Washer Solvent

The aqueous parts washer solvent is primarily an aqueous solution with a small amount of organic additives (alcohols). The spent aqueous parts washer solvent is transported customers in containers and will be accumulated in the 15,000-gallon used solvent storage tank via the return/fill station. The used aqueous parts washer solvent may, or

may not be considered characteristic waste by TCLP and may carry the waste codes referred to in Table 7.1-1.

#### Mercury-Containing Lamps and Devices

Mercury-containing lamps and devices are another type of waste handled by the Branch. These wastes are handled as non-regulated transfer wastes, and as such carry no waste codes. As part of its protocol for handling mercury-containing lamps and devices, the Branch provides customers with four-foot and eight-foot boxes which hold up to 39 lamps. Other types of DOT approved containers are used for mercury devices. The boxes are picked up at customer locations and are stored at the Branch in a designated area within the containerized waste storage area (Figure 8.1-1). These containers are labeled in accordance with 62-737.400(5)(b)., Florida Administrative Code (FAC). The boxes are periodically shipped to a permitted mercury recovery or reclamation facility.

## Branch Generated Liquids and Solids (Debris)

In the course of conducting day-to-day business operations, the Branch may generate waste primarily associated with sampling customers' wastes. Such wastes may include wipes, gloves, etc. In addition, liquid wastes may be generated as a result of the decontamination of sampling equipment. The liquid and solid wastes are contained in drums which can be stored in the permitted container storage area. The waste codes associated with this waste stream will vary according to the type of waste being sampled. Branch-generated liquid and solids (debris) may carry the waste codes listed in Table 7.1-1.

#### 6. WASTE ANALYSIS PLAN

## General Waste Handling Procedures

Safety-Kleen provides solvent distribution, collection, and reclamation services to companies that are primarily engaged in automobile repair, industrial maintenance, and dry cleaning. Safety-Kleen operates a "closed loop" waste recovery service for the parts cleaning machines used by customers at their facilities. When the cleaning fluids become dirty and can no longer be used effectively, Safety-Kleen picks up the dirty fluids and replaces them with clean fluids. The dirty fluids are returned to Safety-Kleen where they are recycled and subsequently reused by customers. Approximately two-thirds of the cleaning fluids provided as product by Safety-Kleen have been use before and subsequently reclaimed. Safety-Kleen's customers typically are small quantity generators who operate businesses which generate only a few hazardous waste streams. These factors help insure that Safety-Kleen will receive a highly predictable and homogeneous waste stream.

Spent Solvents are the primary feedstocks for the generation of Safety-Kleen solvent products. As a result, quality control of the spent solvents is necessary to ensure that reclamation occurs in the safest and most efficient manner possible. Furthermore, the materials collected at the Branch are usually collected from a company with a single process. The composition and quality of these materials are known and Safety-Kleen's operating experiences have shown that the collected materials rarely deviate from company specifications. As an additional safeguard, Safety-Kleen personnel are instructed to inspect certain materials before returning them to the Branch. This mode of operation has been proven to safetguard the recycling process and maintain a quality product.

It is Safety-Kleen's practice that suspected nonconforming material must not be accepted until a full analysis has been done or the material must be rejected. Procedures to verify waste characteristics occur at several check points in the management of the solvent, as described below.

Safety-Kleen controls the use and management of its solvents by:

- Limiting the solvents stored to those compatible with one another and their containers:
- Determining the customer's type of business (i.e., his/her SIC code may be recorded) and the purpose for which the machine will be used;
- Training customers to use the machines properly;
- Training employees to inspect spent solvent and determine whether it is acceptable;
- Marking each container with the customer's name, address, and EPA ID number (if required). This information remains on containerized waste until it is accepted at the Branch;
- Keeping a record of each incoming and outgoing shipment in the operating log at each facility;
- Demonstrating the chemical and physical homogeneity of the wastes by sampling and analyzing a representative portion of generator waste streams on an ongoing annual basis at the national level; and
- Routine analysis of the wastes received at the recycle centers.

Safety-Kleen's customers sign a service document containing the following information:

- Name, address, and EPA ID number of the facility to which the waste is being shipped;
- The customer's name, address, and EPA ID number (if required); and
- The description and amount of Safety-Kleen solvent waste generated.

Each incoming and outgoing shipment is recorded in the facility's operating log. In addition, each sales representative reviews acceptance criteria each time a waste is picked up. In accordance with Safety-Kleen's pre-printed documents, all generators sign a statement with each shipment that there has been no material added to the closed-loop products supplied by Safety-Kleen since the last shipment. Finally, selected environmental reviews may be utilized to guard against the addition of other wastes into the generator's wastes.

If a waste is rejected at the time of service based on the volume or consistency discrepancies, the customer will be given a choice as to whether they will dispose of the waste or will require Safety-Kleen's assistance. If a customer requests Safety-Kleen's assistance, a sample will be drawn using a Coliwasa® tube, and it will be analyzed for flash point, volatile organic compounds, and other parameters to adequately define the constituents (e.g., for halogenated organic compounds, PCB's, flash point, etc.). If the waste is within the acceptable range for wastes permitted for storage, it will be relabeled and manifested, and then managed with the other wastes. If it is not acceptable, it will either be: (a) managed on a 10-day transfer basis and manifested to a properly permitted reclamation or disposal facility, or (b) manifested and shipped directly to a properly permitted reclamation or disposal facility.

#### Qualitative Waste Analyses

### General Inspection Procedures

Prior to acceptance, Safety-Kleen visually inspects each container of waste parts washer solvent at the customer's location. This inspection includes an evaluation of the waste volume, appearance, and consistency. Safety-Kleen' personnel are familiar with the characteristics of all wastes described and managed at their facilities based on known characteristics. These criteria, described below, are used by Safety-

Kleen personnel to aid in their visual inspections. These acceptance criteria enable Safety-Kleen to help ensure that the waste being picked up is an acceptable waste and does not contain unacceptable contaminants.

If a particular container of waste does not meet the established acceptance criteria, the Safety-Kleen service representative will reject the container at the customer's place of business. At the customer's request, a sample may be collected and analyzed by Safety-Kleen to determine whether it can be managed by Safety-Kleen. Depending on the source, the waste will be analyzed for parameters related to the suspected source of the waste. Alternately, the customer may choose to dispose of the material by using another (non-Safety-Kleen) facility.

If the waste is sampled for further analysis, the service representative will take a sample of the waste and then seal the container and label it as hazardous waste. The container is left with the customer pending the results of the laboratory tests. The laboratory testing involves analyzing the suspect waste for compounds related to the suspected source of the waste (e.g., volatile organics, halogenated organics, PCBs, etc.).

If the laboratory analysis reveals that the sampled waste is not contaminated, Safety-Kleen will accept the waste from the customer. If the laboratory confirms that the waste is contaminated, the customer will be given a choice as to whether they will dispose of the waste or will require Safety-Kleen's assistance.

## Waste-Specific Criteria

The following is a description of the specific acceptance criteria for each waste stream.

Spent Parts Washer Solvent

Volume and color are the acceptance criteria for determining by visual inspection whether spent parts washer solvent has been contaminated, most significantly volume. Safety-Kleen places clean parts washer solvent in 16, and 30-gallon containers with the customer which, if no additional material has been added to the container, should not hold more than the 16, and 30 gallons of waste, respectively, at the time of waste pick-up since those volumes were equal to the respective virgin product amounts in the containers. If the volume of waste in a given container exceeds the specified level, the Safety-Kleen service representative may sample the waste for laboratory testing as described above, or he/she will reject the waste.

Some larger Safety-Kleen parts washers and some customer-owned machines will require manual pumping of the solvent out of the unit. In these cases, solvent volumes in drums may exceed the values presented above. Volume screening of solvent from these units will be conducted according to the total volume of liquid removed from the unit. If the quantity removed is larger than the quantity provided, the Safety-Kleen service representative may sample the waste for laboratory testing as described above, or he/she will reject the waste.

The spent parts washer solvent is also visually inspected for its color. Unused parts washer solvent (150 Premium Solvent) has a greenish tint or is clear. The aqueous parts cleaner is also clear. As the solvent is used, it changes color. The specific color which the solvent turns is dependent upon the type of equipment being cleaned. For example, solvent used at automotive shops changes to brown or black, while solvent used by silk screeners will change to the color of the inks (red, blue, pink, green, etc.). If the spent solvent color does not appear to be consistent with the type of equipment being cleaned, the service representative may sample the waste for possible contamination as described above, or he/she will reject the waste.

#### Immersion Cleaner

The criteria for the inspection of spent immersion cleaner are volume, color, and physical state. Clean immersion cleaner is delivered to the customer in containers. These containers each contain six gallons of immersion cleaner. Spent immersion cleaner is picked up from the customer in the same containers. If no additional material has been added to the spent immersion cleaner, the containers should contain no more than six gallons. If a container contains more than six gallons of waste, a sample may be collected and analyzed for contamination following the procedures described above or waste will be rejected. Unused immersion cleaner is amber in color. As the solvent is used, it turns brown in color. The more it is used, the darker it becomes, until it is almost black. Therefore, if the spent immersion cleaner does not appear to be amber, brown, or black, the service representative may sample the waste for possible contamination as described above, or he/she will reject the container of waste.

### Dry Cleaner Wastes

Dry cleaner wastes consist of spent filter cartridges, powder residue, and still bottoms, each of which is discussed below.

### Spent Filter Cartridges

Spent filter cartridges are placed in containers which hold one to three cartridges. It is readily apparent to the trained service representative whether the items in the containers are filter cartridges. The containers may also contain approximately one inch of liquid which should be either clear or light brownish tint. If the amount of the liquid is greater than approximately one inch or if the liquid is a color other than light brown, the service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject the waste.

#### Powder Residue

The criteria for the acceptance of powder residue are consistency and color, the former

being the more significant criterion of the two. A container of powder residue should not contain more than one inch of liquid. The waste should be slightly wet, with a paste-like consistency. If there is too much liquid in the container, the waste may be sampled for contamination in accordance with the procedures described above, or the waste will be rejected. The powder residue is also inspected for color and should appear to be grayish-black. If the residue is not grayish-black in color, the service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject the waste.

#### Still Bottoms

The criteria for the acceptance of dry cleaning still bottoms are consistency and color. The waste should have a highly viscous, tar-like consistency. If the consistency of the waste is too thin, the waste may be sampled for contamination in accordance with the procedures described above, or it will be rejected. In addition to the consistency, the still bottom waste is inspected for color. The waste should appear dark brown or black in color. If the waste is a different color, a service representative may sample the waste for contamination in accordance with the procedures described above, or he/she will reject waste.

#### Paint Wastes

Safety-Kleen handles both lacquer thinner waste generated from the paint gun cleaning process and paint waste, each of which is described below.

#### Lacquer Thinner Waste

The significant criteria for determining whether lacquer thinner waste will be accepted is volume. The solvent is provided to customers in 5-gallon containers. The paint gun cleaning machine operates as a closed system consisting of a 5-gallon container for fresh lacquer thinner and a 5-gallon container for spent lacquer thinner. The closed system is designed such that there should never be a combined volume of more than 7.5 gallons of solvent in the two 5-gallon containers. The fresh solvent container starts with 5 gallons

of clean solvent and the spent solvent starts with 2.5 gallons of clean solvent. As the machine is used to spray guns, the fresh solvent is pumped from a tube in the fresh solvent container through the machine and into the spent solvent container. This cleaning/degreasing process will continue until the volume of solvent in the fresh container reaches the 2.5-gallon mark. A tube in the fresh solvent extends half way down the container (i.e., to the 2.5-gallon mark). Any solvent above 2.5 gallons in the fresh solvent container at the time of servicing will be pumped through the machine into the spent solvent container by the Safety-Kleen service representative. Therefore, when the machine is serviced, the spent solvent container will always contain 5 gallons of solvent. If a service representative discovers more than a total of 7.5 gallons of solvent in the two containers or there is an overfill from the spent solvent container, the waste may be sampled for contamination in accordance with the procedures described above, or the waste will be rejected.

### Paint Waste

The significant criterion for the inspection of paint waste is consistency. The waste should contain no more than 30 percent solids. The material should be a "free flowing" liquid, but should not contain a significant amount of water.

## Mercury-Containing Lamps and Devices

As part of its protocol for handling mercury-containing lamps and devices destined for recycling, the Branch provides customers with 4-foot and 8-foot boxes which hold up to 39 lamps. Boxes are inspected prior to transport from the customer to the Branch. Boxes containing broken lamps are accepted only if the box is completely sealed and then sealed again with plastic shrink wrap. Surfaces that have come into contact with pieces from a broken lamp will be decontaminated using HgX (sodium thiosulfate and ethylene diaminetetraacetie acid), in accordance with manufacturer's specifications.

#### Waste Analyses at the Recycle Facility

Analyses performed at the Safety-Kleen recycle facilities are undertaken to safeguard the recycling process and to assure the product quality. In addition, each waste material is sampled and analyzed upon receipt of each waste load as required by the permit and associated waste analysis plan for the receiving recycle center. In order to properly and safely process waste generated by the Branch, the recycle center samples and analyzes each waste load as it is received from the branch. The following tables summarize a typical waste analysis plan at the recycle center facility related to the hazardous materials returned from the Branch:

- Table 7.2-1 Parameters and Rationale for Hazardous Waste Identification
- Table 7.2-2 Parameters and Test Methods
- Table 7.2-3 Methods Use to Sample Hazardous Wastes
- Table 7.2-4 Frequency of Analysis

In addition to the aforementioned analyses, TCLP analyses for all compounds, except pesticides, will be conducted every year on all characteristic hazardous waste steams (example: used parts washer solvent and immersion cleaner #699).

#### 7. REQUIRED RECORDS AND REPORTING

#### **Waste Manifests**

Appropriate shipping papers/manifests are used, based on the monthly quantity of hazardous waste generated by the customer. Safety-Kleen services all three categories of generators in Florida — Conditionally Exempt Small Quantity Generators (CESQGs), SQGs, and LQGs. CESQGs' spent solvent is removed via a service document and no manifest or Land Disposal Restrictions (LDR) form is required. Appropriate records are kept at the Branch as to the date of waste pick-up, quantity, and other data on the service

document. SQGs' spent solvent is shipped under a tolling agreement in Florida, which means that a manifest is not used. An LDR form is completed for each SQG. LQGs' spent solvent is always manifested (if hazardous) and an LDR form completed.

Spent solvent (from each Safety-Kleen customer, regardless of generator status) is brought back to the Branch and dumped in the return/fill station and pumped to the waste solvent tank. This tank contains the spent solvent of many customers and is hazardous. The contents are regularly sent via tanker truck to the recycle center in Lexington, SC. These loads are always manifested and accompanied by a LDR form. Shipments of parts washer solvent dumpster mud are also manifested accordingly. Required records are kept at the Branch and the recycle center in accordance with regulatory timeframes.

In accordance with 40 CFR 264.71 through 77, Safety-Kleen will ensure that:

- 1. Customers who are required to provide a manifest do so;
- 2. The manifests are prepared and signed properly; and
- 3. Copies are distributed and kept on file, as required.

In addition, discrepancies must be remediated in accordance with 40 CFR 264.72 and unmanifested wastes will be reported as described under 40 CFR 264.76.

#### Required Notices

If Safety-Kleen arranges to receive hazardous waste from a foreign source, the Regional Administrator must be notified in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required. Safety-Kleen informs its customers in writing (i.e., on each service document) that the facility has the appropriate permit(s) for, and will accept the waste the generator is shipping. Safety-Kleen keeps a copy of this written notice as part of the operating record.

Before transferring ownership or operation of this facility during its operating life, Safety-Kleen will notify the new owner or operator in writing of the requirements of Part 264 and Part 270 of Chapter 40 in the Code of Federal Regulations.

Biennial reports required by Chapter 62-730.180(4) FAC, will be prepared and submitted by Safety-Kleen, and these records will also be available at the facility for review. The biennial report will be submitted to the Regional Administrator and/or FDEP by March 1 during each even year (1990 being the first year) on EPA form 8700-13B. The report will cover facility activities during the previous calendar years and will include:

- The EPA identification number, and address of the facility;
- The calendar years covered by the report;
- The method of treatment, storage, and disposal for each hazardous waste; and
- A certification signed by the owner or operator of the facility or the authorized representative.

#### **Operating Record**

An operating record which contains the information required under 40 CFR 264.73 is maintained and all records and logs are available at the facility, in accordance with 40 CRR 264.74.

The following information will be maintained in writing in the operation record for the facility:

- A description and quantity of each hazardous waste received;
- The date and storage method for such hazardous waste;
- The location of each hazardous waste stored within the facility;
- Records and results of waste analyses performed;
- Summary reports and details of all incidents that require implementation of the contingency plan;

- Monitoring, testing, or analytical data, and corrective action where required by Subpart F and other applicable sections of 40 CFR 264;
- All closure cost estimates under 40 CFR 264.142 and all contingent post-closure cost estimates under 40 CFR 264.144;
- Records of quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted; and
- For any restricted waste generated that can be land disposed without further treatment, and is sent to a land disposal facility, a notice and certification will be sent to the treatment, storage, or land disposal facility with the waste. The notice will state that the waste meets the applicable treatment standards set forth in Subpart D of 40 CFR 268 and applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). The notice will include the following information:
  - 1. EPA Hazardous Waste Number; and
  - 2. The corresponding treatment standards and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d).

Further, the LDR certification will be signed by an authorized representative and will state the following:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

Section 264.74 requires that all records, including plans, must be furnished upon request to duly designated representative of the Regional Administrator, and this requirement will be honored. A copy of all records of waste disposal locations and quantities will be submitted to the Regional Administrator and/or FDEP upon closure of the facility, if applicable.

As a registered transporter and storage facility for mercury-containing lamps and devices destined for recycling, the Branch complies with the record keeping requirements of FAC 62-737.

#### Land Ban Notification/Certification Forms

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

- 1. Special forms for each regularly handled wastes types (e.g., parts washer solvent, immersion cleaner, and percholoroethylene); or
- 2. A general form that must be completed for unique or nonstandard waste streams.

The notice is required paperwork for the streams handled by Safety-Kleen. When a shipment with the notice is received, the notice is kept in the files of the receiving facility with the manifest or with the pre-print if a manifest is not used.

## TABLE 7.1-1 PERMITTED AND TRANSFER WASTES

Waste Type	Process Code(s)	Estimated Annual Amounts (Tons)	Waste Codes		
Spent Parts Washer Solvent	S01* S02**	813	D001 and D-Codes Listed in Note Below		
Branch-Generated Liquids/Solids (Debris)	S01*	17	D001 and D-Codes Listed in Note Below; F001, F002, F003, F004, F005		
Dumpster Sediment	S01*	Included Above	D001 and D-Codes Listed in Note Below		
Tank Bottoms	S01*	Included Above	D001 and D-Codes Listed in Note Below		
Used Immersion Cleaner (New Formula) IC699	S01*	28	D-Codes Listed in Note Below		
Dry Cleaning Waste (Perchloroethylene)	S01*	350	F002 and D-Codes Listed in Note Below		
Dry Cleaning Waste (Non- perchloroethylene)	S01*	Included Above	Transfer wastes - waste codes assigned by generator.		
Paint Wastes	S01*	69	D001, F003, F005 and D-Codes Listed in Note Below		
Fluid Recovery Service (FRS) Waste	S01 ***	250	Transfer wastes - waste codes assigned by generator.		
Mercury-Containing Lamps/ Devices	N/A***	Less than 2.2	Not applicable - handled as nonhazardous transfer wastes.		

#### **NOTES:**

D-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

- \* This waste will be stored in containers in the north or south building container storage area. The maximum capacity in the north area is 5,200 gallons. The maximum capacity in the south area is 12,749 gallons of flammables and 41,220 gallons of nonflammables.
- \*\* The spent parts washer solvent storage tank has a capacity of 15,000 gallons and may be filled up to 14,250 gallons.
- \*\*\* This waste will be held for transfer in containers in the transfer area.

#### **TABLE 7.2-1**

## PARAMETERS AND RATIONALE FOR HAZARDOUS WASTE IDENTIFICATION

	Hazardous Waste	Parameter <sup>a</sup>	Rationale
1.5	Used Parts Washer Solvent	Flash Point TCLP	May exhibit ignitable characteristics (D001); may contain TCLP compounds.
2.	Parts Washer Solvent Tank Bottom Sludge and Free Water	TCLP Flash Point	The sludge and free water may contain TCLP compounds and the sludge has a flash point of 105° F (D001).
3.	Parts Washer Solvent Dumpster Mud	TCLP Flash Point	The mud and free water may contain TCLP compounds and the sludge has a flash point of 105° F (D001).
4.	Used Immersion Cleaner (699IC)	TCLP	May contain TCLP compounds.
5.	Dry Cleaning Wastes (Perchloroethylene)	Perchloroethylene TCLP	Three separate formulas exist for dry cleaning products. Perchloroethylene formula is the only waste managed as a permitted waste. It may contain TCLP compounds.
6.	Paint Wastes	Acetone Isopropyl Alcohol Methyl Ethyl Ketone Methyl Isobutyl Ketone Toluene Xylenes Acetate Compounds Flash Point TCLP	Contains ingredients of F003 and F005 wastes, and may contain TCLP compounds. May exhibit ignitable characteristics (D001).
7.	Aqueous Brake Cleaner	TCLP	May contain TCLP compounds.
8.	Aqueous Parts Washer	TCLP	May contain TCLP compounds.

#### **NOTES:**

<sup>&</sup>lt;sup>a</sup> TCLP Waste Codes: D004-D011, D018, D019, D021-D030, D032-D043.

#### **TABLE 7.2-2**

#### PARAMETERS AND TEST METHODS

Parameter	Test Method	Reference
рН	pH Meter	ASTM Standard D1293-65
Flash Point	Tag closed cup tester	ASTM Standard D56-79
TCLP	Toxicity Characteristic Leaching Procedure	40 CFR 261, Appendix II
Hydrocarbons and Volatile Organics	Gas Chromatography (GC)	Methods Based on "Test Methods for Evaluation of Solid Waste, Physical/ Chemical Methods," SW-846, USEPA and ASTM Standards. In particular 8240 and 8270.

TABLE 7.2-3
METHODS USED TO SAMPLE HAZARDOUS WASTES

Hazardous Waste	Reference for Sampling	Sampler	Description of Sampling Method
Used Parts     Washer Solvent	Sampling a tank "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2- 80/018	Test Methods for the Evaluation of Solid Waste Physical/ Chemical Methods, SW-846, USEPA	For tanksBomb sampler (similar to weighted bottle sampler)
Parts Washer     Solvent, Tank     Bottom Sludge,     and Free Water	Same as 1	Same as 1	Same as 1
Parts Washer     Solvent     Dumpster Mud	Sampling a drum "Samplers and Sampling Procedures for Hazardous Waste Streams," EPA/600/2- 80/018	Same as 1	Representative composite sample using drum sampler
4. Used Immersion Cleaner IC699	Same as 3	Same as 1	Same as 3
5. Dry Cleaning Wastes	Same as 3	Same as 1	Same as 3
6. Paint Wastes	Same as 3	Same as 1	Same as 3
7. Aqueous Brake Cleaner	Same as 3	Same as 1	Same as 3
8. Aqueous Parts Washer	Same as 3	Same as 1	Same as 3

TABLE 7.2-4
FREQUENCY OF ANALYSIS OF HAZARDOUS WASTES

	Hazardous Waste	Frequency
1.	Used Parts Washer Solvent	Gas chromatograph annually Flash point annually TCLP annually
2.	Parts Washer Solvent, Tank Bottom Sludge, and Free Water	Gas chromatograph annually TCLP annually
3.	Parts Washer Solvent  Dumpster Mud	Gas chromatograph annually TCLP annually
4.	Used Immersion Cleaner 699	Gas chromatograph annually TCLP annually
5.	Dry Cleaning Wastes	Gas chromatograph annually TCLP annually
6,	Paint Wastes	Gas chromatograph annually TCLP annually
7.	Aqueous Brake Cleaner	Gas chromatograph annually TCLP annually
8.	Aqueous Parts Washer	Gas chromatograph annually TCLP annually

#### **NOTES:**

<sup>&</sup>lt;sup>a</sup> In accordance with 40 CFR 264.13(a), Safety-Kleen will also perform physical and chemical analysis of a waste stream when it is notified or has reason to believe that the process or operation generating the waste has changed, or when the result of inspection indicates that the waste to be collected does not match the waste designated.

#### Part II

#### B. CONTAINERS

#### **CONTAINMENT SYSTEM**

The container storage areas shown in Figure 8.1-1 occupy portions of the building areas which have concrete floors, concrete berms, and collection trenches to form spill containment systems. The system is maintained. Spills are removed by a hand-held portable electric pump (the coms pump), wet-dry vacuum cleaner, or sorbent materials. The capacities of the containment system are designed to be greater than 10 percent of the total liquid storage capacity in each drum storage area. Since the characteristics of the stored wastes are known, no analyses are performed for the materials collected from the containment area. All collected materials are sent to a permitted recycling or reclamation facility.

The container storage area for the north building (Figure 8.1-2) has a capacity of 5,200 gallons. The types and numbers of each container may vary. The flammable container storage area for the south building (Figure 8.1-3) has a capacity of 12,749 gallons. The nonflammable terminated and transfer waste storage area plus the flammable and nonflammable waste staging area in the south building container storage area has a capacity of 41,220 gallons. These capacities include both fresh product and used material.

The container storage areas are completely enclosed so no precipitation will enter them. There is curbing around the container storage areas except where the trenches are located. The north building has three containment trenches with a combined capacity of 520 gallons. The south building has three trenches. One trench provides containment for the flammable storage room. The remaining two trenches provide containment for the non-flammable terminated and transfer waste storage area plus the flammable and non-flammable waste staging area. These two trenches have a combined capacity of 4,122 gallons. Containment calculations for the trenches are provided in Appendix C.

In 1993 Safety-Kleen installed a fire suppression system for the entire facility. As part of the fire code requirements, Safety-Kleen was required to provide containment for the

sprinkler water from the flammable storage room. A pipe was connected to the end of the existing containment trench in the flammable storage room. The pipe runs underground along the south end of the building and flows into a previously unused tank containment area. The pipe is metal and is enclosed in a sealed high density polyethylene liner. The previously unused tank containment area has been segregated into two sections. The northern section is used to house the fire water tank and pump house. The southern section provides secondary containment for liquids from the flammable storage area in the event the fire protection sprinkler system is activated or in the event that the flammable storage room containment trench capacity is exceeded. Based on the configuration and slope of the trench in the flammable storage area, only in the event a spill of greater than 550 gallons would material enter the pipe and/or additional secondary containment area. The southern portion of the containment area has been coated with chemically resistant coating in the same manner as the container storage areas. The installation of this pipe and containment area has affected the secondary containment capacity of the flammable storage room. The existing trench provides 660 gallons of containment capacity, while the additional secondary containment area provides 5,064 gallons of containment capacity. The containment capacity of the pipe is 427 gallons. The new total containment capacity is 6,151 gallons which is greater than 10% of the permitted storage volume of 12,749 gallons. Containment calculations are provided in Appendix C.

The floor has no intentional sloping. Any small spill would puddle where it was spilled. The spilled material would be cleaned up where it puddles or be manually directed to the containment trench. In the event that a large spill were to occur, some dispersion would be expected to occur based on the direction, force, and pathway obstacles presented by and to the spill. Only in the event that the spill were to exceed the containment capacity of the trenches would spilled wastes be able to extend beyond the containment areas. Once outside the containment area, the wastes would continue to be on concrete surfaces. These are the same concrete surfaces that serve to protect soils and ground water from contamination due to spills occurring during loading/unloading.

Rainwater which may accumulate in the south containment area does not come in contact with hazardous materials. Rainwater accumulated in the south containment area which does not evaporate within 24 hours will be discharged directly to the ground surface (provided that no discharge to the secondary containment from the fire suppression system has occurred since the previous emptying, and provided there is no sheen on the water). In the unlikely event the building's sprinkler system is activated and overflow from the building's secondary containment is discharged to the southern portion of the south containment area, the overflow, which may have come in contact with hazardous materials, will be containerized and handled appropriately.

In most cases, any spills in the flammable storage area would not impact the south containment area. As such, contamination of storm water is not expected. However, if hazardous materials contact the south containment area, it must be decontaminated before direct discharge of this water is resumed.

The containment areas have been coated with Sikagard® 62 or equivalent. Other coatings may be used in the future and will be evaluated by Safety-Kleen to ensure, when properly applied, they are capable of withstanding the products handled by Safety-Kleen. Inspections of the sealant in the containment areas will be conducted as part of the daily facility inspection plan.

#### Container Movement

In the container storage area, containers are handled with a hand-truck or forklift that is free of sharp points. Every time a drum is moved, a chance exists that it will be tipped over, dropped, or punctured. To minimize the possibility of spillage, containers are tightly covered and kept in an upright position. A small portable electric pump is available to quickly transfer the liquid from any leaking container into another safe container. Each route truck is equipped with a lift-gate or an electric hoist. These devices are used in the loading/unloading operation to minimize chances for spillage

and/or employee injury. With the exception of parts washer solvent, drummed wastes are loaded/unloaded from the trucks at the docks located on the eastern side of the south and north buildings. The parts washer solvent is loaded/unloaded at the return/fill station. Wastes may be transferred from the north to the south building using hand carts or forklifts. This transfer process will utilize the garage doors on the western side of the north and south buildings.

All containers are transported, moved, and stored carefully in an upright position.

Containers are palletized whenever possible to facilitate shipping and storage. Pallets may be stacked up to seven feet, or two high (whichever is higher), while in storage.

This will prevent the containers from contacting standing liquid while they are in storage. Pallets may be shipped up to three high during transportation. The containers will be arranged so that a two-foot aisle space exists between all rows of pallets such that all containers can be readily visible for inspection and handling.

#### INCOMPATIBLE, IGNITABLE, AND REACTIVE WASTE MANAGEMENT

All materials are managed in accordance with the local fire protection code and fire department recommendations. All ignitable wastes are stored at least 50 feet from the property line.

The facility does not routinely manage unwashed containers that may previously have held materials that would be incompatible with wastes stored at the facility. Also, the used parts washer solvents and used aqueous parts washer solvents consist of materials that are compatible and suitable for bulking.

#### Procedure for Managing Waste Types

The solvents stored at this facility are typically compatible with each other and with other materials handled at this facility. In some isolated instances, special waste segregation

procedures may be necessary at this facility. Wastes are stored primarily in polyethylene and steel containers. Immersion cleaner, dry cleaning, paint waste, and FRS waste containers are never opened at the Branch. Overpack containers are used for the management of containers whose integrity has been compromised. For ease of inventory control and product integrity, separation and grouping of both used and unused solvents is a standard practice at the Branch. All containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications.

#### **Potential Fire Sources**

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

- All wastes and products are kept away from ignitable sources Personnel must
  confine smoking and open flames to the Branch designated area which is located
  outside the front door of the office area. No other smoking areas are designated.
  The parts washer solvent handling area and the aboveground storage tanks are
  separate from the warehouse area to minimize the potential for a fire to spread or
  injury to personnel to occur.
- 2. Ignitable wastes are handled so that they do not:
  - become subject to extreme heat or pressure, fire, explosion, or a violent reaction – The parts washer solvent waste is stored in a tank or in containers, none of which are near sources of extreme heat, fire, potential explosion sources, or subject to violent reactions. The tanks are vented and the containers kept at room temperature to minimize the potential for pressure build-up.
  - produce uncontrolled toxic mists, fumes, dusts or gases in quantities sufficient to threaten human health The vapor pressure of petroleum-based parts washer solvent is low (2 mm Hg) and it is reactive with strong oxidizers only. Toxic mists, fumes, dusts, or gases will not form in quantities sufficient to threaten human health since strong oxidizers

- are carefully segregated at this facility and the solvent vaporization will be minimal under normal working conditions.
- produce uncontrolled fires or gases in quantities sufficient to pose a risk of fire or explosion – See above and below.
- damage the structural integrity of the Safety-Kleen facility The solvents stored at this facility will not cause deterioration of the tank, containers, or other structural components of the facility.
- 3. Adequate aisle space is maintained to allow the unobstructed movement of personnel, fire protection equipment, and decontamination equipment to any area of the facility operation in an emergency.
- 4. "NO SMOKING" signs are posted in areas where solvents are handled or stored.
- 5. Fire extinguishers are checked weekly by Branch personnel.

#### **External Factors**

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump switches are located inside. Also, the container storage area is in a building which is inaccessible to unauthorized personnel.

- Vandalism Only extreme vandalism would result in a solvent spill or fire.
   Responses to spills and fires are described in the Contingency Plan (Section 5)
- 2. Strikes A strike would not result in a solvent spill or fire.
- 3. *Power Failure* A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.
- 4. Flooding The site elevation is above the projected 100-year floodplain.
- 5. Storms or Cold Weather The solvent return/fill station is covered to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or storm weather.

#### **CONTAINER MANAGEMENT**

#### General Protocols

Container management is of paramount importance to Safety-Kleen. All containers are routinely inspected to ensure that the containers are in good condition. If rusting or structural defects are visible, or if the container begins to leak, the contents of the container are immediately transferred to a new sound container. Overpack containers are commonly used for the management of containers whose integrity has been compromised.

Hazardous waste containers are always kept closed during storage except when adding or removing waste. Containers are not handled or stored in a manner that could potentially cause a rupture or leak.

#### Specific Waste Stream Containers

Parts washer solvent is collected in containers and generally emptied into the wet dumpster at the return/fill station (which is piped to the tank farm). The containers are designed and constructed to be compatible with the stored material and to minimize the possibility of breakage and leaking, in accordance with DOT shipping container specifications.

The immersion cleaner is always contained in partially filled covered containers before, during, and after its use. Until received at the recycle center, the immersion cleaner is never transferred to another container. The containers of used immersion cleaner are returned to the facility and stored in the designated container storage area before shipment to a Safety-Kleen recycle center.

Dry cleaning waste is stored in steel or polyethylene containers and consists of perchloroethylene-based waste and naptha-based waste. The contents of the dry cleaning waste containers are not removed or processed at the Tampa Branch. It is stored as permitted waste prior to shipment to a Safety-Kleen recycle center.

Paint wastes consist of various lacquer thinner and paints. The waste is collected in containers at the customer's location and the containers are then stored in the container storage area of the warehouse. The paint wastes are managed as permitted wastes.

FRS wastes are stored in steel or polyethylene containers that are compatible with the material in them. FRS wastes are managed as transfer wastes.

As part of its protocol for handling mercury-containing lamps and devices destined for recycling, the Branch provides customers with four-foot and eight-foot boxes which hold up to 39 lamps. Other DOT approved containers are used for mercury devices. Boxes are inspected prior to transport from the customer to the Branch. Boxes containing broken lamps are not accepted by Safety-Kleen. If the lamps are broken while in the custody of Safety-Kleen, the entire contents of the box are sealed in plastic shrink wrap or transferred to another container and closed. The boxes are picked up at customer locations and are stored at the Branch in a designated area within the container storage area (Figure 8.1-1). The boxes used to store mercury-containing lamps and devices are labeled in accordance with Florida Administrative Code (FAC) 62-737.400(5)(b). The boxes are periodically shipped to a permitted mercury recovery or reclamation facility.

#### **CONTAINER INSPECTION**

The purpose of the container inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation, maintain compliance, and prevent the release of hazardous wastes to the environment. The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste

management facilities in accordance with the following procedure and schedule.

An example of the Daily Inspection Log for the container storage area and associated loading/unloading areas is presented in Figure 8.4-1. This Daily Inspection Log, or equivalent, will be used during daily inspections. Daily container storage area inspections include the following:

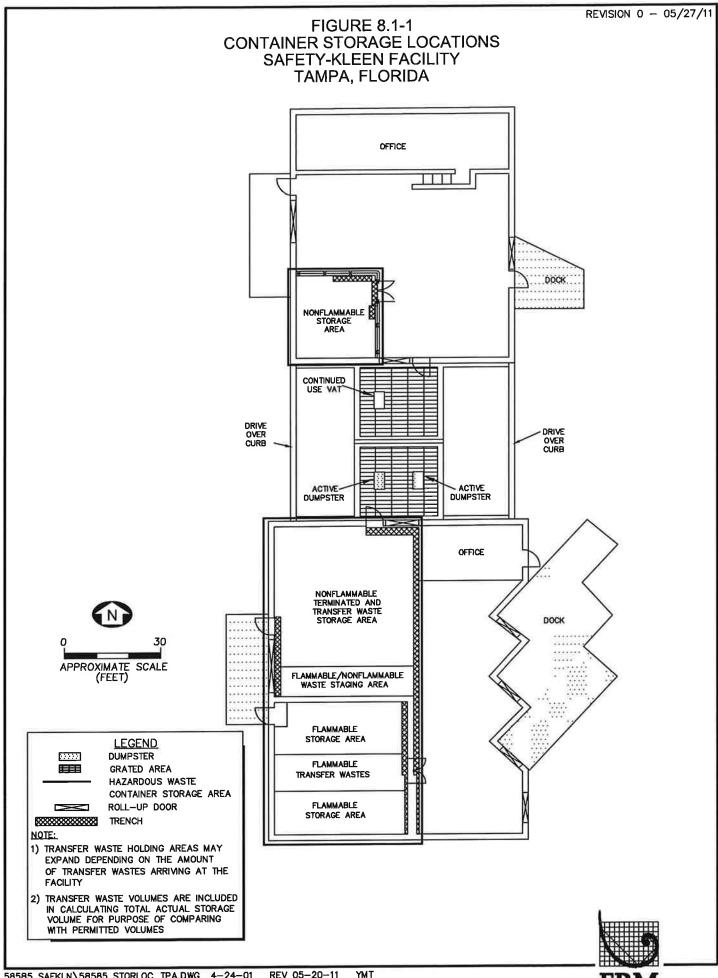
- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection;
- Verify that all container identification, dates, and hazardous waste labels are attached and current;
- inspect container placement and stacking such as aisle space, height, and stability of stacks; and
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

As deficiencies are detected, the Branch Manager will ensure that they are remedied promptly. Any deficiencies which could create an environmental or human health hazard will be rectified immediately.

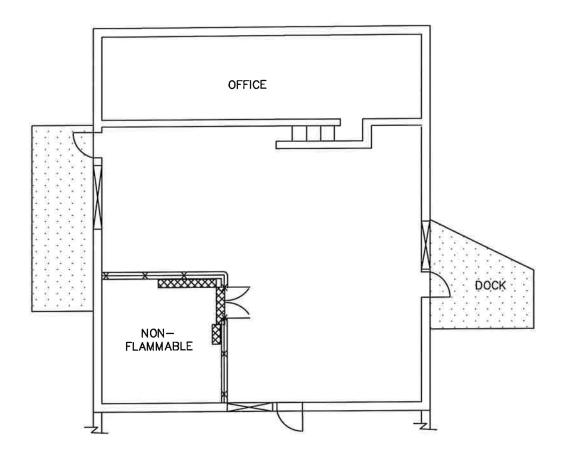
Other inspections at the facility include those performed on a weekly basis for the security systems. These inspections are described in the contingency plan.

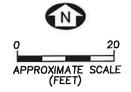
#### CONTAINER STORAGE AREA CLOSURE PLAN

The container storage area closure plan and closure cost estimates are provided as part of the overall closure plan for the facility in Part II K.



#### FIGURE 8.1-2 CONTAINER STORAGE AREA (NORTH BUILDING) SAFETY-KLEEN FACILITY TAMPA, FLORIDA





<u>LEGEND</u>

 $\sim$ 

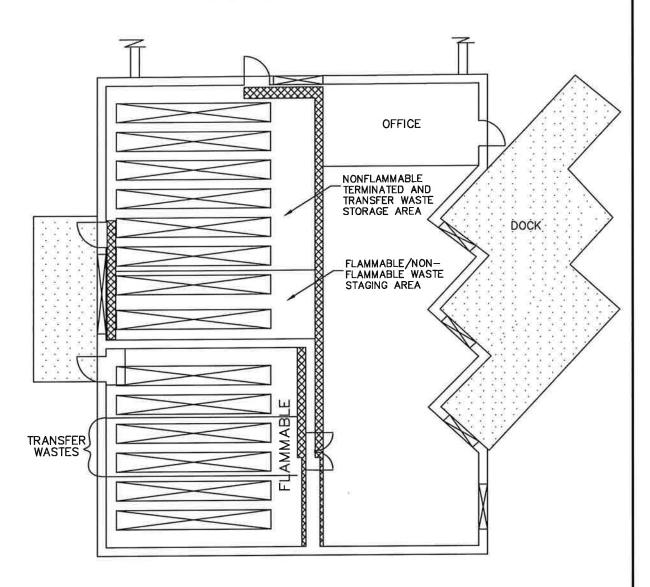
ROLL-UP DOOR

TRENCH



ERM.

#### FIGURE 8.1-3 CONTAINER STORAGE AREA (SOUTH BUILDING) SAFETY-KLEEN FACILITY TAMPA, FLORIDA



#### **LEGEND**

R

ROLL-UP DOOR

**TRENCH** 

><

ROWS OF CONTAINERS

NOTE:

- 1) TRANSFER WASTE HOLDING AREAS MAY EXPAND DEPENDING ON THE AMOUNT OF TRANSFER WASTES ARRIVING AT THE FACILITY
- 2) TRANSFER WASTE VOLUMES ARE INCLUDED IN CALCULATING TOTAL ACTUAL STORAGE VOLUME FOR PURPOSE OF COMPARING WITH PERMITTED VOLUMES

## INSPECTION SHEET FOR:

Figure 8.4-1

Daily Inspection of CONTAINER STORAGE AREA
(A separate log must be completed for each storage area)

DESCRIPTION OF AREA: <u>Tampa - South Building / Area 2</u> PERMITTED STORAGE VOLUME: <u>41,200 gallons</u>

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
	nit: Init: Date: Date: Time: Time:		Init:	Init:	Init:	Init:	Init:	
	Date:	Date:	Date:	Date:	Date:	Date:	Date:	
	Time:	Init: Init: Init: Date: Date: Time: Time: Time: Time: Time: Time: Thursday Wednesday Thursday Thursday Wednesday Thursday A N A N A N A N A N A N A N A N A N A	Time:	Time:	Time:	Time:		
Containers	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunda	
Total Volume of 30 gal Oil Filters								
Total Volume of 55 gal Oil Filters								
Total Volume of ** Waste								
Total Volume of ** Waste								
Total Volume in Gallons								
Item	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Total Volume	A N	A N	A N	A N	A N	A N	A N	
"N", circle the appropri	iate problem: total	volume exceeds th	e amount for which	the facility is permi	tted, other.		The Singer	
Condition of Containers	A N	A N	A N	A N	A N	A N	A N	
f "N", circle the appropri	iate problem: <u>miss</u>	sing or loose lids, m	issing, incorrect, or	imcomplete labels,	rust, leaks, other.			
Stacking/ Placement/ Aisle Space	A N	A N	A N	A N	A N	A N	A N	
"N", circle the appropri	iate problem: diffe	rent from Part B Flo	or Plan, containers	not on pallets, uns	able stacks, broke	n or damaged pallet	s, other.	
			Conta	inment				
ltem	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunda	
Curbing, Floor, and Sumps	A N	A N	A N	A N	A N	A N	A N	
"N", circle the appropri	iate problem: pond	ding/ wet spots, dete	erioration (cracks, ga	aps, etc.), displace	ment, <u>leaks, distor</u>	tion, other.		
Loading/ Unloading Area	A N	A N	A N	A N	A N	A N	A N	
f "N", circle the appropri	iate problem: crac	ks, ponding/ wet sp	ots, deterioration, of	ther.				
DBSERVATIONS, CO	OMMENTS, DA	TE, AND NATUR	E OF REPAIRS T	O ANY ITEMS IN	DICATED AS "	NOT ACCEPTAB	LE":	
-								
		Δ	= Acceptable	N = Not Accepta	able			

#### **INSPECTION SHEET FOR:** Figure 8.4-1 Daily Inspection of CONTAINER STORAGE AREA - PAGE# 1 OF 3

(A separate log must be completed for each storage area)

Init:

Thursday

Friday

Init:

Saturday

Init:

DESCRIPTION OF AREA: Tampa - South Building (Non Flammables) Warehouse

PERMITTED STORAGE VOLUME: 38,000 gallons

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature:

Init:

Wednesday

Tuesday

Init:

Monday

				+	
Date:	Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time:	Time:
Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			-3		
Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
A N	A N	A N	A N	A N	A N
volume exceeds the	amount for which the	facility is permitte	ed, other.	-	
A N	A N	A N	AN	A N	A N
ng or loose lids, mis	sing, incorrect or inco	omplete labels, rus	t, leaks, other.		
A N	A N	A N	A N	A N	A N
	ng or loose lids, miss	A N A N ent from Part B Floor Plan, containers no	ng or loose lids, missing, incorrect or incomplete labels, rus	A N A N A N A N  ent from Part B Floor Plan, containers not on pallets, unstackable pallets, brok	A N A N A N A N A N  ent from Part B Floor Plan, containers not on pallets, unstackable pallets, broken or damaged pallets

Item	Moi	nday	Tue	sday	Wedn	esday	Thur	sday	Fri	day	Satu	ırday	Sur	iday
Curbing, Floor, and Sump(s)	Α	N	А	N	А	N	Α	N	A	N	Α	N	Α	N
f "N", circle the appropriate	problem	: ponding	/ wet spot	s, <u>deterio</u>	ration (cra	cks, gaps	<u>, etc.), dis</u>	splaceme	ent, <u>leaks,</u>	distortion	other.			
Loading/ Unloading Area	A	N	A	N	A	N	A	N	A	N	A	N	A	N

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF REPAIRS TO ANY ITEMS INDICATED AS "NOT ACCEPTABLE":

Sunday

Init:

<sup>\*</sup> When calculating total volume, assume the containers are full.

#### Daily Inspection of CONTAINER STORAGE AREA - PAGE# 2 OF 3

(A separate log must be completed for each storage area)
DESCRIPTION OF AREA: Tampa - South Building Flammable Storage Area
PERMITTED STORAGE VOLUME: 12,749 gallons

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Init:	Init:	Init:	Init:	Init:	Init:	Init:
	Date:	Date:	Date:	Date:	Date:	Date:	Date:
	Time:	Time:	Time:	Time:	Time:	Time:	Time:
Containers	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Total Volume of BR Debris #16001							
Total Volume of FRS (Flammable)							
Total Volume of 5 gal Paint Waste							
Total Volume of 16 gal Paint Waste							
Total Volume of 30 gal Paint Waste							
Total Volume of 55 gal Paint Waste							
Total Volume of 5 gal Paint Product							
Total Volume of 16 gal Paint Product							
Total Volume of 30 gal Paint Product							
Total Volume of 55 gal Paint Product							
Total Volume of 5 gal Brake Cleaner							
Total Volume of 55 gal Brake Cleaner							
Total Volume of 5 gal Penetrant							
Total Volume of 55 gal Penetrant		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Total Volume of 5 gal WWF							
Total Volume of Product in Gallons							
Total Volume of Waste in Gallons							
ltem	Monday_	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Total Volume	A N	AN	A N	A N	A N	AN	AN
If "N", circle the appropriation of Containers	AN	AN	AN	AN	AN	A N	A N
If "N", circle the appropr	ate problem: mis	sing or loose lids, n	nissing, incorrect or	incomplete labels,	rust, leaks, other.		
Stacking/ Placement/ Aisle Space	A N	A N	A N	A N	A N	A N	A N
If "N", circle the appropr	riate problem: <u>diff</u>	erent from Part B FI			stackable pallets, b	roken or damaged p	allets, other.
lia	Menday	Tuesday		AINMENT	Friday	Saturday	Sunday
Item	Monday	Tuesday	Wednesday	Thursday	riuay	Jaiuruay	Junuay

						CONT	AINMENT							
Item	Mor	nday	Tue	sday	Wedr	esday	Thu	rsday	Fri	day	Satu	ırday	Sur	nday
Curbing, Floor, and Sump(s) If "N", circle the appropria	A ste proble	N	A	N nots dete	A Prioration (	N cracks o	A aps. etc.)	N	A ment. leak	N s. distort	A ion, other.	N	Α	N
Loading/ Unloading Area	A	N	А	N	A	N	A	N	A	N	A	N	A	N
If "N", circle the appropria	te proble	em: crac	ks, ponding	y/ wet sp	ots, deterio	oration, o	ther.	EL BITALL	I IV SV S		S SHOW	11 = 30 I W	RUTEATE	- 011

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF REPAIRS TO ANY ITEMS INDICATED AS "NOT ACCEPTABLE": \_\_\_

<sup>\*</sup> When calculating total volume, assume the containers are full.

 $\textbf{A} = \text{Acceptable} \quad \textbf{N} = \text{Not Acceptable}$  (If an item is not applicable, enter N/A after it and draw a line through the Acceptable/Not Acceptable row

Page 7

# INSPECTION SHEET FOR: Figure 8.4-1 Daily Inspection of CONTAINER STORAGE AREA - PAGE# 3 OF 3

(A separate log must be completed for each storage area)

DESCRIPTION OF AREA: Tampa - North Building Storage Area (Product Only)

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature: \_\_\_\_

Tuesday Wednesday Thursday

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Init:	Init:	Init:	Init:	Init:	Init:	Init:
Date:	Date:	Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time:	Time:	Time:

Friday

Saturday

Sunday

Containers	191011	luay	1 40	Suuy	Would	coduj	THA	ouuy		luuj				
Total Volume of Clean SK# 50 I.C. Product														
Total Volume of Clean SK# 699 I.C. Product														
Total Volume of Clean I.C. Product in Gallons														
Item	Mon	ıday	Tue	sday	Wedr	esday	Thu	rsday	Fr	iday	Satı	ırday	Sur	nday
Total Volume	Α	N	А	N	Α	N	Α	N	Α	N	A	N	Α	N
f "N", circle the appropriate	problem:	total vol	lume exce	eds the a	amount for	which the	facility is	<u>permitte</u>	d, other.					
Condition of Containers	Α	N	A	N	A	N	A	N	A	N	A	N	A	N
f "N", circle the appropriate	problem:	missing	or loose I	ids, miss	ing, incorre	ect or inco	omplete la	bels, rust	leaks, o	ther.	Man 7	Man f	HI ION	Mark Mark
Stacking/ Placement/ Aisle Space	Α	N	А	N	Α	N	А	N	А	N	А	N	Α	N
If "N", circle the appropriate	problem:	different	t from Par	t B Floor	Plan, cont	ainers no	t on pallet	s, <u>unstac</u>	kable pall	ets, broke	en or dama	iged palle	ets, other.	
						Conta	inment							

#### Containment

Item	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Curbing, Floor, and Sump(s)	Α	N	Α	N	Α	N	А	N	А	N	Α	N	A	N
If "N", circle the appropriate	problem	: ponding/	wet spots	, <u>deterio</u>	ration (cra	cks, gap	s, etc.), di:	splaceme	ent, <u>leaks</u> ,	<u>distortion</u>	other.			
Loading/ Unloading Area	Α	N	A	N	A	N	A	N	A	N	A	N	A	N
If "N", circle the appropriate	problem	cracks,	onding/ w	et spots.	deteriora	tion, othe	r.		Salva					AP CALLY

OBSERVATIONS, COMMENTS, DATE, AND NATURE OF REPAIRS TO ANY ITEMS INDICATED AS "NOT ACCEPTABLE":

Containers

A = Acceptable N = Not Acceptable

(If an item is not applicable, enter N/A after it and draw a line through the Acceptable/Not Acceptable row

<sup>\*</sup> When calculating total volume, assume the containers are full.

#### Part II

#### C. TANK SYSTEM

#### ASSESSMENT OF TANK SYSTEM

An assessment of the hazardous waste tank system was last conducted in April, 2001. An assessment of the hazardous waste tank system is scheduled to be completed in May, 2011 and will be forwarded to the FDEP when completed.

A fabric canopy system manufactured by Rubb Building Systems is installed at the facility to cover the three aboveground storage tanks. Manufacturer's information regarding the fabric canopy was submitted in a previous permit application and is on file with FDEP.

#### TANK SYSTEM SPECIFICATIONS

The facility includes three aboveground steel tanks (Figure 9.2-1). Used parts washer solvent is returned from Safety-Kleen's customers in containers and the solvent is transferred via the wet dumpsters into a 15,000-gallon tank, prior to bulk shipment to a Safety-Kleen recycle center. The other two tanks, both 15,000-gallon tanks, are used to store fresh 150 Premium parts washer solvent and used oil, and are, therefore, not considered RCRA hazardous waste tanks.

#### Material Compatibility

Waste stored in the RCRA tank at this facility is used parts washer solvent. The parts washer solvent is compatible with the mild steel tank structure. As with all petroleum storage vessels, water will accumulate over time due to condensation and the addition of aqueous parts washer solvent and aqueous brake cleaner. The aqueous parts washer solvent and aqueous brake cleaner have a specific gravity less than water and the water will accumulate in the bottom of the tank.

#### Tank Operation Procedures and Design

Used solvent is returned from customers via containers and poured into the wet dumpsters which have barrel washers enclosed within them. The container is then placed on roller brushes within the barrel washer. As the machine is turned on, the container rotates on the brush and the outside of the container is cleaned. A nozzle in the barrel washer sprays a stream of solvent into the bottom of the container to flush the inside of the container. The machine is then turned off and the container is removed. This process takes several seconds per container. The container is then refilled with clean solvent using a pump and nozzle assembly similar to a gasoline dispenser. The waste is transferred to the tank via piping and a pump.

The used solvent is fed to a sump in the bottom of the wet dumpster and automatically pumped to the used parts washer solvent storage tank. A basket within the sump collects sludge from the cleaning operations. Periodically, this basket is removed and sludge is removed and placed into a sludge drum for disposal. The wet dumpsters are located in the return/fill station, which is underlain by a secondary containment structure.

The used solvent storage tank is designed and constructed to be compatible with the materials stored. The tank is vented in accordance with National Fire Protection Association (NFPA) standards, and is equipped with a high-level alarm. The tank seams are lapped with full fillet welds. The weld was performed with an E70 electrode and can withstand a 4-psi air pressure test (which is performed by the manufacturer). The used solvent tank was installed new in 1985. The tank is aboveground, supported on an 6-inch metal skid placed on the 6-inch concrete foundation slab. Therefore, no surface run-on will contact the wastes stored at the site and no run-off collection system is required. To minimize the amount of precipitation that may collect inside the containment area, a canopy has been installed over the tank farm. If rainwater does accumulate in the containment area and it has been verified that no spill has occurred, the rainwater will be discharged to the ground surface. Only the Branch Manager or someone operating under

his/her direct orders may discharge to the ground surface. If it is not possible to verify that a spill has not occurred, the rainwater will be disposed of in the wet dumpsters.

#### Controls and Spill Prevention

The tank farm dike and the return/fill station have been sealed with a chemical resistant coating. Level gauges are used to measure liquid levels in tanks. Float switch-activated automatic high level alarms (which consist of a strobe light and siren) signal the tank's being 95% full. This alarm allows an operator more than two minutes to stop operations and avoid overfilling the tank. The gauges of the tank are read before filling the tank with additional material. Tank level readings are also taken prior to the filling of a tanker truck to prevent overfilling of the truck or tank. A tanker truck provided with a suction pump is used to withdraw used parts washer solvent from the tank. No other equipment or standby equipment is used in the operation of the above-ground tanks. The tank should be operated at a maximum volume of 14,250 gallons (95% of capacity). The secondary containment under the tanks and return/fill station is cleaned within 24 hours of a spill, or in as timely a manner as possible, to prevent harm to human health and the environment.

#### TANK SYSTEM SECONDARY CONAINMENT

#### Tank Containment

All tanks are aboveground, underlain by a 49'5" x 18'5" concrete slab, surrounded by a 3.9' high concrete walls. No surface run-on or precipitation will contact the wastes stored in the tank, and no run-off collection and management system is required. A fabric canopy system installed over the tank farm greatly reduces any chance of precipitation accumulation inside the containment area. The layout of the tank farm is shown in Figure 9.2-1. Containment calculations are provided in Appendix C.

The containment system in the tank farm has been coated with Sikagard® 62 or

its' equivalent, and is free of cracks and is sufficiently impervious to prevent seepage into and through the concrete. Concrete is fully compatible with the waste stored.

#### Return/Fill Containment

The return/fill station is a 50' x 80' structure (Figure 9.3-1) located between the north and south buildings. It contains two wet dumpsters which handle the flow of solvent to the tank. These dumpsters are not intended for storage but can hold a maximum of 1,008 gallons (504 gallons per dumpster).

The area is designed such that the route trucks can be backed into the containment area. The roof extends over the truck unloading area so that no precipitation can get into the return/fill station containment area. The containment for the return/fill station is provided by four areas. The south dumpster area of the return/fill station has a capacity of 1,325 gallons which exceeds the storage capacity of the two dumpsters (504 gallons per dumpster) located in the area. The containment calculations are presented in Appendix C.

#### TANK SYSTEM INSPECTIONS

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. The Branch Manager or that person's designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Figure 9.4-1 is an example Daily Inspection Log for the tank system. This Daily Inspection Log, or equivalent, will be used during daily inspections. Daily inspections of the tank and dumpsters will consist of the following:

• Note volume in tank.

- Observe tank exterior for loose anchoring, wet spots, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tank to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop in liquid level, which may indicate leakage.
- Inspect secondary containment walls and piping.
- Inspect transfer pumps for leaking seals and overheated motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for evidence of leaking. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically. The period of time between tank inspections, including shell thickness testing, will not exceed ten years. This time frame for tank inspection is adequate based on Safety-Kleen's experience at its other facilities in Florida.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

#### TANK SYSTEM CLOSURE AND CONTINGENT POST-CLOSURE PLAN

The tank system closure plan is provided as part of the overall closure plan for the facility in Part II K. As discussed below, a contingent post-closure plan for the tanks is not required.

#### TANK SYSTEM CONTIGENT POST-CLOSURE PLAN

The tank system at the Tampa facility meets the secondary containment requirements of 40 CFR 264.193, and is, therefore, not required to have a contingent post-closure plan under 40 CFR 264.197(c). In addition, Safety-Kleen intends to remove or decontaminate all tank system components, associated containment systems, and contaminated soils (if any) at the time of closure. However, should future conditions indicate that all contaminated soils and tank system components cannot practicably be decontaminated or removed, then a plan to perform post-closure care in accordance with the post-closure care requirements that apply to landfill (40 CFR 264.310) will be prepared for implementation upon FDEP approval.

### RESPONSE TO LEAKS AND DISPOSITION OF UNFIT-FOR-USE TANK SYSTEMS

In the event that a leak or spill were to occur from a tank system or secondary containment system, the actions identified herein will be undertaken.

#### Immediate Response

All waste flow to the tank system in question will be ceased immediately. An inspection will be undertaken to identify the cause of the release. Waste flow to the tank system will not resume until the tank system has been inspected, repaired, and declared fit for use. In order to prevent further release, or to allow inspection and a repair of the system, it may be necessary to remove the waste from the tank system. This waste removal will occur within 24 hours after detection of the leak, or at the earliest practicable time. All material released to the secondary containment area will be removed within 24 hours, or in as timely a manner as possible, to prevent harm to human health and the environment. Every reasonable effort will be made to prevent migration of the release to soils or surface water. If necessary, visible contamination of surface water and soil will

be removed and properly disposed of

#### **Notifications**

If a spill is less than one pound and is immediately contained and cleaned up, no notifications are required. All other releases require notification as described in the Contingency Plan.

#### Subsequent Reporting

Within 30 days of detection of a release to the environment, a report must be submitted to the Regional Administrator and FDEP. The report must contain the following information:

- 1. Likely route of migration of the release.
- 2. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate).
- 3. Results of any monitoring or sampling conducted in connection with the release. If sampling has occurred and sampling results are not available within 30 days, the results must be submitted as soon as available.
- 4. Proximity to downgradient drinking water, surface water, and populated areas.
- 5. Description of response actions taken or planned.

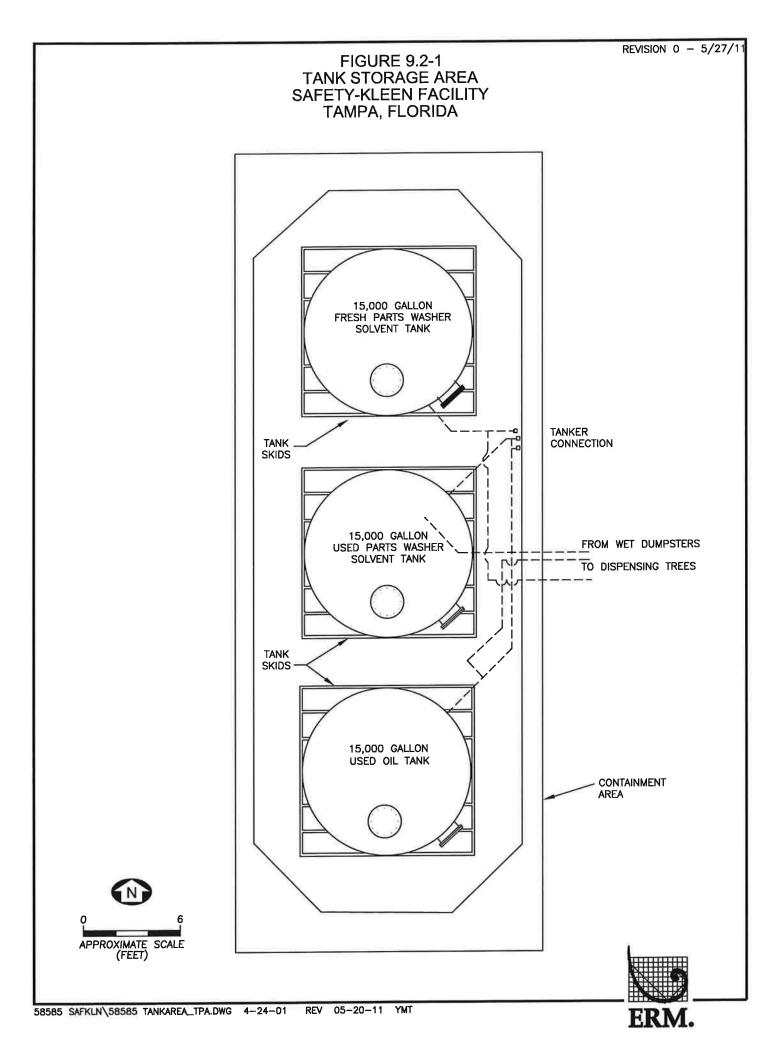
#### Repair or Closure

If the integrity of the containment system has not been damaged, the system may be returned to service as soon as the released waste is removed and repairs, if necessary, are made. If the tank was the source of the release, the tank must be repaired prior to returning the tank system to service. If the release was from a tank system component which did not have secondary containment, then secondary containment must be provided for this component before the system can be returned to service. The exception

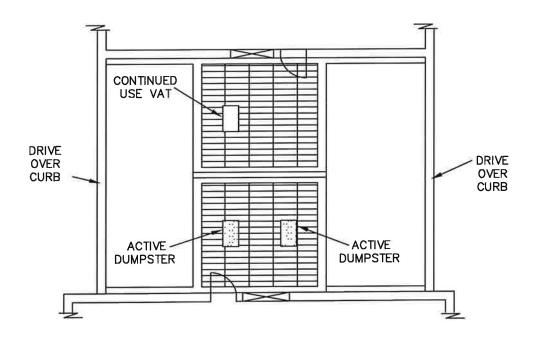
to this is if the component can be visually inspected. In this instance, the component may be repaired and returned to service. If a component is replaced, the component must satisfy the requirements for new tank systems and components.

All major repairs must be certified by an independent, registered, professional engineer in accordance with 40 CFR 270.11(d). The engineer must certify that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This report must be filed with the Agency within seven days after returning the tank system to use.

If repairs that meet these requirements cannot be performed, the tank system must be closed in accordance with the closure plan.



#### FIGURE 9.3-1 RETURN/FILL STATION SAFETY-KLEEN FACILITY TAMPA, FLORIDA



#### <u>LEGEND</u>

DUMPSTER



ROLL-UP DOOR

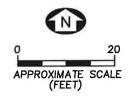




Figure 9.4-1

## INSPECTION SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Init:	Init:	Init:	Init:	Init:	Init:	Init:
Date:	Date:	Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time;	Time:	Time:

#### **Storage Tanks**

(Tanks must never be more than 95% full)

Tank	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Dirty MS Tank (in) x54							
Used Oil Tank (in) x54 (EMPTY)							
Clean Premium Tank (in) x54							
Clean Premium on the Dock							
ltem	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Tank Exterior	A N	A N	A N	A N	A N	A N	AN
f "N", circle the appropriate	e problem: rusty o	r loose anchoring.	ack of grounding, we	et spots, discolorat	ion, leaks, distortion	, other.	
High Level Alarms	A N	A N	A N	AN	A N	A N	A N
f "N", circle the appropriate	e problem: malfun	ctioning "Power On	" light, malfunctionin	g siren/strobe light	, <u>other</u> .		
Volume Gauges	A N	AN	AN	AN	A N	A N	AN
f "N", circle the appropriate	e problem: discon	nected, sticking, co	ndensation, other.				AVE LIBERT

#### **Containment Area (Tank Dike)**

Any Material which spills, leaks, or otherwise accumulates in the dyke, including rainwater, must be completely removed within 24 hours

Item	Mon	day	Tues	sday	Wedn	esday	Thur	sday	Fri	day	Satu	ırday	Su	nday
Bottom and Walls	Α	N	А	N	Α	N	Α	N	Α	N	Α	N	А	N
f "N", circle the appropriate lisplacement, leaks, other.	problem	ı: <u>cracks</u> ,	debris in	dyke, op	en drums	in dyke, p	onding/we	et spots, s	stains, sea	lant is pit	ted, crack	ed or chi	oped, det	eriora <u>tior</u>
Rigid Piping and Supporters	А	N	А	N	A	N	A	N	А	N	A	N	A	N

OBSERVATIONS,	COMMENTS, D	ATE, AND N	ATURE OF	REPAIRS TO	ANY ITEMS	INDICATED.	AS "NOT	ACCEPTA	BLE":

Figure 9.4-1

### INSPECTION SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature: \_\_\_\_

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Init:	Init:	Init:	Init:	Init:	Init:	Init:
Date:	Date:	Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time:	Time:	Time:

Transfer Pumps and Hoses

Itam	Mor	day	Tuo	sday	Wedne			sday		day	Satu	rday	Sur	day
Item	IVIOI	day	Tues	suay	vveune	Suay	Tilui	Suay	, , , ,	Jay	Jata	ruay	- Our	luuy
Pump Seals	Α	N	A	N	A	N	Α	N	Α	N	Α	N	A	N
f "N", circle the appropria	ate proble	em: <u>leak</u>	s, other.		1						I commence			
Motors	A	N	A	N	A	N	A	N	A	N	A	N	Α	N
f "N", circle the appropria	ate proble	em: <u>over</u>	heating, ot	her.		ат-удх.			100V		188	120 50		1934
Fittings	Α	N	Α	N	A	N	Α	N	A	N	A	N	A	N
f "N", circle the appropri	ate proble	m: <u>leak</u>	s, other.											
Valves	A	N	A	N	A	N	A	N	A	N	A	N	A	N
f "N", circle the appropria	ate proble	m: <u>leak</u>	s, sticking,	other.										Fe M
Hose Connections, and Fittings	Α	N	А	N	A	N	Α	N	A	N	A	N	А	N
f "N", circle the appropria	ate proble	em: <u>crac</u>	ked, loose,	leaks, o	other.									107 LT 24
Hose Body	A	N	A	N	A	N	Α	N	Α	N	A	N	A	N
f "N", circle the appropria	ate proble	m: crus	hed, thin s	pots, lea	ks, other.	LE COL		HAVE 53.0	201 275	E 20 5		P2. 27 PE	1, 25,0	88/4

ltem	Mor	nday	Tues	sday	Wedn	esday	Thu	sday	Fri	day	Satu	ırday	Sur	day
Wet Dumpster	A	N	A	N	А	N	Α	N	A	N	Α	N	A	N
If "N", circle the appropri	ate probl	em: <u>sedi</u> r	nent build	up, <u>leaks</u>	rust, split	seams, c	<u>listortion,</u>	deteriora	ition, exce	ss debris	other.			
Secondary Containment	A	N	A	N	А	N	A	N	A	N	A	N	A	N
If "N", circle the appropri other.	ate probl	em: <u>malf</u>	unctioning	"Power 0	On" light, n	nalfunctio	ning sirer	/strobe li	ght, sedim	ent/liquid	d, leaks, de	eterioratio	n, excess	debris.
Loading/ Unloading Area	Α	N	А	N	А	N	Α	N	А	N	A	N	A	N
If "N", circle the appropri	ate probl	em: <u>cracl</u>	ks, ponding	g/wet spo	ts, deterio	ration, ot	<u>ner</u> .				10			

OBSERVATIONS	, COMMENTS, DAT	E, AND NATURE OF	KEPAIKS TO ANT THE	ENIS INDICATED AS INC	ACCEPTABLE .

#### Part II

#### J. FACILITY DATA

- 1. Waste Management Facility Descriptions
  - a. Aboveground Storage Tank: The tank is a 15,000-gallon vertical steel tank used for the storage of used parts washer solvent. This tank is located within a containment system consisting of a 49'5" x 18'5" foundation slab with 3.9' perimeter walls.
  - b. Solvent Return/Fill Station: The station is a 50' x 80' concrete portion of the building located between the north and south buildings. It contains two wet dumpsters and a Continued Use Vat. The two active dumpsters are used to receive returned solvent from containers and pump it to the used parts washer solvent tank. These dumpsters are not intended for storage but can hold a maximum of 1,008 gallons (504 gallons each).
  - c. Container Storage Area: The north container storage area has a concrete floor with three containment trenches with a combined containment capacity of 520 gallons. The maximum storage capacity is 5,200 gallons (this area is not currently in use and the FDEP will be notified prior to placing waste into this area). The south building nonflammable storage area has a concrete floor with two trenches with a combined capacity of 4,122 gallons. The maximum storage capacity is 41,220 gallons. Waste allowed for storage is immersion cleaner, dry cleaning solvent, parts washer solvent (non-flammable), oil filter containers, and non-regulated containers.

d. Flammable Container Storage Area (room): The flammable container storage area has a concrete floor with one containment trench, which leads to a secondary containment structure that is located at the southwest corner of the building. The containment trench capacity is 660 gallons, the pipe to the secondary containment structure capacity is 427 gallons, and the secondary containment structure is 5,064 gallons for a total containment capacity of 6,151 gallons. The maximum storage capacity is 12,749 gallons. Wastes stored in this area are paint wastes and all other flammable waste containers.

#### 2. Maximum Inventory of Wastes

- a. Used Parts Washer Solvent: 15,000 gallons
- b. Wet Dumpsters: 1,008 gallons
- c. Containerized Waste: 5,200 gallons in the north building container storage area, 41,220 gallons in the south nonflammable container storage area, and 12,749 gallons in the south flammable container storage area for a total of 59,169 gallons. (Note: This includes any combination of 5, 16, 30, 55, 85-gallon containers, and 350-gallon totes used for various management purposes).

All wastes will be disposed of offsite in accordance with appropriate hazardous waste regulations.

#### CONTAINERS

The hazardous waste container storage areas consist of two areas: the container storage located in the north building and the container storage area in the south building, which is separated into the nonflammable container storage area and the flammable container storage area (room). These areas are shown in Figures 8.1-1, 8.1-2, and 8.1-3.

#### **CONTAINMENT SYSTEM**

The container storage areas shown in Figure 8.1-1 occupy portions of the building areas in warehouse. This warehouse area has concrete floors, concrete berms, and collection

trenches to form spill containment systems. The system is maintained. Spills from containers are removed by a hand-held, portable electric pump (the COMS pump), wetdry vacuum, or sorbent materials. Since the characteristics of the stored wastes are known, no analyses are performed for the materials collected from the containment area. All collected materials are sent to a RCRA permitted recycling/reclamation facility.

The container storage area for the north building (Figure 8.1-2) has a capacity of 5,200 gallons. The types and numbers of each container may vary. The flammable container storage area for the south building (Figure 8.1-3) has a capacity of 12,749 gallons. the nonflammable terminated and transfer waste storage area plus the flammable/non-flammable waste staging area in the south building container storage area has a capacity of 41,220 gallons. These capacities include both fresh product and used material.

The container storage areas are completely enclosed so no precipitation will enter them. There is curbing around the container storage areas except where the trenches are located. The north building has three containment trenches with a combined capacity of 520 gallons. The south building has three trenches. One trench provides containment for the flammable storage room. The remaining two trenches provide containment for the non-flammable terminated and transfer waste storage area plus the flammable and non-flammable waste staging area. These two trenches have a combined capacity of 4,122 gallons. Containment calculations for the trenches are provided in Appendix C.

In 1993 Safety-Kleen installed a fire suppression system for the entire facility. As part of the fire code requirements, Safety-Kleen was required to provide containment for the sprinkler water from the flammable storage room. A pipe was connected to the end of the existing containment trench in the flammable storage room. The pipe runs underground along the south end of the building and flows into a previously unused tank containment area. The pipe is metal and is enclosed in a sealed high density polyethylene liner. The previously unused tank containment area has been segregated into two sections. The northern section is used to house the fire water tank and pump house. The southern section provides secondary containment for liquids from the flammable

storage area in the event the fire protection sprinkler system is activated or in the event that the flammable storage room containment trench capacity is exceeded. Based on the configuration and slope of the trench in the flammable storage area, only in the event a spill of greater than 550 gallons would material enter the pipe and/or additional secondary containment area. The southern portion of the containment area has been coated with chemically resistant coating in the same manner as the container storage areas. The installation of this pipe and containment area has affected the secondary containment capacity of the flammable storage room. The existing trench provides 660 gallons of containment capacity, while the additional secondary containment area provides 5,064 gallons of containment capacity. The containment capacity of the pipe is 427 gallons. The new total containment capacity is 6,151 gallons which is greater than 10% of the permitted storage volume of 12,749 gallons. Containment calculations are provided in Appendix C.

#### External Factors

The design of the facility is such that a harmful spill is highly unlikely to occur from most external factors. The storage tanks are inaccessible to non-Safety-Kleen personnel and the pump switches are located inside. Also, the container storage area is in a building which is inaccessible to unauthorized personnel.

- Vandalism Only extreme vandalism would result in a solvent spill or fire.
   Responses to spills and fires are described in the Contingency Plan
- 2. Strikes A strike would not result in a solvent spill or fire.
- 3. Power Failure A power failure would not result in a spill or fire. Should a power failure occur, all activities requiring electricity will cease.
- 4. Flooding The site elevation is above the projected 100-year floodplain.
- 5. Storms or Cold Weather The solvent return/fill station is covered to eliminate the possibility of rain or snow entering the dumpsters. No opportunity is foreseen to affect the facility with snow, cold weather, or storm weather.

#### Containment Building Closure Plan

The closure plan, closure activities, cost estimates for closure are found in Part II K.

#### INSPECTION PROCEDURES

#### Inspection of Safety Equipment

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of emergency and spill control equipment to ensure proper operation, and to maintain compliance. Table 5.2-1 is an Inspection Schedule. The Branch Manager or designee is responsible for carrying out the inspection in accordance with the following procedure and schedule.

- A weekly inspection of fire extinguishers must be performed to ensure that the tag date has not expired and the units are properly charged and accessible.
- A weekly inspection of eyewash stands must be performed to assure
  accessibility; check for proper operation of this equipment on a monthly basis.
  Inventory of the first-aid kits must be checked on a weekly basis.
- A weekly check of the supply of spill control equipment (absorbent material)
   must be performed
- A weekly check of the conditions and inventory of other emergency equipment will be made. This includes gloves, aprons, safety glasses, and other personal protective equipment.

#### Inspection of Security Equipment

The Branch Manager or designee, using the Weekly Inspection Log (Figure 5.2-1 or similar), inspects the security features of the facility weekly (e.g., gates and locks), looking for any evidence of sticking, corrosion, or unusual activity. The facility fence will be checked weekly for deterioration, gaps, and broken wire ties.

#### Inspection of Waste Management Facilities

The purpose of the inspection plan is to establish a procedure and schedule for the systematic monitoring and inspection of hazardous waste management and other material management facilities to ensure proper operation and maintain compliance. Table 5.2-1 provides an Inspection Schedule.

The Branch Manager or designee is responsible for carrying out the inspections of all hazardous waste management facilities in accordance with the following procedure and schedule.

Daily inspections of aboveground tanks will include the following:

- Note volume in tank.
- Observe tank exterior for loose anchoring, wet stops, leaks.
- Check the automatic high level alarm. In addition, measure the depth of used solvent in the tanks to confirm the proper functioning of the automatic alarm system and to determine unexpected deviations in tank measuring data, or a sudden drop on liquid level, which may indicate leakage.
- Inspect secondary containment walls and piping.
- Inspect transfer pump for leaking seals and overhead motors.
- Inspect the solvent dispensing hose, fittings, and valve for any leaks, damage, or wear that could cause a leak to develop.
- Inspect the valves for proper seal. Stem leaks from worn glands and warped valve bodies should be repaired. If the valve cannot be repaired, replace the unit.

Also, the tanks will be visually inspected and tested periodically.

Daily inspection of the solvent return receptacle (wet dumpster) will consist of an inspection for leaks and excess dumpster mud build-up.

Daily inspections of the container storage area include the following:

- Verify that total volume is within permitted limits.
- Physically examine the condition of containers to verify that leaks have not occurred since the last inspection.
- Verify that all container identification, dates, and hazardous waste labels are attached and current.
- Inspect container placement and stacking such as aisle space, height, and stability
  of stacks.
- Examine containment areas to detect signs of deterioration and failure of the containment system such as cracks, breakage, settlement, and spillage.

#### Corrective Action

Any discrepancies or deficiencies found during routine inspections will be recorded in the inspection log and brought to the attention of a supervisor. At this time an evaluation of seriousness of the problem will be noted and a decision made if the situation requires immediate action or the problem can be handled as routine maintenance. The evaluation of the seriousness of the problem will be recorded in the facility's inspection log. If the problem poses a threat to human health of the environment, action will be taken immediately. The Branch Manager has the overall responsibility for resolving any discrepancies found during the routine inspection.

**TABLE 5.2-1** 

# INSPECTION SCHEDULE

Area/Equipment	Specific Item	T-I	Types of Problems	Frequency of Inspection
Safety Equipment	Fire Extinguishers	• • •	Overdue inspection Inadequately charged Inaccessible	Weekly
	Eyewash	• • •	Disconnected/malfunctioning values Pressure Inaccessible	Weekly
	First-Aid Kit	•	Inadequate inventory	Weekly
	Spill Cleanup Equipment	•	Inadequate supply of sorbent, towels, shovels, mops, empty drums	Weekly
	Personal Protection Equipment	•	Inadequate supply of aprons, glasses, respirators	Weekly
Security Equipment	Gates and Locks	•	Sticking corrosion, lack of warning signs	Weekly
	Fence	•	Broken ties, corrosion, holes, distortion	Weekly
Storage Tank System-	Volume in Tank	•	Must never be more than 95 percent full	Each operating day
Storage Tanks	Tank Exterior	•	Rusty or loose anchoring, lack of grounding, wet spots, discoloration, leaks, distortion	Each operating day
	High Level Alarms	•	Malfunctioning siren/strobe light	Each operating day
	Volume Gauges	•	Disconnected, sticking, condensation	Each operating day
Secondary Containment	Bottom and Walls	٠	Cracks, debris, ponding, wet spots/stains, deterioration, displacement, leaks	Each operating day
	Rigid Piping and Supports	•	Distortion, corrosion, paint failures, leaks	Each operating day
	Self Closing Drain Valve	•	Open, leaks	Each operating day

**TABLE 5.2-1** 

# INSPECTION SCHEDULE

Area/Equipment	Specific Item		Types of Problems	Frequency of Inspection
Transfer Pumps and Hoses	Pumps Seals	•	Leaks	Each operating day
	Motors	•	Overheating	Each operating day
	Fittings	•	Leaks	Each operating day
	Valves	•	Leaks, sticking	Each operating day
	Hose Connections and Fittings	•	Cracks, loose, leaks	Each operating day
	Hose Body	•	Crushed, cracked, thin spots, leaks	Each operating day
Return/Fill Station	Wet Dumpster	•	Excess sediment build-up, leaks, rust, split seams, distortion, deterioration, excess debris	Each operating day
	Secondary Containment	•	Excess sediment/liquid, leaks, deterioration, distortion, excess debris	Each operating day
	Loading/Unloading Area	•	Cracks, pondings/wet spots	Each operating day
Container Storage Area	Total Volume in Storage	•	Exceeds permitted limit	Each operating day
	Condition of Drums	•	Missing or loose lids; labels missing, incomplete or incorrect; rust, leaks, distortion	Each operating day
	Stacking/Placement/ Aisle Space	•	Containers not on pallets, unstable stacks, inadequate aisle space	Each operating day
Secondary Containment	Curbing, Floor and Sump	•	Ponding/wet spots, deterioration, displacement, leaks, other	Each operating day
	Loading/Unloading Area	•_	Cracks, deterioration, pondings/wet spots	Each operating day

## Daily Inspection Log Sheets Tampa, FL

Figure 5.2-1

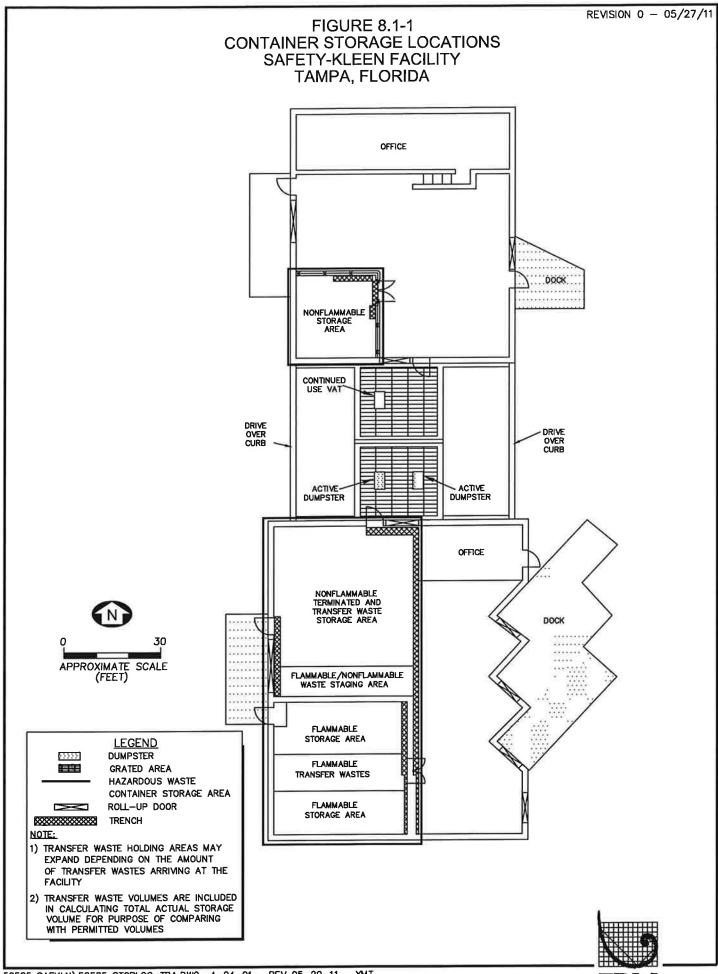
Revision Date: 01/19/2011

### INSPECTION LOG SHEET FOR DAILY INSPECTION OF GATES AND LOCKS

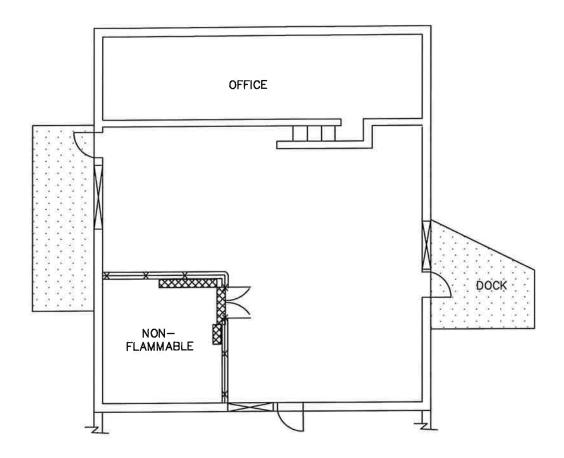
Check all gates and locks for security, sticking, corrosion, lack of warning signs or uncommon activity.

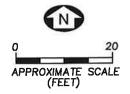
Day of Wook	Date	Time	Status	Name
Day of Week	Date	Time	Status	Hume
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday*				
Sunday*				

<sup>\*</sup> If employees are working or handling RCRA regulated materials or their storage units on Saturday or Sunday, a daily inspection must be completed.



#### FIGURE 8.1-2 CONTAINER STORAGE AREA (NORTH BUILDING) SAFETY-KLEEN FACILITY TAMPA, FLORIDA





**LEGEND** 

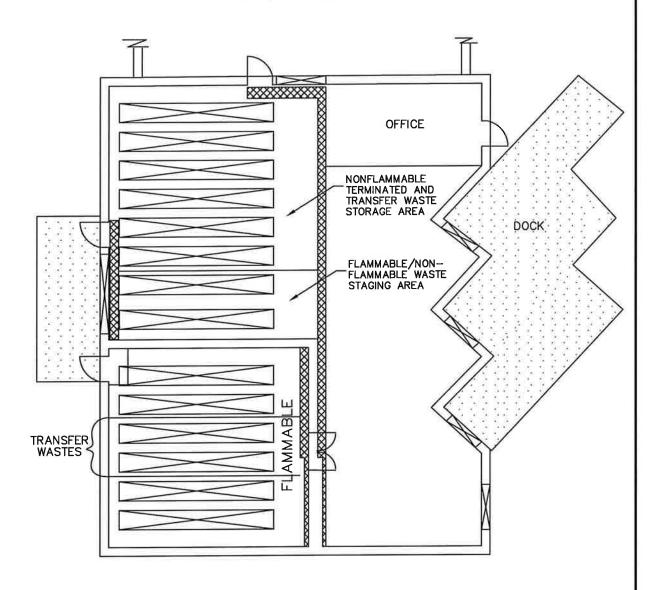
ROLL-UP DOOR

\*\*\*\*\*\*

TRENCH



## FIGURE 8.1-3 CONTAINER STORAGE AREA (SOUTH BUILDING) SAFETY-KLEEN FACILITY TAMPA, FLORIDA



#### **LEGEND**

 $\sim$ 

ROLL-UP DOOR

**TRENCH** 

><

ROWS OF CONTAINERS

NOTE: 1) TRANSFER WASTE HOLDING AREAS MAY EXPAND DEPENDING ON THE AMOUNT OF TRANSFER WASTES ARRIVING AT THE FACILITY

2) TRANSFER WASTE VOLUMES ARE INCLUDED IN CALCULATING TOTAL ACTUAL STORAGE VOLUME FOR PURPOSE OF COMPARING WITH PERMITTED VOLUMES

#### Part II

#### K. CLOSURE PLAN

Safety-Kleen constructed the Tampa Branch with the intent that it will be a long-term facility for the distribution of Safety-Kleen products. No on site disposal activity occurs at the facility and, hence no disposal capacity will be exhausted that will necessitate closure of the facility. Based on current business and facility conditions, the Tampa facility is expected to remain in operation at least until the year 2035.

In the event that some presently unforeseen circumstance(s) would result in the discontinuance of operations and permanent closure or sale of the facility, this closure plan identifies the steps necessary to close the facility at any point during its intended life. This plan should be applied to the tanks system, container storage areas, and equipment used by the facility for hazardous waste management to accomplish the closure performance standard of 40 CFR 264.111. It is intended that all closures will be complete and final with removal of waste and decontamination of the facility and associated equipment. This will eliminate the need for maintenance after closure and the possibility of escape of hazardous waste constituents into the environment.

#### **FACILITY DATA**

- 1. Waste Management Facility Descriptions
  - a. Aboveground Storage Tank: The tank is a 15,000-gallon vertical steel tank,
     10'6" diameter x 23'3" high, for used for the storage of used parts washer solvent. This tank is located within a containment system consisting of a 49'5" x 18'5" foundation slab with 3.9' perimeter walls.

- b. Solvent Return/Fill Station: The station is a 50' x 80' curbed and covered concrete portion of the building located between the north and south buildings. It contains two wet dumpsters and a Continued Use Vat (200 gal.). The two active dumpsters are used to receive returned solvent from containers and pump it to the used parts washer solvent tank. These dumpsters are not intended for storage but can hold a max. of 1,008 gallons (504 gallons each).
- c. Container Storage Area: The north building storage area is a 40' x 30' area with 6" wide by 4" high perimeter curbing and associated collection trenches. The maximum volume of product and waste stored is 5,197 gallons. The wastes stored in this area consist of dry cleaner wastes, spent immersion cleaner, and/or antifreeze containers. The south building storage area has two areas. The non-flammable storage area measures 60' x 45', with 6" wide by 4" high perimeter curbing, collection trenches and a sump. It has a capacity to hold 41,367 gallons of non-flammable product and/or waste. Various halogenated solvents are stored in this area including, but not limited to, dry cleaner wastes, spent immersion cleaner, FRS wastes, and/or antifreeze. The flammable storage area measures 45' x 45', with 6" wide by 4" high concrete curbing, collection trenches, a sump, and an overflow pipe and containment. Paint wastes, FRS wastes, and tank and dumpster mud are stored in this area along with any other flammable wastes and products.
- d. South Overflow Pipe and Containment: An overflow containment system connecting to the collection trench in the flammable storage area provides additional storage volume for wastes or fire suppression system overflow from this area. The system consists of a 10" cast iron discharge pipe connecting the collection trench in the flammable storage area to the concrete containment area at the southern end of the tank farm area. This containment area is approximately 19" wide x 30" long x 2' high and, with the connecting pipe, provides an approximate storage capacity of 5,491 gallons.

#### 2. Maximum Inventory of Wastes

a. Used Parts Washer Solvent: 15,000 gallons

b. Wet Dumpsters: 1,008 gallons

c. Containerized Waste: 46,420 gallons non-flammable and 12,749 gallons flammable. (Note: This includes any combination of 5, 16, 30, 55, 85-gallon containers used for various management purposes).

All wastes will be disposed offsite in accordance with appropriate hazardous waste regulations.

#### **CLOSURE PROCEDURES**

#### Container Storage Areas

- At closure, all containers present at the facility will be sent to a Safety-Kleen recycle center, or third party facility where the contents in the containers will be reclaimed and the containers cleaned for reuse. The containers will be removed and transported with proper packaging, labeling, and manifesting.
- The concrete floor, spill containment area, and walls will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. Final rinsate samples will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, rinsate samples will be collected from the north container storage area, south nonflammable container storage area, and south flammable container storage area (for a total of three rinsate samples). The rinsate sample will be analyzed by EPA method 6010 for the eight RCRA metals and nickel, and for volatile and semivolatile organics by EPA methods 8015, 8260, and 8270. The area will continue to be scrubbed and rinsed until concentrations meet Ground Water Cleanup Target Levels (GWCTLs) established in Chapter 62-777, Florida Administrative Code (FAC). Decontamination of the mercury-containing lamps and devices storage area will be conducted at the time of closure as part of the

overall decontamination of the container storage areas. No additional, special decontamination of the mercury-containing lamps and devices storage area will be conducted at the time of closure, because any decontamination associated with releases from mercury-containing lamps and devices will be conducted at the time of release.

- Due to the design of the South Overflow Pipe and Containment system, it is very unlikely that the system will have any contact with hazardous wastes. Therefore, if sufficient documentation exists at the time of closure to demonstrate that no hazardous wastes have entered this system, it will not require decontamination. If sufficient documentation does not exist or if hazardous wastes have been introduced into this containment system, then it will be decontaminated in a manner consistent with the container storage areas. In this case, one rinsate sample will be collected from the concrete containment for the same anlyses as the rinsate samples from the container storage areas. The overflow pipe will be thoroughly rinsed to remove visible contamination prior to recycling as scrap metal in accordance with 40 CFR 261.6(a)(3)(ii).
- Decontamination (i.e., detergent wash and clean rinse) fluids will be collected
  and contained for proper management. One representative sample of the
  contained fluids will be collected to determine whether the water is hazardous.
  This determination will be made by laboratory analysis of the sample for the
  metals and organics (excluding pesticides/herbicides) on the TCLP list. (Note:
  This wash water will be from all areas undergoing decontamination, not just from
  the container storage areas.)

- If the wash water or other wastes generated in the closure process are determined
  to be hazardous, they will be disposed of properly as a hazardous waste.

  Otherwise, the material will be disposed of as an industrial waste. Assumptions
  of wash water generation are based on Safety-Kleen's past experience from other
  facility closures. The generated wash water is expected to be non-hazardous
  based on Safety-Kleen's experience from other facility closures.
- Equipment to be used to clean this area includes mops, pails, scrub brushes, a
  wet/dry vacuum, and containers. The mops, pails, and scrub brushes will be
  containerized and disposed of as hazardous waste. The wet/dry vacuum and
  containers used will be washed with a detergent solution and rinsed to
  decontaminate them.

#### Solvent Return/Fill Station

- At closure, any sludge in the wet dumpsters and Continued Use Vat ("dumpster mud") will be cleaned out and containerized, labeled, and manifested for proper disposal.
- The metal superstructure components of the station (i.e., the wet dumpsters, CUP Vat, and the dock grating) will be cleaned by appropriate means to remove visible contamination. Safety-Kleen intends to recycle these components as scrap metal in accordance with 40 CFR 261.6(a)(3)(ii), or to reuse them at another Safety-Kleen facility. Accordingly, decontamination of the components is required only to the extent necessary for safe demolition, storage, and transportation of the scrap.
- The concrete floor in the return/fill station will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. A final rinsate sample will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, the rinsate sample will be analyzed for the same constituents as the container storage area rinsate sample. The area will continue to be scrubbed and rinsed until rinsate concentrations meet GWTLs established in Chapter 62-777, FAC.

#### Aboveground Storage Tank System

#### Metal Components of the Tank Storage System

- At closure, the contents of the tank will be removed to a tanker truck using
  existing unloading equipment and subsequently transported to a Safety-Kleen
  recycle center, or 3<sup>rd</sup> party facility.
- Once the contents have been drained, the tank will be opened by removing the
  manways and vented by supplying fresh air to the interior space of the tank. Any
  residual wastes will be removed via vacuum for recycling with the previously
  drained wastes.
- The interior of the tank as well as all associated piping and appurtenant equipment will then be cleaned by appropriate means to remove visible contamination. Safety-Kleen intends to recycle the tank, piping, and appurtenant equipment as scrap metal in accordance with 40 CFR 261.6(a)(3)(ii), or to reuse them at another Safety-Kleen facility. Accordingly, decontamination of the metal components is required only to the extent necessary for the safe demolition, storage, and transportation of the scrap.

#### Concrete Containment System

- Final disposition of the concrete containment system within which the waste tank is located will depend in part upon the presence or absence of underlying soil contamination. To make that determination, the upper six inches of soil immediately below the concrete slab will be sampled at the locations, as follows:
  - 1. Under the waste tank;
  - 2. At the containment system sumps.
  - 3. Beneath the most prominent of any cracks observed in the slab.
- These sample locations may be adjusted as actual field conditions warrant, but a
  minimum of three samples will be retrieved. These samples will be analyzed by
  EPA Method 6010 for the eight RCRA metals and nickel, and for volatile and
  semivolatile organics by EPA Methods 8015, 8260, and 8270.

- The perimeter walls and foundation slab of the secondary containment area will be scrubbed with a detergent solution and rinsed with clean water to remove waste residuals from the surface. A final rinsate sample will be collected and analyzed to determine the effectiveness of decontamination. Unless otherwise designated in the formal closure plan, the rinsate sample will be analyzed for the same constituents as the container storage area rinsate sample. The area will continue to be scrubbed, rinsed, and resampled until rinsate concentrations meet GWTLs established in Chapter 62-777, FAC. Safety-Kleen anticipates that proper maintenance of the concrete containment system will allow the slab to remain in place at closure.
- Safety-Kleen will proceed with demolition of the perimeter walls. If it is determined that soil contamination exists beneath the foundation slab, Safety-Kleen will demolish the entire concrete structure and complete a further delineation of the extent of soil contamination to be removed to complete closure. An additional work plan will be prepared to guide the soil assessment, removal, and disposal activities that Safety-Kleen will implement to address residual soil contamination.
- Prior to demolition of the perimeter walls, one representative composite sample of the construction materials will be collected and submitted for analyses (by TCLP) of metals and organics (excluding pesticides and herbicides) unless an alternate analytical protocol is required by the selected disposal facility. The representative composite sample will include biased grab samples collected from areas of staining. If no stained areas are evident, the grab sample locations will be randomly selected. If the construction materials are classified as non-hazardous using TCLP, then they will be disposed of as construction debris in an appropriately permitted disposal facility. In the event the construction materials are identified as hazardous using TCLP, the construction materials will be disposed of as a hazardous waste in accordance with RCRA regulations.

- If the foundation slab must be removed, it will be demolished and the construction materials tested using TCLP in the same manner as that described above for the walls of the secondary containment system.
- If soil removal becomes necessary, Safety-Kleen will backfill the excavated area with clean, compacted general fill material graded to match existing surfaces and to preclude ponding of water. To ensure backfill is clean (i.e., is not contaminated with constituents at concentrations above Florida soil cleanup goals or site background (whichever is higher)), one representative composite sample of the backfill sample will be analyzed by EPA Method 6010 for the eight RCRA metals and nickel, and by EPA Methods 8015, 8260, and 8270.

#### FACILITY CLOSURE SCHEDULE AND CERTIFICATION

- Safety-Kleen may amend the closure plan at any time during the active life of the facility. The active life of the facility is that period during which wastes are periodically received. Safety-Kleen will amend the plan any time changes in operating plans or facility design affect the closure plan or whenever a change occurs in the expected year of closure of the facility. The plan will be amended within 60 days of the changes.
- Safety-Kleen will notify the FDEP of its intent to close the facility by submitting
  an application for a closure permit pursuant to Chapter 62-730.260(1), FAC.
  This application will be submitted no later than 60 days before the final receipt of
  hazardous wastes by the facility or at the time specified in the current operating
  permit.
- Within 90 days of receiving the final volume of hazardous wastes, or 90 days
  after issuance of a closure permit, if that is later, Safety-Kleen will remove from
  the site all hazardous wastes in accordance with the approved closure plan. The
  Regional Administrator may approve a longer period if Safety-Kleen
  demonstrates that:

- 1. The activities required to comply with this paragraph will, of necessity, take longer than 90 days to complete; or
- 2. The following requirements are met:
  - a) The facility has the capacity to receive additional wastes;
  - b) There is a reasonable likelihood that a person other than Safety-Kleen will recommence operation of the site;
  - c) Closure of the facility would be incompatible with continued operation of the site; and
  - d) Safety-Kleen has taken and will continue to take all steps to prevent threats to human health and the environment.
- Safety-Kleen will complete closure activities in accordance with the approved closure plan within 180 days after receiving the final volume of wastes or 180 days after approval of the closure plan, whichever is later. When closure is completed, all facility equipment and structures shall have been properly disposed of, or decontaminated by removing all hazardous waste and residues.
- Within 60 days of closure completion, Safety-Kleen will submit certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

Figure 10.3-1 presents a typical closure schedule anticipated for the Tampa facility.

#### CONTINGENT POST-CLOSURE PLAN

The tank system at the Tampa facility meets the secondary containment requirements of 40 CFR 264.193, and is, therefore, not required to have a contingent post-closure plan under 40 CFR 264.197(c). In addition, Safety-Kleen intends to remove or decontaminate all tank system components, associated containment systems, and contaminated soils (if any) at the time of closure. However, should future conditions indicate that all contaminated soils and tank system components cannot practicably be decontaminated or removed, then a plan to perform post-closure care in accordance with

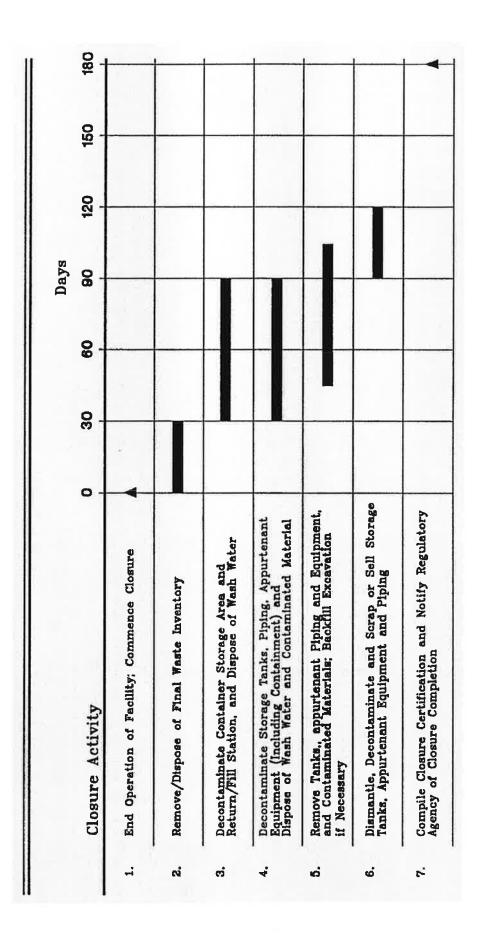
the post-closure care requirements that apply to landfills (40 CFR 264.310) will be prepared for implementation upon FDEP approval.

#### **CLOSURE COST ESTIMATE**

The cost for closure of the facility is estimated and summarized as follows:

•	Project Coordination and Scheduling	\$3,716
•	Mobilize to Site and Prepare for Closure	\$186,750
•	Storage Tank Decontamination and Removal	\$15,491
•	Decontaminate Return/Fill Station	\$19,078
•	Decontaminate Container Storage Area	\$9,842
•	Decontaminate Flammable Paint Storage Shelter	\$12,096
•	Containerize, Stage, Transport and Dispose of Decon Wastes	\$11,954
•	Closure Certification Report	\$4,937
	Subtotal	\$263,8641
	Location Factor for RS Means Rate (Zip Code 33619)	0.87
	Total Closure Cost Estimate (Adjusted for Location)	\$247,842
	Current closure policy amount in place as of November 17, 2010	\$279,911

FIGURE 10.3-1
TYPICAL CLOSURE SCHEDULE
SAFETY-KLEEN FACILITY
TAMPA, FLORIDA





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P.	Information Requirements Regarding Potential Releases From Solid Waste
	Management Units

acility	Name	Safety-Klee	n Systems, In	C.		
	EP I.D. No		FLD 980 847 271			
Facility location		Tampa	Florida			
		city		state		
1.	facility? A so wastes have to the management where solid was	of the following solid waste mar blid waste management unit (SN been placed at any time, irrespe ent of solid or hazardous waste astes have been routinely and s Federal Register (55 <u>FR</u> 30798).	VMU) is a dis ective of whet . Such units ystematically	scernable unit at which s her the unit was intended include all areas at a fac	solid d for cility	
	DO NOT INCLUD	E HAZARDOUS WASTE UNITS CURR	ENTLY SHOWN	IN YOUR PART B APPLICATION	ON.	
		landfill	Yes	⊠ No		
		surface impoundment	Yes	X No		
		land farm	Yes	■ No		
		waste pile	Yes	X No		
		incinerator	Yes	⊠ No		
		storage tank	Yes	⋈ No		
		container storage area	Yes	☑ No		
		injection wells	Yes	No		
		wastewater treatment units	Yes	⊠ No		
		transfer station	Yes	■ No		
		waste recycling operations	Yes	<b>⊠</b> No		
		land treatment facility	Yes	⊠ No		
		boiler/industrial furnace	Yes	⊠ No		
		other (units not listed above)	X Yes	■ No		

2. If there is a "yes" answer to any of the items in 1. above, on separate sheet(s) of paper, provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, focus on whether or not the wastes would be considered hazardous wastes or hazardous constituents under RCRA. (Hazardous wastes are those identified in 40 CFR Part 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.) Include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Provide a description of each unit and include capacity, dimensions, and location at the facility. Provide a site plan, if available, and the dates of operation of the unit [40 CFR 270.14(d)(1)].

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3. On separate sheet(s) of paper, describe all data available on all prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring, for each unit noted in 1. above and also for each hazardous waste unit in your Part B application [40 CFR 270.14(d)(1)].

Provide the following information for each SWMU:

- a. Date of release.
- b. Specifications of all wastes managed at the unit, to the extent available.
- c. Quantity or volume of waste released.
- d. Describe the nature of the release (i.e., spill, overflow, ruptured pipe or tank, etc.)
- e. Location of the unit on the topographic map provided under 40 CFR 270.14(b)(19).
- f. Designate the type of unit.
- g. General dimensions and structural description (supply any available drawings).
- h. Dates of operation.
- 4. On separate sheet(s) of paper, provide for each unit all analytical data that may be available which would describe the nature and extent of the environmental contamination that exists as a result of the prior releases described in 3. above. Focus on the concentrations of hazardous wastes or constituents present in contaminated soil or groundwater [40 CFR 270.14(d)(3)].

#### Part II P.

- #2. The "other" SWMUs referred to on Part P #1 are those SWMUs listed in Part II Q, and are not new SWMUs. Please refer to Part II Q for a description of those SWMUs.
- #3. No releases have taken place at the facility within the units noted in Part II P #1.

#### Part II

#### Q. INFORMATION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS

Part II.Q. of the Florida Department of Environmental Protection's (FDEP's) Application for a Hazardous Waste Permit outlines the information requirements for solid waste management units (SWMU's) at the facility. This section provides the required information.

On October 30, 1991, the facility received a HSWA permit exemption from Region 4 of the USEPA. The HSWA permit (Permit No. FLD980847271) expired on October 30, 2001 and all HSWA corrective action conditions were incorporated into the state permit issued on 11/23/2001.

Fifteen SWMUs were identified at the facility in the RCRA Facility Assessment dated December 1, 1989 and in the previous permit issued by FDEP (34744-HO-005). They are listed below:

SWMU NUMBER	DESCRIPTION
1	Service center drum storage area and associated trench
2	Drummed dry cleaning and paint waste unloading dock
3	Solvent return wet dumpsters
4	Spill containment area below the fill shelters
5	Drum rinsing area
6	Waste solvent storage tank
7	Storm water ditch
8	Accumulation center drum storage area and associated
	trench
9	Drummed waste loading dock (3)
10	Drummed flammable waste storage room
11	Old dumping ground
12	Storm water retention pond
13	Antifreeze tank
14	Used Oil filter containers
15	Empty used oil filter containers

Since the issuance of the last operating permit SWMU No. 13, Antifreeze tank, has been removed and is no longer present at the facility. The last permit (34744-HO-005) indicated that no remedial corrective action is required at the facility.

#### S. AIR EMISSION STANDARDS

#### AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

The requirements of 40 CFR 264 Subpart BB – Air Emission Standards for Equipment Leaks apply to certain equipment associated with the used parts washer solvent storage tanks system. Figure 2.2-5 plots the facility layout with the location of the hazardous waste management units that utilize equipment subject to Subpart BB. Equipment subject to Subpart BB requirements is included in the "tank storage waste management area" area shown in Figure 2.2-5. This equipment contains or contacts hazardous wastes with VOC concentrations > 10% by weight. The Subpart BB requirements apply to pumps, valves, flanges, etc., which are part of the used parts washer solvent storage tank system. Figure 11.1-1 shows the specific equipment items, which are considered to be in "heavy liquid service" for the purposes of Subpart BB. Compliance with the applicable sections of 40 CFR 264.1052 thru 1063 has been achieved by the implementation of the procedures outlined in Appendix D and other procedures detailed below.

#### Implementation Schedule

All facilities subject to these regulations were required to be in compliance by the date specified in the final rule. This facility has been in compliance since that date (see Appendix D).

#### Schedule and Procedures For Inspections

Pursuant to Subpart BB of 40 CFR Part 264 and 40 CFR 270.25, Safety-Kleen inspects all regulated units for leaks each business day. An inspection checklist (example shown in Figure 11.1-2) is utilized for his purpose. All valves, pumps, and flanges are visually inspected. The inspection items have been properly tagged in accordance with 40 CFR 264.1050(d) and are inventoried on the environmental piping schematic diagrams

included in Figure 11.1-1. In the event that a leak is detected, repairs will be implemented in accordance with the applicable provisions of Subpart BB (first attempt at repair within 5 days; repair completed or equipment placed "out of service" within 15 days. For such repairs, a "Leak Detection and Repair Record" will be completed (see Figure 11.1-3 for an example.

Due to the inherent properties of the waste parts washer solvent stored in the tank, the use of a screening device such as a photoionization detector (PID) is impractical. The liquids are heavy and have low vapor pressures, therefore a release would be visible in a liquid phase rather than a vapor. The parts washer solvent has a maximum of 2,000 ppm concentration in the vapor phase.

#### **Alternate Control Devices**

No alternate control devices are in use at this facility.

#### Documentation Of Compliance

#### Pumps in Light Liquid Service (40 CFR 264.1052)

Safety-Kleen manages parts washer solvent (mineral spirits) that has vapor pressure less than 0.3 kilopascals at 20 degrees C. Therefore pursuant to 40 CFR 264.1030, these materials are classified as heavy liquids.

The existing pumps that manage hazardous wastes at the Tampa facility are identified and listed for use in heavy liquid service. Therefore, the Tampa facility does not have any pumps that are in light liquid service subject to the requirements of 40 CFR 264.1052.

#### Compressors (40 CFR 264.1053)

The facility does not have any compressors that are in contact with organic chemicals. Therefore, 40 CFR 264.1053 is not applicable.

#### Pressure Relief in Gas/Vapor Service (40 CFR 264.1054)

The facility does not have any pressure relief subject to the requirements of 40 CFR 264.1054.

#### Sampling Connecting Systems (40 CFR 264.1055)

The facility does not have any sampling connecting systems or in situ sampling systems.

#### Open-Ended Valves or Lines (40 CFR 264.1056)

Safety-Kleen has identified the location of each open-ended valve and line and included it in the inspection record. The open-ended valves and lines that are subject to the requirements of 40 CFR 264.1056 are identified in the facility's environmental piping schematic drawing (Figure 11.1-1). This equipment is either equipped with caps, second valves, or double block and bleed system.

A cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.

Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.

When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves.

#### Valves in Gas/Vapor Service or in Light Liquid Service (264.1057)

All existing valves that come in contact with hazardous wastes are in heavy liquid service. Therefore, they are not subject to the requirements of 40 CFR 264.1057. If their use is changed to light liquid service, the valves will be monitored for leaks using a portable organic vapor analyzer in accordance with Method 21.

Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors (40 CFR 264.1058)

At the present time, the pumps, valves, flanges, and other connectors at the Tampa facility are used for heavy liquid service. As defined in 40 CFR 264.1031, the mineral spirits solvents managed at the facility are considered to be heavy liquid because the solvents have a vapor pressure less than 0.3 kilopascals at 20° C. Furthermore, no single contaminant is present in the wastes that has vapor pressure greater than 0.3 kilopascals in concentrations in excess of 20% by weight.

In addition, the wastes presently managed in the equipment at the Tampa facility have a maximum of 2,000 ppm concentration in the vapor phase. Therefore, a portable organic vapor analyzer will not detect leaks at 10,000 ppm and a leak will be observed based on a visible liquid leak rather than by a portable organic analyzer.

The first attempt at repair will be made no later than five calendar days after each leak is detected. Pursuant to the requirements of 40 CFR 264.1058, if a visual leak is observed, the affected equipment will be repaired no later than 15 days after it is detected. Whenever a leak is detected as specified in 40 CFR 264.1064 the following will apply:

- A weatherproof and readily visible identification attached to the leaking equipment shall be marked with the following information: equipment identification number, date that evidence of a potential leak was found in accordance with 264.1058(a), and date leak was detected.
- The identification on equipment, except on a valve, may be removed after it has been repaired.
- The identification on a valve may be removed after it has been monitored for two successive months as specified in 264.1057(c) and no leak has been detected during those two months.

Whenever a leak is detected as specified in 40 CFR 264.1058, the following information shall be recorded, as deemed appropriate, in an inspection log and shall be kept as part of the facility operating record:

- The instrument, operator, and equipment ID numbers.
- The date that evidence of a potential leak was found in accordance with 264.1058(a).
- The date the leak was detected and the dates of each attempt to repair the leak.
- Repair methods applied in each attempt to repair the leak.
- "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- Documentation supporting the delay of repair of a valve in compliance with 264.1059(c).
- The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.
- The expected date of successful repair of the leak, if the leak is not repaired within 15 calendar days.
- The date of successful repair of the leak.

# Recordkeeping Requirements

Pursuant to the requirements of 40 CFR 264,1064, Safety-Kleen has identified all affected equipment by number and location (Equipment Schedule) as shown in Figure 11.1-1.

The following records will be maintained at the Tampa Branch and maintained as part of the facility's operating record.

- Type of equipment; valve, pump, flange, etc.
- Service; light liquid or heavy liquid.
- Percent-by-weight is not necessary for the equipment because the facility manages wastes that are nearly 100% organic by weight.
- Method of compliance; daily inspections.
- ID on the equipment, if they are found leaking, will be implemented.
- Leak monitoring results and any repairs conducted at the facility.

# Closed-Vent Systems and Control Devices (40 CFR 264.1060)

Since neither a closed vent system nor a control device is required for, or as part of, the equipment ancillary to the facility's hazardous waste storage tank (equipment subject to Subpart BB), demonstrations of compliance with applicable design, operation and maintenance specifications are not required. The Tampa facility will maintain records as part of the facility's operating record that indicate the name and ID of each equipment (i.e., pumps, valves, flanges, open-ended valves, etc.) at the facility. The record will include the type of chemicals managed in each equipment (i.e., light liquid, heavy liquid, etc.) and the state of the chemicals (i.e., gas, vapor, liquid, etc.) and any leaks detected (i.e., visual, >10,000 ppm, etc.) and the date and type of repair performed to repair the leaking equipment.

Since Safety-Kleen manages organic chemicals that are nearly 100% by weight organic,

it is not required to maintain in the records the concentration of organic chemicals in the waste stream (40 CFR 264.1064(b)(1)(iv)).

# AIR EMISSION STANDARDS FOR TANKS, AND CONTAINERS

Safety-Kleen's Tampa facility manages wastes that range in Volatile Organic concentrations up to 100%. Therefore, all wastes managed in containers and in storage tanks are handled as being subject to 40 CFR 264 Subpart CC requirements based on the knowledge of the wastes managed at the facility. Therefore, no analytical waste determination is required. Figure 2.2-5 depicts the location and type of hazardous waste management units subject to Subpart CC located at the facility. Equipment subject to Subpart CC requirements is included in the "warehouse" area and the "indoor storage tank farm" shown in Figure 2.2-5.

# Supart CC Tank Standards (40 CFR 265.1084)

The Safety-Kleen Tampa facility manages hazardous wastes in a tank system that consists of one 15,000-gallon storage tank. The tank in this system is subject to Subpart CC requirements as a Level 1 Tank based on tank dimensions and maximum vapor pressure of volatile organic materials managed in this tank (see following table). A list of tank, tank dimensions and maximum vapor pressure of volatile organics managed in tanks subject to Level 1 Tank controls is provided in the following table.

# **Applicability of Standards Level 1 Tanks**

Tank Capacity	Maximum Vapor Pressure	
> 151 cubic meters (39800 gallons)	< 5.2 kPa (0.76 psia)	
> 19800 gallons < 39800 gallons	27.6 kPa (4.05 psia)	
< 19800 gallons	76.6 kPa (11.26 psia)	

Tanks that meet the above size and vapor pressure limits and that are not heated to a

temperature that would increase the vapor pressure of the materials above these limits are required to meet Level 1 Tank Standards. See Table 11.2-1 for a summary of the tank at the Tampa facility subject to the requirements of Subpart CC, and the applicable controls.

# Level 1 Tank Requirements (40 CFR 264.1084(c))

Safety-Kleen spent parts washer solvent has a vapor pressure of less than 0.3 kilopascals at 20° C. The tank used for storing this waste has a capacity of 15,000 gallons. A complete description of the tank system is found in Part II C. Waste materials stored in these tanks are spent Safety-Kleen Premium Gold 150 Solvent. The storage tanks meeting Level 1 requirements are equipped with fixed roofs with the following specifications:

- The fixed roof and its closure devices form a continuous barrier over the entire surface area of the hazardous waste in the tank.
- There are no visible cracks, holes, gaps, or other open spaces between roof section and the tank wall.
- Each opening in the fixed roof is equipped with a closure device designed to operate such that when the closure device is secured in closed position, there are no visible cracks, holes, gap, or other open spaces in the closure device or between the perimeter of the opening and the closure device or connected to a control device (control is not required for Level 1 Tanks).

Inspection Requirements for Level 1 Tanks are as follows:

The fixed roof and its closure devices are visually inspected to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes or gaps in the roof sections; broken, cracked, or damaged seals or gaskets on closure devices; broken or missing hatches, access covers, caps, or other closure devices. A description of inspections and example log for tanks can be found in Part II C.

A copy of the most recent tank assessment is included in this permit renewal application in Appendix D.

## Level 2 Tanks (40 CFR 265..1084(d))

There are no level 2 tanks at this facility.

# Subpart CC Container Standards (40 CFR 264.1086)

This section is applicable to containers that are greater than 26 gallons that are used to manage hazardous wastes with greater than 500 ppm volatile organic contents. Hazardous waste containers that are filled (generated) at the facility as well as hazardous waste containers that are received from off site are subject to this rule. Table 11.2-2 provides a summary of the areas, and types of containers managed, at the Tampa facility for which Subpart CC is applicable.

### Level 1 Containers (40 CFR 265.1086(c))

Containers greater than 26 gallons but less than 119 gallons and containers greater than 119 gallons used in heavy material service (<0.038 psia) are to be-controlled in accordance with one of the following Level 1 container standards as follows:

- Containers that meet DOT standards are in compliance with Subpart CC Level 1 container design standards. Safety-Kleen drums meet DOT's standards; or
- A container equipped with cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container such as a lid on a drum or a tarp on a roll-off box; or

 An open-top container in which an organic-vapor-suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere.

# Level 1 Container Operating Requirements (40 CFR 264.1086(c)(3))

Whenever a hazardous waste is in a container using Level 1 controls, the covers shall be maintained in closed position except as follows:

- Adding hazardous waste or other materials to the container if the container is
  filled in one continuous operation, the container is closed upon conclusion of the
  filling operation. In the case of discrete or batch filling the container is to be
  closed:
  - a) upon filling the container to the intended final level;
  - b) the completion of a batch loading after which no additional waste will be added within 15 minutes;
  - c) the person performing the loading operation leaving the immediate vicinity of the container; or
  - d) the shutdown of the process generating waste being added to the container.
- Removing hazardous waste from the container:
   When discrete quantities of hazardous waste are removed from the container,
   covers shall be promptly secured upon completion of a batch removal after which
   no additional material will be removed from the container within 15 minutes or
   the person performing the unloading operation leaves the immediate vicinity of
   the container. RCRA empty containers may be open to the atmosphere at any

time.

Sampling wastes, measuring depth or quantity of wastes:

Containers may be opened when sampling and/or measuring hazardous wastes, as well as adding or removing hazardous wastes from them. Covers must be replaced and secured on containers once such activities are completed.

## Level 1 Container Inspection Requirements

All Level 1 Containers that are not emptied upon receipt at the facility, are inspected upon arrival and each day thereafter until the container is transferred to a recycle center. Each Level 1 Container and its cover and closure devices are inspected for visible cracks, holes, gaps, or other open spaces. No container remains at the facility over 1 year.

If a defect is detected for a container, cover, or closure devices, a repair shall be attempted within 24 hours after detection, and repair shall be completed as soon as possible, but no later than 5 calendar days. The container will be overpacked in a DOT approved container as a means of repair. A description of the types of inspections and example logs for containers can be found in Part II B.

### Level 2 Containers (265.1086(d)

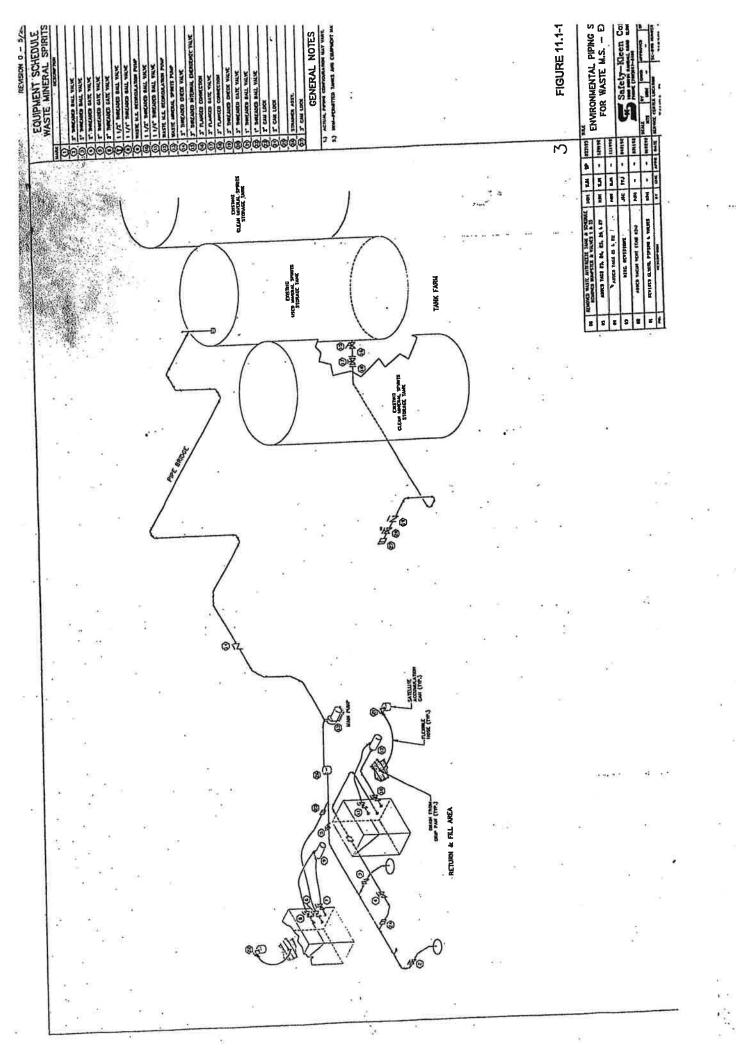
Hazardous waste containers with design capacity greater than 119 gallons and that are in light material service are subject to Level 2 container standards. These include totes, roll-off boxes that are greater than 119 gallons in capacity, and bulk tankers and rail car tankers. Level 2 containers are not stored at this facility, therefore 40 CFR 265.1087(d) does not apply at this location. However, these types of containers may undergo 10-day transfer at the facility, but since they will be considered "still in the course of transportation" Subpart CC will not be applicable.

# **Documentation Of Compliance**

Safety-Kleen prepared a written compliance plan for those units subject to Subpart CC, and instituted the plan on December 6, 1996. A copy of Subpart CC Compliance Plan is included in Appendix E.

# **Documentation Of Compliance**

Safety-Kleen prepared a written compliance plan for those units subject to Subpart CC, and instituted the plan on December 6, 1996. A copy of Subpart CC Compliance Plan is included in Appendix D.



# INSPECTION SHEET FOR: Daily Inspection of STORAGE TANK SYSTEM Figure 11.1-2

Inspector's Name/Title: Chris Abel / Lead Material Handler Inspector's Signature:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Init:	Init:	Init:	Init:	Init:	Init:	Init:
Date:	Date:	Date:	Date:	Date:	Date:	Date:
Time:	Time:	Time:	Time:	Time:	Time:	Time:

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	mp, Flange, or /alve Number	Моі	nday	Tue	sday	Wedn	esday	Thur	sday	Fri	day	Satu	ırday	Sun	nday
2	2" Valve	Α	N	А	N	Α	N	Α	N	А	N	A	N	A	N
3	2" Valve	Α	N	A	N	A	N	Α	N	A	N	А	N	A	N
4	2" Valve	Α	N	А	N	А	N	Α	N	Α	N	Α	N	Α	N
5	2" Valve	A	N	A	N	А	N	Α	N	А	N	А	N	Α	N
6	2" Gate Valve	Α	N	А	N	Α	N	Α	N	Α	N	А	N	А	N
7	1½" Valve	А	N	A	N	A	N	Α	N	A	N	А	N	Α	N
8	1¼" Valve	Α	N	Α	N	А	N	Α	N	Α	N	А	N	А	N
9	Recirc. Pump	Α	N	A	N	A	N	Α	N	A	N	А	N	A	N
10	1½" Valve	Α	N	А	N	А	N	Α	N	Α	N	А	N	Α	N
11	1¼" Valve	A	N	A	N	A	N	A	N	А	N	А	N	A	N
12	Recirc. Pump	Α	N	А	N	А	N	Α	N	Α	N	А	N	А	N
3	MS Pump	А	N	A	N	А	N	Α	N	A	N	Α	N	Α	N
14	2" Valve	Α	N	Α	N	А	N	Α	N	Α	N	Α	N	А	N
15	3' Emer. Valve	Α	N	А	N	A	N	A	N	A	N	A	N	Α	N
6	3" Flange Con.	Α	N	Α	N	А	N	Α	N	Α	N	Α	N	Α	N
7	3' Valve	Α	N	А	N	A	N	Α	N	A	N	A	N	A	N
8	3" Flanged Connection	Α	N	Α	N	Α	N	Α	N	Α	N	Α	N	А	N
9	3' Valve	A	N	A	N	A	N	Α	N	А	N	А	N	A	N
0	3' Valve	Α	N	А	N	А	N	Α	N	Α	N	Α	N	А	N
11	1" Valve	Α	N	A	N	А	N	Α	N	А	N	Α	N	A	N
22	1" Ball Valve	Α	N	Α	N	А	N	Α	N	А	N	А	N	А	N
3	3" Cam Lock	Α	N	A	N	Α	N	A	N	А	N	А	N	A	N
4	2" Cam Lock	Α	N	А	N	А	N	Α	N	А	N	А	N	А	N
6	Strainer Assy.	Α	N	А	N	Α	N	A	N	А	N	Α	N	A	N
7	3" Cam Lock	Α	N	А	N	A	N	Α	N	А	N	А	N	Α	N

If "N" was circled, enter pump or valve# \_\_\_\_\_ and circle the appropriate problem: potential leak, active leak, sticking, wear, does not operate, other:

Leaks and potential leaks, the Leak Detection and Repair Record must be completed, including a short description of the unit being inspected (e.g. gate valve, dumpster flange, etc.)

# Figure 11.1-3 Leak Detection and Repair Record

Equipment ID#		Branch #			
Description		Other	:		
How was potential or a	ctual leak detecte	d:	Date	Inspe	ctor's Signature
Describe the potential of					
1. Instrument Monitori	ng within 5 days				
Results:					
2. Repair Attempt					
Method:					
Results					
3. Repair Attempt					
Method:					
Results:					
4. Date of Successful F	Repair				
(Must be completed with	in 15 days)				
Method:					
Results:					
5. Results:					
6. Results:					
<b>Monitoring Summary</b>	(Refe	rence Number	r – See ab	ove)	
	(1)	(2) (3)	(4)	(5)	6)
Instrument#/Operator Calibration Background Reading Reading at Equipment Leak Detected?					

	CONTROL OPTION (See Table 11.2-3)	1	
	SUBPART CC STATUS	Level 1 Control	
TABLE 11.2-1 OF TANK MANAGEMENT UNITS SUBJECTED TO SUBPART CC SAFETY-KLEEN SYSTEMS, INC. TAMPA, FL EPA ID NO: FLD 980 847 271	AVERAGE VOLATILE ORGANIC CONCENTRATION OF THE HAZARDOUS WASTE	00\$ <	
TABLE 11.2-1 ANAGEMENT UNITS SUBJE -KLEEN SYSTEMS, INC. TAN EPA ID NO: FLD 980 847 271	BRIEF WASTE DESCRIPTION	Waste Parts Washer Solvent (Petroleum Naphtha)	1gh D043
TABLE 11.2-1 F TANK MANAGEMENT UNITS SUBJECTED T SAFETY-KLEEN SYSTEMS, INC. TAMPA, FL EPA ID NO: FLD 980 847 271	EPA HAZARDOUS WASTE CODES MANAGED	D001, and codes listed in Note 1 below	gh D030, and D032 thro
SUMMARY O	LOCATION OF HAZARDOUS WASTE MANAGEMENT UNIT	See Figure 2.2-5	D018, D019, D021 throu
	HAZARDOUS WASTE MANAGEMENT UNIT	Waste Parts Washer Solvent Tank (15,000 gallons)	Note: D004 through D011, D018, D019, D021 through D030, and D032 through D043

	SUMMARY	Y OF CONTAINER MA SAFETY-KLE EPA I	TABLE 11.2-2 NTAINER MANAGEMENT UNITS SUBJECTEI SAFETY-KLEEN SYSTEMS, INC. TAMPA, FL EPA ID NO: FLD 980 847 271	TABLE 11.2-2 SUMMARY OF CONTAINER MANAGEMENT UNITS SUBJECTED TO SUBPART CC SAFETY-KLEEN SYSTEMS, INC. TAMPA, FL EPA ID NO: FLD 980 847 271	ART CC		
HAZARDOUS WASTE MANAGEMENT UNIT	LOCATION OF HAZARDOUS WASTE MANAGEMENT UNIT	EPA HAZARDOUS WASTE CODES MANAGED	BRIEF WASTE DESCRIPTION	AVERAGE VOLATILE ORGANIC CONCENTRATION OF THE HAZARDOUS WASTE	CONTAINER	SUBPART CC STATUS	CONTROL OPTION (See Table 11.2-3)
Container Storage Area - Warehouse	See Figure 2.2-5	D001, F001, F002, F003, F005, AND codes listed on (Petroleum Naphtha), Dry Cleaner Wastes	Waste Parts Washer Solvent Washer Solvent (Petroleum Naphtha), Dry Cleaner Wastes	> 500	Type A	Container Level 1 Controls per 264.1086 ( c )	11
Return and Fill Area	See Figure 2.2-5	D001 and codes listed in Note below	Waste Parts Washer Solvent (Petroleum Naphtha)	> 500	Type A	Container Level 1 Controls per 264.1086 ( c )	11
Note: D004 through D011, D018, D019, D021 through D030,	1, D018, D019, D021 thr	ough D030, and D032 through D043	ough D043				

Appendix A Site Photographs Appendix B Chemical Analysis Reports

# 2011 Final Annual Recharacterization Waste Code Assignments - National

	WASTE STREAMS		WASTE	CODE CHANGES - NATIONA	
2010 NATIONAL Profile/SKDOT	General Description	2010 National Waste Codes	2011 National Waste Codes	Changes from 2010 to 2011	2011 NATIONAL Profile/SKDOT
150629 / 839	Aqueous Brake Cleaner	D039	D039	No Change	150100 / 839
150693 /16001 (Solid & Liq Mix), 150701 / 16012 (Solid - no D001), 150695 / 16003 (Liq)	Branch Contaminated Debris	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	No Change	150693 /16001 (Solid & Liq Mix), 150701 / 16012 (Solid - no D001), 150695 / 16003 (Liq)
150629 / 14952	Immersion Cleaner (IC 699)	D006, D008, D018, D027, D037, D039, D040, D042	D006, D008, D018, D027, D039, D040	Remove D037, D042	150629 / <b>950</b>
150045 / 704, 150085 / 801(RQ)	Parts Washer Solvent 105 Recycled	D001, D018, D039, D040	D001, D018, D039, D040	No Change	150045 / 704, 150085 / 801(RQ)
150379 / 11657 (Bulk)	Parts Washer Solvents (Bulked) / Combination of 105 and 150 (Aqueous, where applicable)	D001, D018, D039, D040	D001, D018, D039, D040	No Change	150379 / 11657 (Bulk)
150378 / 11656	Parts Washer Solvent Sludge/Dumpster Mud	D001, D039	D001, D039	No Change	150378 / 11656
150633 / 15001	Parts Washer Solvent Tank Bottoms (bulk)**	D039, D040	<b>D018</b> , D039, D040	Add D018	150633 / 6994701
150055 / 717	Parts Washer Solvent 150	D039	D039	No Change	150055 / 717
150055 / 717	PRF and PDF Mil Spec. Solvent	D039	D039	No Change	150055 / 717
150380 / 11658, 150425 / 12606(RQ)	Paint Gun Cleaner (SK)	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150380 / 11658, 150425 / 12606(RQ)
150426 / 12607, 150427 / 12608(RQ)	Clear Choice Paint Gun Cleaner	F003, D001, D018, D035, D039, D040	F003, D001, D018, D035, D039, D040	No Change	150426 / 12607, 150427 / 12608(RQ)
150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)	Paint Waste Other ***	F003, F005, D001, D018, D035, D039, D040	F003, F005, D001, D018, D035, D039, D040	No Change	150375 / 11653(ANY), 150376 / 11654(30), 150377 / 11655(55)
150589 / 14627	Dry Cleaner (Perc) Bottoms	F002, D007, D029, D039, D040	F002, D007, D029, D039, D040	No Change	150589 / 14627
150621 / 14906	Dry Cleaner (Perc) Filters	F002, D007, D029, D039, D040	F002, D007, D029, D039, D040	No Change	150621 / 14906
150591 / 14631	Dry Cleaner (Perc) Separator Water	F002, D029, D039, D040	F002, D029, D039, D040	No Change	150591 / 14631
150422 / 12565	Dry Cleaning Naphtha Bottoms	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150422 / 12565
150424 / 12569	Dry Cleaning Naphtha Filters	D001, D007, D039, D040	D001, D007, D039, D040	No Change	150424 / 12569
150423 / 12566	Dry Cleaning Naphtha Separator Water	D001, D039, D040	D001, D039, D040	No Change	150423 / 12566
150696 / 16004	Aqueous Parts Washer Tank Bottoms	D039, D040	D039, D040	No Change	150696 / 16004
150626 / 14949	Aqueous Parts Washer Dumpster Sludge	NONE	NONE	No Change	150626 / 14949
**	Parts washer solvent tank ho	ttoms are SK-generated wastes	from the cleanout of solvent store	age tanks.	
		t this waste stream from non-SK			
k frit	SKDOT 11653 is accentable	to use for any size container of p	paint waste.		
		30-gal paint waste to be listed se	THE RESERVE VICE		
	10.000	paint waste to be listed separate	7) 520		

# 5/26/2011

# NATIONAL UNDERLYING HAZARDOUS CONSTITUENTS FOR 2010 (Based on Analytical Data from 2007 thru 2009)

vent Tank ulk)	ene 229	T	255	255	101	102	ne 237																											
Parts Washer Solvent Tank Bottoms (bulk)	Tetrachloroethylene	Benzene	Cadmium	Lead	m-Cresol	p-Cresol	Trichloroethylene																											
ant Ind	229	248	250	251	255	237																												
Parts Washer Solvent Sludge/Dumpster Mud	Tetrachloroethylene	Barium	Cadmium	Chromium	Lead	Trichloroethylene																												
ints in of	29	250	251	255	260	229	237																											
Parts Washer Solvents (Bulked) Combination of 105 and 150	Benzene	Cadmium	Chromium	Lead	Silver	Tetrachloroethylene	Trichloroethylene																											
105	- 29	250	251	255	529	237																												
Parts Washer Solvent 105 (Recycled)	Benzene	Cadmium	Chromium	Lead	Tetrachloroethylene	Trichloroethylene																												
	118	239	240	29	250	251	255	100	211	260	229	237																						
Immersion Cleaner (IC 699)	1,4-Dichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Benzene	Cadmium	Chromium	Lead	o-Cresol	Pentachlorophenol	Silver	Tetrachloroethylene	Trichloroethylene																						
ebris	122	121	118	239	240	137	51	247	248	29	250	8	84	91	251	164	165	169	255	101	257	184	185	193	5	102	211	220	259	260	229	231	237	244
Branch Contaminated Debris	1,1-Dichloroethylene	1,2-Dichloroethane	1,4-Dichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dinitrotoluene	Acetone	Arsenic	Barium	Benzene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium	Hexachlorobenzene	Hexachlorobutadiene	Hexachloroethane	Lead	m-Cresol	Mercury	Methyl ethyl ketone	Methyl isobutyl ketone	Nitrobenzene	o-Cresol	p-Cresol	Pentachlorophenol	Pyridine	Selenium	Silver	Tetrachloroethylene	Toluene	Trichloroethylene	Vinyl chloride
Je.	250	184	529																															
Aqueous Brake Cleaner	Cadmium	Methyl Ethyl Ketone	Tetrachloroethylene																															

# 5/26/2011

# NATIONAL UNDERLYING HAZARDOUS CONSTITUENTS FOR 2010 (Based on Analytical Data from 2007 thru 2009)

Tetrachloroethylene 229 2,4,5-Trichlorophenol Cadmium 251 Barium Lead 255 Benzene Mercury 257 Cadmium Trichloroethylene 237 Chloroform Chromium Lead m-Cresol Mercury Methyl isobutyl ketone Pentachlorophenol Tetrachloroethylene Toluene Trichloroethylene Toluene Trichloroethylene Tri	239 1 51 2, 51 2, 248 67 67 67 91 91 101 101 100 100 100 100 100 100 1	1,1-Dichloroethylene 2,4,5-Trichlorophenol Cadmium Chloroform Chromium Chromium Lead Mercury Pentachlorophenol Silver Tetrachloroethylene Trichloroethylene m-Cresol p-Cresol	122							
250 251 257 257 237			239	1,1-Dichloroethylene	122	1,1-Dichloroethylene	122	Chromium	251	Chromium
251 255 257 237 237		Cadmium Chloroform Chromium Lead Mercury Pentachlorophenol Silver Tetrachloroethylene Trichloroethylene m-Cresol p-Cresol		2,4,5-Trichlorophenol	239	2,4,5-Trichlorophenol	239	2,4,5-Trichlorophenol	239	2,4,5-Trichlorophenol
257 237 237		Chloroform Chromium Lead Mercury Pentachlorophenol Silver Tetrachloroethylene m-Cresol p-Cresol	250	Cadmium	250	Cadmium	250	Lead	255	Lead
237		Chromium Lead Mercury Pentachlorophenol Silver Tetrachloroethylene m-Cresol p-Cresol	9	Chloroform	9	Chloroform	91	m-Cresol	101	m-Cresol
237		Lead Mercury Pentachlorophenol Silver Tetrachloroethylene m-Cresol p-Cresol	251	Chromium	251	Chromium	251	Nitrobenzene	193	Nitrobenzene
Chromium Lead		Mercury Pentachlorophenol Silver Tetrachloroethylene Trichloroethylene m-Cresol p-Cresol	255	Lead	255	Lead	255	p-Cresol	102	p-Cresol
Lead  m-Cresol  Mercury  Methyl ethyl ke  Methyl isobutyl ke  O-Cresol  Po-Cresol  Po-Cr		Silver Silver Tetrachloroethylene Trichloroethylene m-Cresol	257	Mercury	257	Mercury	257	Pentachlorophenol	211	Pentachlorophenol
m-Cresol Mercury Methyl ethyl ke Methyl isobutyl k o-Cresol p-Cresol Pentachloroph Tetrachloroethyl Trichloroethyl		Silver Tetrachloroethylene Trichloroethylene m-Cresol p-Cresol	211	henol	211	Pentachlorophenol	211	Pyridine	220	Pyridine
Methyl ethyl ke Methyl isobutyl k O-Cresol P-Cresol Pentachloroph Tetrachloroethyl Trichloroethyl		Tetrachloroethylene Trichloroethylene m-Cresol p-Cresol	260	Г	260	Silver	260	Tetrachloroethylene	229	Tetrachloroethylene
Methyl ethyl ke Methyl isobutyl k o-Cresol p-Cresol Pentachloroph Tetrachloroethyl Trichloroethyl	00 00 11 00 00 00 00 00 00 00 00 00 00 0	Trichloroethylene m-Cresol p-Cresol	229	Tetrachloroethylene	229	Tetrachloroethylene	229	Trichlorethylene	237	Trichlorethylene
Methyl isobutyl k O-Cresol P-Cresol P-Cresol Tetrachloroethyl Trichloroethyl Xylenes	00 00 11	m-Cresol p-Cresol	237	1	237	Trichloroethylene	237	Chlorobenzene	84	Chlorobenzene
o-Cresol p-Cresol Pentachloroph Tetrachloroethyl Trichloroethyl Xylenes	00 07 17 07 09	p-Cresol	5	m-Cresol	5	m-Cresol	101			
P-Cresol Pentachloroph Tetrachloroethyl Toluene Trichloroethyl	20 11 02		102	p-Cresol	102	p-Cresol	102			
Pentachloroph Tetrachloroethy Toluene Trichloroethyli Xylenes	# 6									
Tetrachloroethy Toluene Trichloroethyli Xylenes	oc									
Toluene Trichloroethyl Xylenes	7.0									
Trichloroethyle	231									
Xylenes	237									
	245									

NATIONAL UNDERLYING HAZARDOUS CONSTITUENTS FOR 2010 (Based on Analytical Data from 2007 thru 2009)

255 Chromium 256 Tetrachloroethylene 229 Cadmium 255 Lead 255 Lead 255 Lead 255 Lead 251 Trichlorophoenol 239 Cadmium 250 Chromium 251 Barium 102 p-Cresol 107 Trichlorethylene 237 Tetrachloroethylene 220 Pyridine 220 Tetrachloropthylene 237 Trichlorethylene 237 Trichlorethylene 237 Trichlorethylene 237 Trichlorethylene 237 Chromium 251 Barium 250 Deltachloroethylene 237 Trichlorethylene 237 Trichlorethyle	ters	Dry Cleaner Naphtha Separator Water	a	Aqueous Parts Washer Tank Bottoms	u e e	Aqueous Parts Wash Dumpster Sludge
2,4,5-Trichlorophenol 239 Cadmium 250 Lead 255 Lead 255 I mCresol 101 Trichlorethylene 237 Nitrobenzene 193 Chromium 251 P-Cresol 102 Pyridine 220 Tetrachloroethylene 237 Trichlorethylene 237 Chlorobenzene 84 Chlorobenzene 84	251	Chromium	251	Tetrachloroethylene	229	Cadmium
Dentaction   101   Trichlorethylene   237	239	2,4,5-Trichlorophenol	239	Cadmium	250	Chromium
1 m-Cresol 101 Trichlorethylene 237 2 p-Cresol 102 3 Chromium 251 4 Pentachlorophenol 211 6 Trichlorethylene 229 7 Trichlorethylene 237 Chlorobenzene 84	255	Lead	255	Lead	255	Lead
Nitrobenzene   193   Chromium   251	101	m-Cresol	5	Trichlorethylene	237	Tetrachloroethylene
2 p-Cresol 102 1 Pentachlorophenol 211 0 Pyridine 220 3 Trichlorethylene 237 Chlorobenzene 84 Chlorobenzene 84	193	Nitrobenzene	193	Chromium	251	Barium
Pentachlorophenol Dyridine Dyridine Tetrachloroethylene Chlorobenzene Chlorobenzene	102	p-Cresol	102			Silver
Pyridine Tetrachloroethylene Chlorobenzene	211	Pentachlorophenol	211			
Trichlorethylene Chlorobenzene	220	Pyridine	220			
Chlorobenzene 8	229	Tetrachloroethylene	229			
Chlorobenzene	237	Trichlorethylene	237			
	84	Chlorobenzene	84			

# Statistical Analysis of Annual Waste Characterization Data

Prepared by Robert D. Gibbons Ph.D.

for

Safety Kleen July 23, 1998

# 1 Introduction

Since 1990, Safety-Kleen has undertaken a major analytical study each year to document the contaminants in some of its most common waste streams to determine which TCLP waste codes should appear on the manifest for that waste. This Annual Waste Recharacterization Program is both expensive and extensive. Upon review, it appeared that regulatory agency instructions for how to interpret the data might not have been in line with current policy, as reflected in SW846. The general approach is based on development of an upper 90% confidence limit for the true concentration of each constituent, which can in turn be directly compared to regulatory standards to determine if the waste code should or should not be added to a particular waste stream (e.g., Premium Gold Parts Washer Solvent 150). The regulatory basis for this type of comparison stems from U.S. EPA SW846 Chapter 9 (September 1986) guidance on determining if a waste stream is hazardous.<sup>2</sup> The primary complicating feature is the presence of large numbers of nondetects which raises serious question regarding the use of the parametric approach. In light of this concern, nonparametric methods are used throughout.<sup>3</sup> Specifically, following U.S. EPA SW846, we construct a nonparametric 90% upper confidence limit (UCL) for the 50<sup>th</sup> percentile of the distribution (i.e., median), which is equivalent to the 90% UCL for the mean in the case of a symmetric distribution such as the normal distribution.

<sup>&</sup>lt;sup>1</sup>"Consequently, the CI employed to evaluate solid wastes is, for all practical purposes, a 90% interval." U.S. EPA SW846 (1986) chapter 9 page 6.

<sup>&</sup>lt;sup>2</sup>"The upper limit of the CI for μ is compared with the applicable regulatory threshold (RT) to determine if a solid waste contains the variable (chemical contaminant) of concern at a hazardous level. The contaminant of concern is not considered to be present in the waste at a hazardous level if the upper limit of the CI is less than the applicable RT. Otherwise the opposite conclusion is reached. "U.S. EPA SW846 (1986) chapter 9 page 3

<sup>&</sup>lt;sup>3</sup>"If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed. This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, April 1989, page 6-8

# 2 Method

Following Chapter 9 of SW846, the 90% UCL for the mean concentration obtained from a series of *n* representative samples is to be compared to the appropriate regulatory standard to determine if the waste stream is hazardous. If the UCL exceeds the standard, the waste stream is considered hazardous. The applicant must compute the UCL that is appropriate for the specific distributional form of the data. Given the large number of nondetects for many of the constituents, it is difficult if not impossible to clearly identify the underlying distributional form of the data. In this case, the U.S. EPA guidance indicates that a nonparametric alternative should be used.<sup>4</sup>

Nonparametric confidence limits are derived as follows. Given an unknown  $P \times 100$ th percentile of interest (e.g. the 50th percentile or median), where P is between 0 and 1, and n concentration measurements, the probability that any randomly selected concentration measurements being less than the  $P \times 100$ th percentile is simply P and the probability of exceeding the  $P \times 100$ th percentile is 1 - P. In light of this, the number of sample values falling below the  $P \times 100$ th percentile out of a set of  $P \times 100$ th percentile out of  $P \times 10$ 

The connection with the Binomial distribution can be used to determine an interval formed by a given pair of order statistics (i.e. ranked values) that will contain the percentile of interest, in this case the 50th percentile. Similarly, the Binomial distribution can also be used in constructing an upper limit (i.e. one-sided) for the percentile (e.g. a 90% upper confidence limit for the 50th percentile of the distribution). The computational formula for the cumulative binomial distribution B(x;n,p), representing the probability of getting x or fewer successes in n trials with success probability p is given by

$$Bin(x; n, p) \equiv \sum_{i=0}^{x} {n \choose i} p^{i} (1-p)^{n-i}$$

To draw inference regarding the P = 50th percentile, we set p = .5 in the previous equation. For a one-sided UCL we compute

$$1 - \alpha = 1 - Bin(U - 1; n, .5)$$

beginning from the sample median. We then increase U by one until in this case  $1 - \alpha$  is equal to at least .90. The smallest value of U that provides  $1 - \alpha \ge .9$  is then the order statistic (i.e., ranked value) that is the nonparametric 90% UCL for the 50th percentile of the distribution.

<sup>&</sup>lt;sup>4</sup> "If the data do not adequately follow the normal distribution even after logarithm transformation, a nonparametric confidence interval can be constructed." U.S. EPA, 1989

<sup>&</sup>lt;sup>5</sup> "This interval is for the median concentration (which equals the mean if the distribution is symmetric)." U.S. EPA (1989), page 6-8

# 3 Illustration

Consider the following most recent 50 data values for PCE (D039) obtained from Premium Gold Parts Washer Solvent-150.

Table 1
Premium Gold Parts Washer Solvent - 150
50 most recent samples in order of increasing concentration in ppm

<50.000	<1.000	< 0.100	< 0.100	< 0.100
< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
< 0.100	0.110	0.200	0.200	0.220
0.230	0.260	0.510	0.870	0.880
1.000	1.300	1.500	1.800	2.000
2.700	2.700	3.300	5.400	7.000
7.100	12.000	12.300	17.200	19.700
20.000	20.000	21.200	23.600	32.300
51.100	52.500	136.000	211.000	286.000
508.000	635.000	771.000	940.000	2810.000

For n =50, p =.5 and 1 -  $\alpha$  = .9, we find that U = 31 is the smallest order statistic that provides 90% confidence or more (1 -  $\alpha$  = .941). As such, we select the 31st largest value in Table 1 which is 7.1 ppm as our UCL. Since 7.1 ppm is larger than the standard of 0.7 ppm, then the D039 waste code is required for this waste stream.

# 4 Conclusion

The data in the following package have been interpreted using the methodology described. The waste codes for each stream were determined as those parameters for which the 90% UCL for the median concentration was above the regulatory limit, based on review of the last two years of samples or the most recent 50 samples, whichever yielded the larger number of samples to consider.

QUALIFIER REPORTING LIMIT Uth		88.
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Ranked Data 109 118 119 125 125 128 132	138 147 147 148 149 149 150 150 151 151 152 153 153 154 155 155 155 155 155 155 155 155 155	154 154 155 155 156 157 157
5		155 155 155 155 155 157 157
LAB SAMPLE ID C8H010298001 C0A060530001 C9J070314001 C8I100158001 C9IZ40366001 C9K120428001 C9H150188001 C9J200215001 C0D300525001	COH270471001 C9D240220001 C9D240220001 C8D24025001 C8H060186001 C8H250178001 C8G170336001 C8G170336001 C8F130243001 C8F130243001 C8F03010316001 C8E020248001 C8E020248001 C8E270351001	ARZ008 8-183-06-3 C0G090573001 C0I100591001 C8D300152001 C9F100111001 C9H050287001 C9J020304001 C9G230261001 C8F130240001 C8F130240001 C8F130240001 C8G310254001
BRANCH ID 714801 303101 700801 312101 619503 619301 714801 315401	619301 118308 218701 317101 312101 118308 210501 512701 819401 200401 218701	818306 619501 700801 202802 506501 714201 303102 619501 619501 306401
PARAMETER Flash Point	Flash Point	Flash Point
	PWS 150	PWS 150
State OR V A A V OR V A A V A A A A A A A A A A A A A A A	X = Z Z Z = Z = Z = Z = Z Z Z = Z Z = Z Z Z = Z Z Z = Z Z Z = Z Z Z Z = Z Z Z Z = Z	N A X X O N A M X M X W W W W W W W W W W W W W W W W

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C0F150554001 C0H270516001 C0F290517001 C8H220293001 C8H220293001 C8H3024001 C0E270561001 C0E270561001 C0E270561001 C0E270561001 C9H130144001 C8H130144001 C9H130144001 C9F12036001 C9F120357001 C9F120357001 C9E210293001 C9E210293001 C9E200531001 C9E200531001 C9E200531001 C9E200531001 C9E200531001 C9E200531001 C9E200531001 C9E200531001 C9E200531001	
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į	- C	Ciackamas	Charlotte	Albuquerque	Chesapeake	Dodge City	Tulsa	Clackamas	Chester	Archdale	Tulsa	Boise	Syracuse	Raleigh	Chesapeake	Boise	Barre	Vinton	<b>Grand Island</b>	Omaha	Nisku	Cohoes	Barre	Lackawanna	Syracuse	Langley	Wichita	Albuquerque	Avon	<b>Grand Island</b>	Chandler	St. Paul	Oklahoma City	Wichita	Dodge City	Chandler	Archdale
	Year Count	2008	2009	2009	2008	2009	2009	2009	2009	2010	2010	2009	2010	2008	2009	2008	2008	2010	2008	2008	2008	2008	2009	2008		2008 62	2010	2010	2008	2009	2009	2008	5009	2008	2008	2008	2009

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Lackawanna Chesapeake Grand Island Vinton Oklahoma City Raleigh Omaha Oklahoma City Raleigh Avon Tampa St. Paul Tallahassee Chester Lackawanna Raleigh St. Paul Sacramento Cohoes Wichita Charlotte Dodge City Archdale Avon Syracuse
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State	CLIENT ID Parts Washer Solvent Tank Bottoms	PARAMETER Flash Point	BRANCH ID	C9K120A27001	RESULT F	Ranked Data
( v.	Parts Washer Solvent Tank Bottoms	Flash Point	619503	C9H040289001	94.3 94.5	92.3 94.5
2 5	Parts Washer Solvent Tank Bottoms	Flash Point	716601	C8D030320001	6 46 5 6	6. 46 6. 40
KS	Parts Washer Solvent Tank Bottoms	Flash Point	619503	C71140349001	111	111
S	Parts Washer Solvent Tank Bottoms	Flash Point	715701	C0A200514001	114	114
Ζ	Parts Washer Solvent Tank Bottoms (Primary)	Flash Point	510302	C8J030260001	126	126
Z	Parts Washer Solvent Tank Bottoms	Flash Point	510302	C8J030263001	138	138
₽	Parts Washer Solvent Tank Bottoms	Flash Point	118308	C7E230277001	141	141
뵘	Parts Washer Solvent Tank Bottoms	Flash Point	506501	C7D180250001	141	141
S	Parts Washer Solvent Tank Bottoms	Flash Point	306401	C7A110170001	141	141
5	Parts Washer Solvent Tank Bottoms	Flash Point	716601	C7D060362001	141	141
2	Parts Washer Solvent Tank Bottoms	Flash Point	303102	C7B150117001	141	141
KS	Parts Washer Solvent Tank Bottoms	Flash Point	619501	C7K290231001	141	141
2	Parts Washer Solvent Tank Bottoms	Flash Point	118303	C8F130326001	141	141
₽	Parts Washer Solvent Tank Bottoms	Flash Point	118308	C8E200313001	141	141
KS	Parts Washer Solvent Tank Bottoms	Flash Point	619501	C8H080290001	141	141
KS KS	Parts Washer Solvent Tank Bottoms	Flash Point	619503	C8H200252001	141	141
₽	Parts Washer Solvent Tank Bottoms	Flash Point	118308	C9E090111001	141	141
숭	Parts Washer Solvent Tank Bottoms	Flash Point	612401	C9E210290002	141	141
CA	Parts Washer Solvent Tank Bottoms	Flash Point	708805	C91170278001	141	141
ΥZ	Parts Washer Solvent Tank Bottoms	Flash Point	714201	C9E130321001	141	141
5	Parts Washer Solvent Tank Bottoms	Flash Point	716601	C9D230261001	141	141
Z	Parts Washer Solvent Tank Bottoms	Flash Point	510301	C8H250154001	143	143
Z	Parts Washer Solvent Tank Bottoms (Primary)	Flash Point	510301	C8H250154001	143	143
Z	Parts Washer Solvent Tank Bottoms	Flash Point	510301	C8H250147001	145	145
Z	Parts Washer Solvent Tank Bottoms (Secondary)	Flash Point	510301	C8H250147001	145	145
Ş	Parts Washer Solvent Tank Bottoms	Flash Point	619503	C7C290244001	146	146
ŏ	Parts Washer Solvent Tank Bottoms	Flash Point	612401	C7H160260001	146	146
ð	Parts Washer Solvent Tank Bottoms	Flash Point	619301	C7H030212001	147	147
ŏ	Parts Washer Solvent Tank Bottoms	Flash Point	619301	C7H030212001	147	147
გ	Parts Washer Solvent Tank Bottoms	Flash Point	708805	C01090490001	150	150
S	Parts Washer Solvent Tank Bottoms	Flash Point	303102	C7G120391001	151	151
KS KS	Parts Washer Solvent Tank Bottoms	Flash Point	619501	C9F060175001	153	153
₽	Parts Washer Solvent Tank Bottoms	Flash Point	118308	C0H100558001	>200	>200
5	Parts Washer Solvent Tank Bottoms	Flash Point	716601	C0D220565001	>200	>200
ΚS	Parts Washer Solvent Tank Bottoms	Flash Point	619501	C9H040288001	>200	>200

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City Clackamas Dodge City Salt Lake City Dodge City Sacramento Eagan Eagan Boise Grand Island High Point	St. Paul Wichita Fargo Boise	Wichita Wichita Dodge City Boise	Oklahoma City Santa Ana Chandler Salt Lake City Blaine	Blaine Blaine Blaine Dodge City Oklahoma City Tulsa Tulsa	Sand And St. Paul Wichita Boise Salt Lake City Wichita
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_	C0H130587002	C0E270544001	C0E070586001	C9J070327001	L690481-7	AR2008 8-183-06-4	C8J010212001	C9H150181001	C9J210171001	C0G300401001	C8E080377001	C8F130327001	C8D250384001	C8E300294001	C8H140258001	C81240213001	C8F100278001	C8G110359001	C8J020303001	C8H080296001	C8C270313001	C81160280001	C8C290113001	C8G310249001	C8H010307001	C8D030325001	C9E070288001	C9D170184001	C9F230287001	C9F020146001	C9G220226001	C9H140216001	C9H050284001	C0D300566001	C81230214002
BRANCH ID 506501	714801	512701	118303	700801	819401	818306	303102	714801	316301	619503	715701	118303	118308	306401	307902	317101	506501	512701	612401	619501	619501	619503	619503	714201	714801	716601	118304	306401	317101	506501	512701	619301	714201	306401	303101
PARAMETER Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
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C9J230308001	C9C050268001	C9E300182001	C9C240205001	C0B250528001	C9H040287003	C0E210584002	C9D230264001	C9G280279001	C9H270363001	C0H100554002	C01100585001	C0F080554001	C8J080192001	C0G230578001	C0A060528001	C9D240216001	C01010519001	C0H270490001	C0G090577001	C0C240573001	C01130441001	C0D220556001
303102	619503	715701	619501	619501	619501	715701	716601	612401	619503	118308	700801	303102	619301	714201	303101	118308	612401	619301	619501	619503	700804	716601
Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
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St. Paul	Dodge City	Sacramento	Wichita	Wichita	Wichita	Sacramento	Salt Lake City	Oklahoma City	Dodge City	Boise	Albuquerque	St. Paul	Tulsa	Chandler	Charlotte	Boise	Oklahoma City	Tulsa	Wichita	Dodge City	Farmington	Salt Lake City
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Ranked Data	137	139	140	141	144	144	144	144	144	144	144	145	146	146	147	147	148	149	149	150	150	151	151	152	152	152	153	153	153	153	153	154	154	155	155
RESULT	137	139	140	141	144	144	144	144	144	144	144	145	146	146	147	147	148	149	149	150	150	151	151	152	152	152	153	153	153	153	153	154	154	155	155
COC240572001	C8D030319001	C8D020219001	C8E080372001	C8F250168001	C8C270311001	C9H120131001	C9H130288001	C9G220220001	C0E250588001	C0E210586001	C0D220541001	C8D020219002	C9L090651001	C0E070582001	C8F130323001	C9F020164001	C8E140173002	C9C280105001	C9D060180001	C8E140173001	C9H120129001	C8H010312001	C9C280106001	C9H120133001	C01080455001	C0F230520001	C81080102001	C9C280108001	C9C050273001	C9D230256001	C0D010556001	C9H270360001	C01080451001	C8H080305001	C9E070280001
BRANCH ID	716601	510301	715701	708805	619501	510301	510301	512701	506501	715701	716601	510301	409001	118303	506501	506501	510302	510301	510302	510302	510302	512701	510301	510302	510302	708805	619503	510302	619503	716601	510301	619501	510302	619501	118304
PARAMETER Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
CLIENT ID PWS BIJI K TANK	PWS BULK TANK	2009AR DIRTY SOLVENT	PWS BULK TANK	PWS BULK TANK #1	PWS BULK TANK secondary	PWS BULK TANK	PWS BULK TANK	PWS BULK TANK	PWS BULK TANK #2	PWS BULK TANK	SECONDARY PWS BULK TANK	PWS BULK TANK	PWS BULK TANK	PWS BULK TANK primary	PWS BULK TANK	PWS BULK TANK	PWS BULK TANK	PWS BULK TANK	PRIMARY PWS BULK TANK	PWS BULK TANK	PWS BULK TANK														
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155	155	155	156	157	157	157	158	158	158	158	
155	155	155	156	157	157	157	158	158	158	158	1
C9G160202001	C0D010550001	C0D010552001	C8C290120001	C8F130340001	C9C240206001	C9E300183001	C9H040285001	C0B250526001	C0G150565001	C0G300402001	C0D010557001
708805	510301	510302	619503	118303	619501	715701	619503	619501	619501	619503	510302
Flash Point											
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a to City	Wichita Blaine Blaine Omaha Grand Island Sacramento Satt Lake City Blaine Lexington Fargo	Grand Island Eagan Blaine Eagan Comaha Blaine Eagan Santa Anna Dodge City Eagan Satt Lake City Blaine Wichita Eagan
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Santa Ana	Blaine	Eagan	Dodge City	Fargo	Wichita	Sacramento	Dodge City	Wichita	Wichita	Dodge City	Eagan
2009	2010	2010	2008	2008	2009	2009	2009	2010	2010	2010	2010

Ranked Data	70	93	106	110	123	124	125	128	129	134	135	136	136	138	138	138	139	139	140	140	141	141	141	141	142	142	143	145	146	146	146	148	151	151	152	154
RESULT	70	63	106	110	123	124	125	128	129	134	135	136	136	138	138	138	139	139	140	140	141	141	141	141	142	142	143	145	146	146	146	148	151	151	152	154
LAB SAMPLE ID	C6G130367001	C7C290233001	C5H050370001	C7C290242001	C8H010302001	C6F290236001	C5H040119001	C6F290234001	C7C290234001	C5H050421001	C5H050416001	C5H040121001	C7C270254001	C6G070310001	C6G130375001	C7C290231001	C5H040125001	C5H050413001	C6G140261001	C7C270250001	C5H040118001	C5H050411001	C8H010296001	C9G160214001	C5H050407001	C6G130363001	C6G070307001	C9F060172001	C5H050403001	C5H040124001	C7C290237001	C0G230575001	C5H040123001	C5H040117001	C7C270262001	C5H040115001
<b>BRANCH ID</b>	642	7406	642	7406	714201	642	642	642	7406	642	642	642	7406	642	7406	7406	642	642	7406	7406	642	642	714801	708805	642	7406	642	715701	642	642	7406	714201	642	642	7406	642
PARAMETER	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point																								
CLIENTID	DRY CLEANING NAPHTHA BOTTOMS	<b>CLEANING NAPHTHA BOT</b>	<b>CLEANING NAPHTHA BOT</b>	DRY CLEANING NAPHTHA BOTTOMS	CLEANING NAPHTHA BOT	DRY CLEANING NAPHTHA BOTTOMS	DRY CLEANING NAPHTHA BOTTOMS	DRY CLEANING NAPHTHA BOTTOMS																												
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Chandler	Clackamas	Macon	Hebron	Hebron	Raleigh	Hebron	Clackamas	Vinton	Hebron
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UNITS	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F
Ranked Data	71.9	98.3	109	109	112	119	126	127	130	132	133	135	136	136	137	137	140	141	142	142	142	143	143	143	143	143	144	145	145	146	146	147	147	147	147	147
RESULT	71.9	98.3	109	109	112	119	126	127	130	132	133	135	136	136	137	137	140	141	142	142	142	143	143	143	143	143	144	145	145	146	146	147	147	147	147	147
LAB SAMPLE ID	C0A060531001	C01100588001	C8D250389001	C91250190001	C01010536001	C9J070308001	C9H060339002	C8D030324001	C0E210583001	C0H130591001	C9H140209001	C8H140264001	C8J010215001	C0H270487001	C81190319001	C8H010308001	C0H100556001	C9J210200001	C9K180603001	C0F080569001	C0E280545001	C81100151001	C81160291001	C8F130328001	C8H010309001	C9J230315001	C0F080564001	C81240224001	C8G110361001	C91110302001	C01030624001	C8H190265001	C8H070232001	L690481-3	C9F020157002	C9H150189001
<b>BRANCH ID</b>	303101	700801	118308	312101	612401	700801	210501	716601	715701	714801	619301	307902	303102	619301	612401	714201	118308	316301	715701	303102	512701	312101	315401	619501	714801	303102	317101	303101	512701	512701	315501	306401	317101	819401	506501	714801
PARAMETER	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
CLIENTID	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER	PETROLEUM IMMERSION CLEANER	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	90210-03 IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM		IC PETROLEUM
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147	149	149	149	150	150	151	151	152	152	153	154	154	156	156	156	157	164	167	183	184	185
147	149	149	149	150	150	151	151	152	152	153	154	154	156	156	156	157	164	167	183	184	185
C9J230318001	C8G170333001	C8H220133001	AR2008 8-183-06-1	C0G090578001	C0D220564001	C9D170187001	C9H050274001	C0H200524001	C0G300411001	C9D240219001	C8L130107001	C9H270356002	C9G240285001	C0F080577001	C0G230577001	C9D230265001	C0E040511001	C8F100285001	C8H140271001	C8E080375001	C9F060163001
315501	210501	315501	818306	619501	716601	306401	714201	312101	619503	118308	619503	619503	612401	506501	714201	716601	306401	506501	619301	715701	619501
Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IMMERSION CLEANER	IMMERSION CLEANER (PETROLEUM)	IC PETROLEUM	IMMERSION CLEANER	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM	IC PETROLEUM
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City	Charlotte	Albuquerque	Boise	Chesapeake	Oklahoma City	Albuquerque	Barre	Salt Lake City	Sacramento	Clackamas	Tulsa	Tallahassee	St. Paul	Tulsa	Oklahoma City	Chandler	Boise	Tampa	Sacramento	St. Paul	Omaha	Chesapeake	Chester	Wichita	Clackamas	St. Paul	Raleigh	Charlotte	Omaha	· Omaha	Vinton	Archdale	Raleigh	Nisku	<b>Grand Island</b>	Clackamas
Count																							28													
Year	2009	2010	2008	2009	2010	2009	2009	2008	2010	2010	2009	2008	2008	2010	2008	2008	2010	2009	2009	2010	2010	2008	2008	2008	2008	2009	2010	2008	2008	2009	2010	2008	2008	2008	2009	2009
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Vinton	Вапе	Vinton	Langley	Wichita	Salt Lake City	Archdale	Chandler	Chesapeake	Dodge City	Boise	Dodge City	Dodge City	Oklahoma City	Grand Island	Chandler	Salt Lake City	Archdale	Grand Island	Tulsa	Sacramento	Wichita
2009	2008	2008	2008	2010	2010	2009	2009	2010	2010	2009	2008	2009	2009	2010	2010	2009	2010	2008	2008	2008	2009

UNITS	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	No Units	No Units	No Units	deg F	No Units	No Units	No Units	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F	deg F				
Ranked Data	103	103	104	109	119	125	125	125	125	127	129	130	131	137	140	141	141	141	141	141	141	141	141	141	141	141	143	145	149	156	157	162	166	166	171	171
RESULT	103	103	104	109	119	125	125	125	125	127	129	130	131	137	140	141	141	141	141	141	141	141	141	141	141	141	143	145	149	156	157	162	166	166	171	171
LAB SAMPLE ID	C81250138001	C8J280217001	C91240188001	C9J050174001	C8H010297001	C81160283001	C9D240202001	C9G060153001	C9I300283001	C8H010293001	C9D230149001	C0D290562001	C9G140268001	C9D300323001	C8J140151001	C8D250371001	C81110167002	C81170158001	C8F130333001	C8G070112002	C8H010294001	C8E080373002	C8F260350001	C9D240199001	C9H130292001	C9G140267002	C9E300185001	C8H150265001	C8H070248001	C8G180266001	C8E300336001	C8J100444001	C9H270359001	C9J220186001	C8B060180001	C8D040110001
BRANCH ID	303101	612401	306401	708805	714201	619503	118308	716601	612401	714801	716601	306401	708802	303102	303102	118308	312101	315401	619501	708802	714801	715701	701501	118308	714201	717201	715701	717201	512701	708805	306401	619301	619503	315501	619503	716601
PARAMETER	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point
CLIENT ID	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOM	DRY CLEANING PERC BOTTOMS	Dry Cleaner Bottoms	Dry Cleaner Bottoms	Dry Cleaning PERC Bottoms	DRY CLEANING PERC BOTTOM	DRY CLEANING PERC BOTTOM	Dry Cleaner Bottoms	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOM	DRY CLEANING PERC BOTTOM	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOMS	Dry Cleaner Bottoms	DC Perc Filters	Dry Cleaner Bottoms	Dry Cleaner Bottoms	DC PERC Filters	DRY CLEANING PERC FILTERS	DRY CLEANING PERC BOTTOM	DRY CLEANING PERC BOTTOMS	Dry Cleaner Bottoms	Dry Cleaner Bottoms	Dry Cleaner Bottoms	Dry Cleaner Bottoms	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOMS	DRY CLEANING PERC BOTTOMS	Dry Cleaner Bottoms	Dry Cleaner Bottoms				
State	2	Š	2	Š	ΥZ	KS	₽	5	š	S R	5	S	8	2	S	₽	<b></b>	<b>∀</b>	KS	δ	OR R	S	S	₽	ΑZ	S	S	8	岁	CA	S	š	ΚS	<b>X</b>	ΚS	5

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174 7200 7	
C0A070446001 C9J210208001 C0J130447001 C0I130447001 C0I220564002 C0G230583001 C0I170621001 C0I170622001 C0I17062001 C0H100562001 C9H100170001 C9H100170001 C9H100170001 C9H10017001 C9H10017001 C9H10017001 C9H10017001 C9H10017001 C0H100565001 C0H100565001 C0H100565001 C0H200531001 C0H200531001 C0H200531001 C0H20053001 C0G300421001 C0G300421001 C0G230584001 C0G220433001 C0F290528001 C0F290528001	
303101 316301 708802 714201 714801 714801 714801 714201 714201 714201 714201 312101 312101 312101 312101 619301 619301 619503 700801 714201 715701 819401	
Flash Point	
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City	Charlotte	Oklahoma City	Archdale	Santa Ana	Chandler	Dodge City	Boise	Salt Lake City	Oklahoma City	Clackamas	Salt Lake City	Archdale	Los Angeles	St. Paul	St. Paul	Boise	Chesapeake	Chester	Wichita	Los Angeles	Clackamas	Sacramento	Fresno	Boise	Chandler	Highland	Sacramento	Highland	Omaha	Santa Ana	Archdale	Tulsa	Dodge City	Vinton	Dodge City	Salt Lake City
Count																												70								
	2008	2008	2009	2009	2008	2008	2009	2009	2009	2008	2009	2010	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009		2008	2008	2008	2008	2009	2009	2008	2008
UALIFIER REPORTING LIMIT Uth																ı	Ī	1	ı	1	ı	ı		1	I	1		43								

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Charlotte	Tampa	Farmington	Los Angeles	Chandler	Clackamas	Clackamas	Boise	Boise	Omaha	Wichita	Albuquerque	Fresno	Chandler	Clackamas	Clackamas	Chesapeake	Chester	Tulsa	Boise	St. Paul	Chesapeake	Raleigh	Omaha	Tulsa	Wichita	Dodge City	Albuquerque	Santa Ana	Chandler	Sacramento	Highland	Nisku	l andley
2009	2009	2010	2010	2010	2010	2010	2010	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2008

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State BC	CLIENT ID PAINT GUN CLEANER RELATED WASTE	PARAMETER Flash Point	BRANCH ID 818306 303102	LAB SAMPLE ID AR2008 8-183-06-7 C8 1040247004	RESULT 46.4	RANKED DATA 23.2 46
<u></u> 5	SUN	Flash Point	210501	C8J030261001	52.5	52.5
5	GUN	Flash Point	210501	C8J030261001	52.5	52.5
빙	PAINT GUN CLEANER RELATED WASTE	Flash Point	512701	C91110301001	55.8	55.8
<b>∀</b>	PAINT WASTE	Flash Point	315501	C01030616001	55.9	55.9
ð	PAINT GUN CLEANER RELATED WASTE	Flash Point	612401	C01010535001	57.9	57.9
H	PAINT GUN CLEANER RELATED WASTE	Flash Point	716601	C9D230268001	58.8	58.8
႕	PAINT GUN CLEANER RELATED WASTE	Flash Point	316301	C9J210206001	59.2	59.2
Α>	PAINT GUN CLEANER RELATED WASTE	Flash Point	315501	C9J210167001	59.2	59.2
5	PAINT GUN CLEANER RELATED WASTE	Flash Point	210501	C9K060551001	59.9	59.9
Υ	PAINT GUN CLEANER RELATED WASTE	Flash Point	714201	C9H050268001	60.5	60.5
S	PAINT GUN CLEANER RELATED WASTE	Flash Point	715701	C9E300184001	60.5	60.5
KS KS	PAINT GUN CLEANER RELATED WASTE	Flash Point	619501	C9F060173001	60.5	60.5
뮏	PAINT GUN CLEANER RELATED WASTE	Flash Point	512701	C8K140362001	60.5	60.5
뮏	PAINT WASTE	Flash Point	506501	C9F020139001	9.09	9.09
밀	PAINT WASTE	Flash Point	506501	C9F020162001	9.09	9.09
2	PAINT GUN CLEANER RELATED WASTE	Flash Point	317101	C9F120360001	6.09	6.09
5	PAINT WASTE	Flash Point	210501	C8H220142001	61.2	61.2
გ	PAINT GUN CLEANER RELATED WASTE	Flash Point	717201	C0F290513001	62.1	62.1
SC	PAINT GUN CLEANER RELATED WASTE	Flash Point	306401	C0D300552001	62.2	62.2
š	PAINT GUN CLEANER RELATED WASTE	Flash Point	612401	C9G230263002	62.2	62.2
빙	PAINT WASTE	Flash Point	506501	C0E250584001	62.5	62.5
밀	PAINT WASTE	Flash Point	506501	C8K250214001	62.8	62.8
Σ̈́Z	PAINT WASTE	Flash Point	700804	C01100572001	64.3	64.3
≸	PAINT WASTE	Flash Point	315401	C9J200210001	64.4	64.4
≸	PAINT WASTE	Flash Point	312101	C91250131001	65.1	65.1
₽	PAINT GUN CLEANER RELATED WASTE	Flash Point	118308	C0H110456001	65.7	65.7
⋝	PAINT GUN CLEANER RELATED WASTE	Flash Point	210501	C9F160275001	62.9	62.9
R	PAINT WASTE	Flash Point	714801	C0H130585001	62.9	62.9
S	PAINT GUN CLEANER RELATED WASTE	Flash Point	708802	C0F220566001	66.1	66.1
ΑZ	PAINT WASTE	Flash Point	714201	C0G230572001	66.2	66.2
ΣZ	PAINT GUN CLEANER RELATED WASTE	Flash Point	700801	C01100589001	66.3	66.3
뮏	PAINT WASTE	Flash Point	512701	C0E280559001	66.4	66.4
S S	PAINT GUN CLEANER RELATED WASTE	Flash Point	619501	C0G090574001	6.99	6.99
5	PAINT GUN CLEANER RELATED WASTE	Flash Point	716601	C0D220552001	67.1	67.1

69.9 70 70 70 70 70 70 70 70 70 70 70 70 70 7	83.2
69.9 70.7 70.7 70.2 70.6 70.6 70.6 70.6 70.8 71.2 71.2 71.2 71.2 72.3 72.3 72.3 73.8 74.8 75.8 76.8 77.1	83.2
C0H130584001 C0F080572001 C0F080572001 C0F080575001 C0F080372001 C9H060342001 C9H060342001 C9H150184001 C9H150184001 C9H150184001 C9H150184001 C9H150182001 C9H150182001 C8H100149001 C8H100149001 C8H100149001 C8H100149001 C8H100149001 C8H10030001 C8H10030001 C8H10030001 C0H205012001 C0H270474001 C0H270474001 C0H270474001 C0H270474001 C0H270474001 C0H270474001 C9D240227001 C8H140266001 C8F190337001 C8F190337001 C8F190337001	C8F190331001
714801 303102 317101 506501 714201 708805 612401 619301 714801 312101 315701 714801 306401 714201 714201 714201 714201 714201 714201 714201 714201 714201 714201 714201 716601 715701 619301 715701 619301 715501 715601	701501
	Flash Point
PAINT GUN CLEANER RELATED WASTE PAINT GUN CLEANER RELATED WASTE PAINT WASTE	PAINT WASTE
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83.2	91.1	94.2	98.7	119	<48	>200	>200	>200	
83.2	91.1	94.2	98.7	119	<48	>200	>200	>200	
C8F120293001	C8D250385001	C0G230574001	C9J230305001	C9J070325001	L690481-4	C9G300323001	C9G300315001	C8G020282001	
619501	118308	714201	303102	700801	819401	708802	717201	307902	
Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	
PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	-	PAINT GUN CLEANER RELATED WASTE		PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	
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City	St. Paul	Barre	Вате	Omaha	Vinton	Oklahoma City	Salt Lake City	Tampa	Vinton	Barre	Chandler	Sacramento	Wichita	Omaha	<b>Grand Island</b>	<b>Grand Island</b>	Raleigh	Barre	Highland	Archdale	Oklahoma City	Grand Island	<b>Grand Island</b>	Farmington	Chester	Chesapeake	Boise	Barre	Clackamas	Los Angeles	Chandler	Albuquerque	Omaha	Wichita	Salt Lake City
Count																								_		_	_		_	_	_		82	_	_
QUALIFIER REPORTING LIMIT Uth Year	2008	2008	2008	2009	2010	2010	2009	2009	2009	2009	2009	2009	2009	2008	2009	2009			2010	2010													49		2010
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UHC Evaluation		21.6			135				7 05	CO. /					10.0	12.2					68.7														
RESULT	7 6	50	28	32	2.9	5.8	5.6	7.3	8.3	8.5	8.7	8.7	3.4	3.8	15	17	17	17	24.4	38	47.6	79.6	154	0.66	0.69	0.74	1.4	7.	2.5	3.3	3.6	4.5	5.2	5.3	5.5
LAB SAMPLE ID	C8F120293001	C9G230263001	C8E300299001	C9G300315001	C9G230263001	C8E300299001	C8F120293001	C9G300315001	C0G230572001	C8E300299001	C9G230263001	C0E250584001	C8F120293001	C8F100283001	C8E300299001	C9G300315001	C9G230263001	C9G230263001	C9H060342001	C9H150192001	C8H010304001	C9H050268001	C0F080574001	C8F190307001	C0F220566001	C0F290513001	C9G300322001	C9H060342001	C8F190327001	C9J200210001	C0E250584001	C9J210206001	C8G310253001	C8H010304001	C0E280559001
BRANCH ID	619501	612401	306401	717201	612401	306401	619501	717201	714201	306401	612401	506501	619501	506501	306401	717201	612401	612401	714201	714801	714801	714201	317101	708802	708802	717201	701501	714201	717201	315401	506501	316301	714201	714801	512701
PARAMETER	2.4.5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4,6-Trichlorophenol	2-Methylphenol	2-Methylphenol	2-Methylphenol	2-Methylphenol	2-Methylphenol	2-Methylphenol	3+4-Methyiphenol	3+4-Methylphenol	3+4-Methylphenol	3+4-Methylphenol	3+4-Methylphenol	3+4-Methylphenol	Barium	Barium	Barium	Barium	Barium	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene
CLIENT ID	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE	PAINT GUN CLEANER RELATED WASTE	PAINT WASTE	PAINT WASTE	PAINT WASTE
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	Oklahoma City Archdale	Highland Oklahoma City	Archdale	Wichita	Chandler	Archdale	Oklahoma City	Grand Island	Wichita	Grand Island	Archdale	Highland	Oklahoma City	Oklahoma City	Chandler	Clackamas	Clackamas	Chandler	Raleigh	Los Angeles	Los Angeles	Highland	Fresno	Chandler	Highland	Chester	Grand Island	Tampa	Chandler	Clackamas	Omana
Year 2008 2008	2009	2009	2008	2008	2010	2008	2009	2010	2008	2008	2008	2009	2009	2009	2009	2009	2008	2009	2010	2008	2010	2010	2009	2009	2008	2009	2010	2009	2008	2008	20
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Fresno Vinton	Grand Island Barre	Chandler	Charlotte	Boise	Chandler	Clackamas	Clackamas	St. Paul	Wichita	St. Paul	Chesapeake	Albuquerque	Chandler	Grand Island	Omaha	Omaha	Clackamas	Chester	Boise	Vinton	Omaha	Oklahoma City	Salt Lake City	Sacramento	Grand Island	Fresno	Chandler	Boise	Vinton	Raleigh	Вагге	Raleigh	Archdale	Grand Island	
2010	2009	2009	2009	2008	2010	2010	2009	2010	2009	2009	2010	2009	2008	2008	2010	2008	2009	2008	2009	2008	2008	2008	2009	2008	2010	2008	2010	2010	2009	2009	2009	2010	2009	2008	
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Grand Island	Salt Lake City Tulsa	Barre	Barre	Chesapeake	Archdale	Omaha	Salt Lake City	Albuquerque		Oklahoma City	Barre	Clackamas	Tulsa	Charlotte	Sacramento	Oklahoma City	Chesapeake	Tallahassee	St. Paul	Farmington	Archdale	Clackamas	Chandler	Grand Island	Omaha	St. Paul	Tallahassee	Chester	Clackamas	Clackamas	Wichita	Archdale	St. Paul	Chesapeake	
2009	2010	2008	2008	2009	2010	2009	2008	2010	2008	2009	2008	2010	2010	2008	2009	2010	2008	2008	2008	2010	2008	2010	2010	2009	2010	2009	2008	2009	2009	2009	2010	2009	2010	2010	
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Grand Island Grand Island Raleigh Archdale Charlotte	Grand Island Vinton Wichita Albuquerque Chandler	Barre Chandler Boise Chester Wichita	Grand Island Chandler Los Angeles Langley St. Paul	Barre Barre Omaha Vinton Oklahoma City Salt Lake City Tampa	Barre Chandler Sacramento Wichita Omaha Grand Island
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2008	2008	2008	2010	2010	2010	2010	2008	2009	2008	2008	2008	2008	2008	2008	2008	2008	2010	2009	2009	2008	2009	2009	2008	2010	2008	2008	2008	2009	2010	2008	2010	2010	
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Grand Island Barre Boise Grand Island Langley Nisku	Vinton Santa Ana Santa Ana Hinhland	Los Angeles Sacramento Fresno	Fresho Highland Chandler	Langley Grand Island Oklahoma City	Vinton Clackamas	Santa Ana Barre	Barre Chandler Grand Island	Chester Omaha Omaha	Chandler Grand Island Raleigh Clackamas	Salt Lake City Boise
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Los Angeles Vinton	Raleigh	Barre	Archdale	Chandler	Clackamas	Salt Lake City	Clackamas	Chesapeake	Barre	Grand Island	Albuquerque	Oklahoma City	Archdale	Omaha	Tulsa	Chesapeake	Wichita	Wichita	Sacramento	Salt Lake City	Вагге	Tulsa	Omaha	Albuquerque	St. Paul	Wichita	Clackamas	Chesapeake	St. Paul	Charlotte	Omaha	Archdale	Sacramento	Chandler	Boise
2008	2009	2009	2009	2008	2009	2010	2009	2010	2009	2010	2009	2009	2010	2010	2008	2009	2010	2009	2008	2008	2008	2010	2008	2010	2008	2008	2008	2008	2010	2008	2009	2008	2009	2010	2010
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St. Paul	I allanassee Grand Island	Farmington	Chester	Fresno	Tulsa	Charlotte	Oklahoma City Tampa	Grand Island	Charlotte	Highland	Oklahoma City	Grand Island	Chandler	Grand Island	Chandler	Archdale	Barre	Tallahassee	Vinton	Wichita	Raleigh	Albuquerque	St. Paul	Charlotte	Highland	Tallahassee	Grand Island	Omaha	Fresno	Nisku	Chesapeake	Albuquerque	Archdale	Chandler
2009	2009	2010	2008	2008	2009	2009	2010	2008	2009	2009	2009	2008	2009	2010	2009	2008	2008	2008	2008	2008	2010	2009	2008	2008	2008	2008	2009	2008	2008	2008	2008	2010	2009	2008
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Grand Island	Chandler	Wichita	Omaha	Barre	Grand Island	Sacramento	Sacramento	Salt Lake City	Barre	Barre	St. Paul	Barre	Archdale	Vinton	Oklahoma City	Chesapeake	Chandler	Omaha	Wichita	Santa Ana	Wichita	Tampa	Barre	Boise	Boise	Los Angeles	Charlotte	Grand Island	Grand Island	Chester	Tulsa	Chandler	Fresno	Clackamas	Clackamas	Clackamas
2009	2010	2010	2009	2009	2010	2009	2008	2008	2008	2008	2009	2008	2008	2008	2009	2009	2010	2010	2009	2008	2008	2009	2009	2010	2009	2010	2009	2010	2008	2008	2010	2009	2010	2010	2009	2009
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            Oklahoma City
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Chester
                  Salt Lake City
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Clackamas
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Santa Ana
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Highland Vinton	Chandler	Los Angeles	Chandler	Omaha	Chandler	Chester	Grand Island	Barre	Barre	Grand Island	Clackamas	Chandler	Oklahoma City	Salt Lake City	Boise	Albuquerque	Boise	Farmington	Chandler	Tulsa	Chesapeake	Charlotte	Salt Lake City	Albuquerque	Oklahoma City	Fresno	Wichita	Omaha	Chester	Татра	Sacramento	Wichita	Salt Lake City		St. Paul	
2008	2008	2008	2010	2008	2009	2009	2010	2008	2008	2009	2010	2009	2010	2010	2009	2009	2010	2010	2010	2010	2010	2009	2009	2010	2009	2009	2009	2010	2008	2009	2009	2008	2008	2009	2009	
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	

Chandler Raleigh Omaha Raleigh Sacramento Tallahassee Grand Island Omaha St. Paul Clackamas Barre Charlotte St. Paul Grand Island Chesapeake Chesapeake Barre Archdale Tulsa Fresno Clackamas Archdale Vinton Clackamas Raleigh St. Paul	Omaha Omaha Chesapeake Archdale Vinton Fresno Chandler Omaha Farmington Salt Lake City
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Wichita	Grand Island	i arripa Oklahoma Citv	Oklahoma City	Chandler	Sacramento	Barre	Barre	Oklahoma City	Albuquerque	Barre	Albuquerque	Tulsa	Boise	Charlotte	Fresno	Grand Island	Wichita	Clackamas	Chandler	St. Paul	Omaha	Salt Lake City	Chester	Tulsa	Vinton	Wichita	Clackamas	Sacramento	Tulsa	Clackamas	Archdale	Clackamas	Chesapeake	Barre	Tallahassee	
2009	2010	2010	2009	2010	2009	2008	2008	2008	2010	2009	2009	2008	2010	2009	2008	2009	2008	2010	2008	2009	2009	2008	2008	2010	2009	2010	2009	2008	2009	2009	2009	2008	2009	2009	2008	
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        Charlotte

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        2008
        St. Paul

        mg/L
        2008
        Barre

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BRANCH ID 306401 303101 118308 708805	210501 118308 200401 202801	202602 218701 306401 307902 312101 315401	315501 317101 506501 512701 619503	714201 714801 200401 202801 218701 303102 31701	317101 506501 512701 619501 619503 700801 714201
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C9H150183001 C9K040514001	C0A060525002	C9J200211001	C9J210170001	C0H110453001	C0D150478001	C0F080567001	C0E040499001	C0H190546001	C0F080561001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0E200543001	C0H130589001	AR 2008 8-183-06-6	L690481-1			
714801	303101	315401	316301	118308	218701	303102	306401	312101	317101	512701	619503	700801	714201	715701	714801	818306	819401			
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Count	52
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Clackamas	Barre	Charlotte	Chester	Tampa	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Clackamas	Langley	Nisku
2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2008

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RESULT 0.025 0.02 0.02 0.02 0.02 0.02 0.02 0.0
LAB SAMPLE ID COH130589001 C8D250377001 C8E020268001 C8E010342001 C8E010342001 C8E010342001 C8E010342001 C8E100165001 C8H20289001 C8H070234001 C8H070234001 C8H070234001 C8H070234001 C8H070234001 C8H070234001 C9C290124001 C9C290124001 C9C290124001 C9C290124001 C9C280118001 C9J200211001 C9J200211001 C9J200211001 C9J2002031001 C9C280118001 C9C280118001 C9C280118001 C9C280118001 C9C280118001 C9C280118001 C9C280118001 C9H060338001 C9H060338001 C9H060338001 C9H060338001 C9H060338001
BRANCH ID 714801 118308 200401 202801 210501 312101 315501 317101 506501 512701 619503 714201 714801 202802 202801 202802 218701 317101 512701 619503 714201 714801 118308 218701 303102 317101
PARAMETER  1,1-Dichloroethylene
AQUEOUS BRAKE CLEANER
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C0H190546001 C0F080561001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0E200543001	C9F020166001	C81230210001	C0F170598001	C8I160293001	C8D300169001	C91250187001	C8H140249001	L690481-1	C9D240224001	AR 2008 8-183-06-6	C9D220166001	C9F060171001	C0H130589001	C8D250377001	C8E020268001	C8F270350001	C8J220307001	C8E010342001	C8E300332001	C8I100165001	C8H220289001	C8H060181001	C8F100244001	C8H070234001	C8F110360001	C8C290124001	C8G310258001	C8H010301001	C9E210295001	C9C280118001	
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0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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0.2	0.58	0.04	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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619503 512701 317101	700801	303102	303101	118308	200401	202801	202802	210501	218701	303101	307902	312101	315401	315501	317101	506501	512701	619501	619503	714201	714801	818306	210501	315401	316301	118308	200401	202801	202802	218701	306401	317101	506501
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3+4-Methylphenol	Arsenic
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Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	Benzene	
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C9C280114001 C0A060525001 C9G080303001 C9J200211001 C9J200211001 C9J200311001 C9H270361001 C9H270361001 C9H270361001 C9H27036001 C9H27036001 C9H170453001 C0E040499001 C0E040499001 C0E040499001 C0E040499001 C0E04049001 C0E040407001 C0E200543001 C0E200543001 C0E200543001 C0E200543001 C0E200543001 C0E200543001 C0E200543001 C0E200543001	C8H140249001 L690481-1 C9D240224001 AR 2008 8-183-06-6 C9D220166001 C9F060171001 C8D250377001 C8F270350001
218701 303102 315401 315401 315401 317101 512701 619503 708805 714201 714201 317101 317101 317101 512701 619503 700801 714201 715701 506501 303101 715701 506501 315401	307902 819401 118308 818306 306401 619501 118308
Chloroform	Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform Chloroform
BRAKE BRAKE	
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0.05 0.05 0.05 0.05 0.05	0.05 0.05 0.05	0.05 0.05 0.05	0.05 0.05 0.05	0.05 0.25 0.5	0.5 0.05 0.056	0.06 0.062 0.072	0.074 0.079 0.085	0.0 0.1 0.1 0.11	0.12 0.12 0.12 0.19
C8D300169001 C8E010342001 C8I230210001 C8I100165001 C8H070234001	C9D020219001 C9C280114001 C0A060525001	C9I250187001 C9F060171001 C9H060338001 C0D150478001	C0F080567001 C0F090489001 C0H170462001	C0F170598001 C0F080561001 L690481-1	C9F020166001 C8I160293001 C9E210295001	C9F120356001 C9J200211001 C8E300332001	C9K040514001 C8H220289001 C9H070331001	C8J220307001 C8J220307001 C9H150183001 C9G080303001	C8H140249001 C9C280118001 C9D220166001 C8H060181001 C9H270361001
202802 218701 303101 312101 512701	202802 218701 303101	312101 619501 708805 218701	303102 512701 700801	708805 317101 819401	506501 315401 200401	317101 315401 306401	210501 315501 512701	7 1420 1 21050 1 71480 1 303102	307902 202801 306401 317101 619503
Chromium Chromium Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium	Chromium Chromium Chromium Chromium
AQUEOUS BRAKE CLEANER	BRAKE BRAKE BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CI FANER	BRAKE BRAKE BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE BRAKE BRAKE	BRAKE BRAKE BRAKE	BRAKE BRAKE BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE BRAKE BRAKE BRAKE BRAKE
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0.19	0.27	0.31	0.35 0.43	0.45	0.52	9.0	0.73	6.0	0.94	1.2	<del>1</del> .8	2.4	71	118	131	142	149	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
C9J020311001 C0G230402001	CSD240224001 COH110453001	C8F100244001	C0E200345001 C0H130589001	C0E040499001	C8C290124001	C9H040286001	C0H190546001	AR 2008 8-183-06-6	C8E020268001	C8F110360001	C9J210170001	C0G300407001	C9D220166001	C81230210001	C9D240224001	C0F170598001	C8J220307001	C8D250377001	C8E020268001	C8F270350001	C8D300169001	C8E010342001	C8E300332001	C8H140249001	C81100165001	C8I160293001	C8H220289001	C8H060181001	C8F100244001	C8H070234001	C8F110360001	C8C290124001	C8G310258001
700801 714201	118308	506501	714801	306401	619503	714201	312101		200401	619501	316301	619503	306401	303101	118308	708805	210501	118308	200401	202801	202802	218701	306401	307902	312101	315401	315501	317101	506501	512701	619501	619503	714201
Chromium Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Chromium	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point	Flash Point				
AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE		BRAKE	AQUEOUS BRAKE CLEANER		AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	_		BRAKE	BRAKE		AQUEOUS BRAKE CLEANER	_	BRAKE	_			BRAKE CL	AQUEOUS BRAKE CLEANER
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C8H010301001 C9E210295001 C9C280118001 C9C280114001 C9C280114001 C9C280114001 C9C280114001 C9F120356001 C9F120356001 C9F120356001 C9F120356001 C9H070331001 C9H070331001 C9H070331001 C9H070311001 C9H070011 C9H070011 C0H110453001 C0D150478001	C0H190546001 C0F080561001 C0F090489001 C0G300407001 C0H170462001 C0E200543001 C0H130589001 AR 2008 8-183-06-6 L690481-1 AR 2008 8-183-06-6 C0A060525001
714801 200401 202801 202802 218701 303102 317101 516501 619503 708805 714201 714801 210501 303101 303102 303102	312101 317101 512701 619503 700801 714201 715701 714801 818306 819401 818306
Flash Point	Flash Point Hexachlorobenzene Hexachlorobenzene Hexachlorobenzene
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Hexachlorobenzene	Hexachlorobenzene
AQUEOUS BRAKE CLEANER	BRAKE
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118308 218701 303102	312101	512701	619503	700801	714201	714801	619503	818306	819401	303101	303102	118308	200401	202801	202802	210501	218701	303101	306401	307902	312101	315401	315501	317101	506501	512701	619501	619503	714201	714801	118308	200401
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0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.01	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
C9C280118001 C9D020219001	C9K040514001	C9C280114001	C9D220166001	C91250187001	C9J200211001	C9J210170001	C9F120356001	C9F020166001	C9H070331001	C9F060171001	C9J020311001	C9H040286001	C9H150183001	C0H110453001	C0D150478001	C0F080567001	C0E040499001	C0H190546001	C0F080561001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0H130589001	C9H270361001	AR 2008 8-183-06-6	L690481-1	C0A060525001	C9G080303001	C8D250377001	C8E020268001	C8F270350001	C8D300169001	C8J220307001	C8E010342001
202801	210501	218701	306401	312101	315401	316301	317101	506501	512701	619501	700801	714201	714801	118308	218701	303102	306401	312101	317101	512701	619503	700801	714201	714801	619503	818306	819401	303101	303102	118308	200401	202801	202802	210501	218701
Hexachlorobutadiene Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachlorobutadiene	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane
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1.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
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C8I230210001	C8H140249001	C81100165001	C81160293001	C8H220289001	C8H060181001	C8F100244001	C8H070234001	C8F110360001	C8C290124001	C8G31025800	C8H010301001	C9D240224001	C9E210295001	C9C280118001	C9D020219001	C9K040514001	C9C280114001	C9D220166001	C91250187001	C9J200211001	C9J210170001	C9F120356001	C9F020166001	C9H070331001	C9F060171001	C9J0Z0311001	C9H040286007	C9H150183007	C0H110453001	C0D150478001	C0F080567001	C0E040499001	C0H190546001	C0F080561001	C0F090489001	
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Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	Hexachloroethane	-lexachloroethane	
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C0G300407001 C0H170462001 C0G230402001 C0H130589001 C9H270361001 C8D250377001 C8F270350001 C8E010342001 C8E1100165001 C8I160293001 C8H070234001	C9C280114001 C9C280114001 C9F120356001 C9H070331001 C9F060171001 C0D150478001 C0F090489001	C0F170598001 C0A060525001 C9G080303001 C9F020166001 AR 2008 8-183-06-6 L690481-1 C8H20289001 C8H20289001 C8H010301001 C8G310258001 C9E210295001 C9E210295001 C9J020311001 C8J220307001 C9H060338001 C9H060338001
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mg/L	g/r	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
80.0	0.091	0.092	0.1	0.11	0.12	0.16	0.16	0.16	0.18	0.18	0.19	0.21	0.22	0.26	0.32	0.32	0.36	0.52	0.63	0.64	4.4	0.0002	0.0002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	
C9J200211001	C9H150183001	C8F100244001	C9D240224001	C8H140249001	C0H170462001	C8E020268001	C8I230210001	C0G230402001	C9D220166001	C0H110453001	C0E040499001	C0F080561001	C0H190546001	C9K040514001	C8C290124001	C9 250187001	C8F110360001	C9H270361001	C9H040286001	C9J210170001	C0G300407001	C0A060525001	C9G080303001	C8D250377001	C8E020268001	C8F270350001	C8D300169001	C8J220307001	C8E010342001	C81230210001	C8E300332001	C8H140249001	C81100165001	C8I160293001	C8H220289001	
315401	714801	506501	118308	307902	700801	200401	303101	714201	306401	118308	306401	317101	312101	210501	619503	312101	619501	619503	714201	316301	619503	303101	303102	118308	200401	202801	202802	210501	218701	303101	306401	307902	312101	315401	315501	
Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Mercury	Mercury	Mercury	Mercury	Mercury	Mercury	Mercury								
AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER	_		BRAKE	AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	BRAKE	BRAKE	<b>BRAKE</b>	BRAKE	BRAKE		BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	BRAKE	BRAKE (	BRAKE	BRAKE (	BRAKE (	BRAKE (	BRAKE (	BRAKE	BRAKE	BRAKE	<b>BRAKE</b> (	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	
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C8H060181001 C8F100244001 C8H070234001 C8H070234001 C8F110360001 C8C290124001 C8C310258001 C8C310258001 C9D240224001 C9D240224001 C9D220118001 C9C280118001 C9C280118001 C9C280118001 C9C28011001 C9C28011001 C9C28011001 C9C28011001 C9C28011001 C9C28011001 C9C28011001 C9C28011001 C9C0017001 C9H060338001 C9H060338001 C9H060338001 C9H060338001 C0H10453001 C0F080567001 C0F080561001	C0F170598001 C0G230402001 C0E200543001
317101 506501 619501 619503 714201 714801 118308 202801 202801 202801 202801 315401 315401 315401 315701 619503 708805 714801 118308 218701 306401 317101 317101 317101	708805 714201 715701
Mercury	Mercury Mercury Mercury
AQUEOUS BRAKE CLEANER	BRAKE BRAKE BRAKE
S	SAS

mg/L mg/L mg/L mg/L	mg/L mg/L mg/L	7/5 2/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7	30/L 30/L 30/L 30/L	mg/L mg/L mg/L mg/L	mg/L mg/L mg/L mg/L
0.002 0.01 0.03 0.2	00000	,	,	00000000	0.2 0.2 0.2 0.2 0.2 0.5 0.5
C0H130589001 AR 2008 8-183-06-6 L690481-1 C9F020166001 C8D250377001 C8E02268001	C8F270350001 C8E010342001 C8E300332001 C8I100165001	C8H060181001 C8H070234001 C8H110360001 C8H010301001	C9C280118001 C9C280118001 C9C020219001 C9C280114001 C9C2801001	C9J200211001 C9J210170001 C9H070331001 C9H270361001 C9H060338001 C9H040286001 C0H110453001	C0D150478001 C0F080567001 C0F080561001 C0F090489001 C0H170462001 C0E200543001 C9F020166001 C8I230210001
714801 818306 819401 506501 118308 200401	202801 218701 306401 312101	317101 512701 619501 714801	202801 202802 210501 218701 303102	315401 316301 512701 619503 708805 714201 118308	218701 303102 306401 317101 512701 715701 506501
Mercury Mercury Mercury Mercury Mercury Methyl Ethyl Ketone	Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone	Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone	Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone	Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone Methyl Ethyl Ketone	Methyl Ethyl Ketone Methyl Ethyl Ketone
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C0F170598001 C8I160293001 C8I160293001 C8D300169001 C9I250187001 C8H140249001 L690481-1 C9D220166001 C0H130589001 C9F120356001 C9F120356001 C0H130589001 C0H130589001 C0H130589001 C0H130589001 C9F120356001 C9F120356001 C9F120356001 C9F120356001 C9F12035001 C9F12035001 C0A060525001 C9G300407001 C9C08300171001 AR 2008 8-183-06-6 L690481-1 C0A060525001 C9G080303001 C8C200268001 C8C200268001 C8C20068001 C8C20068001 C8C200169001 C8C20030001	C8H140249001 C8H100165001 C8H60293001
708805 315401 202802 312101 307902 819401 118308 818306 306401 714201 303101 619503 714201 700801 619503 714201 303101 303102 118308 200401 202801 218701 303101	307902 312101 315401
Methyl Ethyl Ketone Methyl	Nitrobenzene Nitrobenzene Nitrobenzene
AQUEOUS BRAKE CLEANER	BRAKE BRAKE BRAKE
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mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
0.0		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	
C8H220289001	C8F100244001	C8H070234001	C8F110360001	C8C290124001	C8G310258001	C8H010301001	C9D240224001	C9E210295001	C9C280118001	C9D020219001	C9K040514001	C9C280114001	C9D220166001	C91250187001	C9J200211001	C9J210170001	C9F120356001	C9F020166001	C9H070331001	C9F060171001	C9J020311001	C9H040286001	C9H150183001	C0H110453001	C0D150478001	C0F080567001	C0E040499001	C0H190546001	C0F080561001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0H130589001	C9H270361001	
315501	506501	512701	619501	619503	714201	714801	118308	200401	202801	202802	210501	218701	306401	312101	315401	316301	317101	506501	512701	619501	700801	714201	714801	118308	218701	303102	306401	312101	317101	512701	619503	700801	714201	714801	619503	
Nitrobenzene Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	Nitrobenzene	
AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	<b>BRAKE</b> (	BRAKE	AQUEOUS BRAKE CLEANER			<b>BRAKE</b>	_	AQUEOUS BRAKE CLEANER	BRAKE	-	BRAKE	BRAKE	_	BRAKE	AQUEOUS BRAKE CLEANER			BRAKE	_	BRAKE	<b>BRAKE</b>	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	BRAKE		BRAKE	BRAKE		BRAKE CL	AQUEOUS BRAKE CLEANER	
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0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.25	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
AR 2008 8-183-06-6 L690481-1	C8D250377001	C8E020268001	C8D300169001	C8E010342001	C8E300332001	C8C290124001	C0A060525001	C9G080303001	C8F270350001	C8J220307001	C81230210001	C8H140249001	C81100165001	C81160293001	C8H220289001	C8H060181001	C8F100244001	C8H070234001	C8F110360001	C8G310258001	C8H010301001	C9D240224001	C9E210295001	C9C280118001	C9D020219001	C9K040514001	C9C280114001	C9D220166001	C91250187001	C9J200211001	C9J210170001	C9F120356001	C9F020166001	C9H070331001	C9F060171001	
818306 819401	118308	200401	202802	218701	306401	619503	303101	303102	202801	210501	303101	307902	312101	315401	315501	317101	506501	512701	619501	714201	714801	118308	200401	202801	202802	210501	218701	306401	312101	315401	316301	317101	506501	512701	619501	
Pentachlorophenol Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	Pentachlorophenol	<b>Pentachlorophenol</b>	
AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER		AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER			AQUEOUS BRAKE CLEANER	_		AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	_	BRAKE	BRAKE	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER												
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mg/L mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	1	No Units	1	1	No Units	No Units	No Units	1	No Units	ı	1	1	No Units	No Units	No Units	No Units	No Units	1	f	No Units	No Units	No Units
0.00	0.5	0.0 2.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	<del></del>	0.51	5.6	7.6	7.6	7.7	7.9	7.9	7.9	7.9	8.1	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.4	8.4	8.4
C9J020311001 C9H040286001 C9H150183001	COH110453001	C0D150478001	C0E040499001	C0H190546001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0H130589001	C9H270361001	C0F080561001	C0H130589001	C8C290124001	C9J210170001	C0G230402001	C9C280118001	C9H070331001	C9F060171001	C0H170462001	C8H220289001	C9H150183001	C0E040499001	C0F170598001	C8H140249001	C8F110360001	C9C280114001	C8E010342001	C8G310258001	C0D150478001	C0G300407001	C8F270350001	C8H070234001	C8H010301001
700801 714201 714801	118308	218701	306401	312101	512701	619503	700801	714201	714801	619503	317101	714801	619503	316301	714201	202801	512701	619501	700801	315501	714801	306401	708805	307902	619501	218701	218701	714201	218701	619503	202801	512701	714801
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AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE OF FANER	BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER		BRAKE	BRAKE	BRAKE	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	_	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	_	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	BRAKE	_	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	BRAKE	_	AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER
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AR 2008 8-183-06-6 C0F090489001 C8E100244001	C9J020311001	C8E300332001 C8I160293001	C9K040514001	C9D220166001	C0E200543001	C9G080303001	C0F080567001	C8J220307001	C8H060181001	C9E210295001	C9F120356001	C0F080561001	C9J200211001	C8D300169001	C9F020166001	C9H270361001	C9H040286001	C8E020268001	C9D240224001	L690481-1	C81230210001	C0H190546001	C81100165001	C0H190546001X	C0A060525002	C91250187001	C9H060338001	C8D250377001	C9D020219001	C0H110453001	C0A060525001	C9G080303001	C8D250377001
818306 512701 506501	700801	306401 315401	210501	306401	715701	303102	303102	210501	317101	200401	317101	317101	315401	202802	506501	619503	714201	200401	118308	819401	303101	312101	312101	312101	303101	312101	708805	118308	202802	118308	303101	303102	118308
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AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	_	AQUEOUS BRAKE CLEANER		AQUEOUS BRAKE CLEANER			AQUEOUS BRAKE CLEANER		AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER															
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0.0000 8.8.8.8.8	0 0 0	0.5 0.5 0.5	0 0 C	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5 5.4	0.5
C8E020268001 C8F270350001 C8D300169001 C8J220307001 C8E010342001	C8E300332001 C8E1140249001	C81100165001 C81160293001 C8H220289001	C8H060181001 C8F100244001 C8H070234001	C8F110360001 C8C290124001	C8G310258001 C8H010301001	C9D240224001 C9E210295001	C9C280118001	C9K040514001	C9D220166001	C91250187001 C9J200211001	C9J210170001	C9F120356001 C9F020166001	C9H070331001	C9F060171001	C9J0Z0311001	C9H040286001	C9H150183001	C0D150478001
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AQUEOUS BRAKE CLEANER	BRAKE	BRAKE BRAKE BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE	BRAKE	BRAKE	BRAKE	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER	BRAKE
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303102 306401 312101 312101 512701 619503 700801 714201 714801 714801 202801 202801 303101 30501 506501 619501 714801 714801	210501 218701 303101 303102 306401
Pyridine Selenium	Selenium Selenium Selenium Selenium Selenium
	AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER AQUEOUS BRAKE CLEANER
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312101 316301 317101 512701 619503 700801 714201 714801 714801 714801 714801 714801 714801 818306 317101 819401 506501 315401 714201 315401 315401	200401 202801 202802 202802 210501 303101
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619503 700801 708805 714201 715701	317101 818306 819401 506501	315501 714801 118308	202801 218701	312101 315501 317101	506501 619503 714201	714801 210501 303101	316301 202801 303102 317101	512701 512701 619503 700801	708805 714201 714801 218701 303102
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mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
0.2	0.2	0.2	0.21	0.5	2.5	25	100	1000	1200	0.2	0.23	0.31	99.0	0.74	0.8	1.2	4.1	4.1	4.9	5.6	7.4	8.9	13	13	36	75	200	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2
C0E040499001	C0G230402001	C0E200543001	C9F020166001	C0F170598001	C91250187001	C9D240224001	AR 2008 8-183-06-6	C9D220166001	C9F060171001	L690481-1	C8J220307001	C8E300332001	C8I230210001	C9D020219001	C8F110360001	C0H110453001	C0H170462001	C9J200211001	C9E210295001	C0F090489001	C9C280114001	C0H190546001R2	C81160293001	C8H070234001R2	C0G300407001R2	C8D300169001	C8H140249001	C0H130589001	C8D250377001	C8E020268001	C8F270350001	C8J220307001	C8E010342001	C8E300332001	C81100165001
306401	714201	715701	506501	708805	312101	118308	818306	306401	619501	819401	210501	306401	303101	202802	619501	118308	700801	315401	200401	512701	218701	312101	315401	512701	619503	202802	307902	714801	118308	200401	202801	210501	218701	306401	312101
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C9H070331001	C9H270361001	C9J020311001	C9H060338001	C9H040286001	C9H150183001	C0H110453001	C0D150478001	C0F080567001	C0E040499001	C0H190546001	C0F080561001	C0F090489001	C0G300407001	C0H170462001	C0G230402001	C0E200543001	C81230210001	C0F170598001	C81160293001	C8D300169001	C91250187001	C8H140249001	L690481-1	C9D240224001	AR 2008 8-183-06-6	C9D220166001	C9F060171001
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Vinyl Chloride																											
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City Clackamas Boise Cohoes Lackawanna	Barre	Syracuse	Chesapeake	Vinton	Raleigh	<b>Grand Island</b>	Omaha	Wichita	Dodge City	Chandler	Clackamas	Barre	Charlotte	Chester	Tampa	Cohoes	Lackawanna	Avon	Syracuse	St. Paul	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale
Count																														22	
Year 2010 2008 2008 2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	35 2010	2010
REPORTING LIMIT Uth 0.025 0.2 0.2 0.2	0.2	0.2 0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
QUALIFIER U U U U	<b>D</b> :	<b>&gt;</b> =	) <b>)</b>	⊃	J	)	b	⊃	J	כ	⊃	J	コ	)	コ	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	D .

0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.0087	0.11	0.11			0.53			5.3		210	270	0.0048				0.038												0.038	0.038	
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Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita	Clackamas	Boise	Cohoes	Lackawanna	Barre	Syracuse	Archdale	Chesapeake	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Cohoes	Lackawanna	
2010	2010	2010	2010	2010	2010	2010	2009	2008	2010	2008	2008	2009	2008	2008	2009	2008	2009	2009	2010	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5	0.62	2	2.5	10	10	25	100	1000	1200	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
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0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.0064	960.0	0.096			0.48			4.8		190	240
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Avon	Dalle	Syracuse	Charlotte	St. Paul	Chester	Tampa	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita
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0.5	2.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5	0.62	2	2.5	10	10	25	100	1000	1200
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Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita	Langley	Nisku	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	<b>Grand Island</b>	Omaha	Wichita	
2010	2010	2010	2010	2010	2010	2009	2008	2010	2008	2008	2009	2008	2008	2009	2008	2009	2009	2008	2008	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	
0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5	0.62	2	2.5	10	10	25	100	1000	1200	0.01	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
)	<b>&gt;</b> :	<b>&gt;</b>	⊃	<b>&gt;</b>	<b>&gt;</b>	⊃	⊃	⊃	⊃	⊃	⊃	⊃	<b>&gt;</b>	<b>&gt;</b>	⊃	⊃	⊃	⊃	⊃	⊃	<b>5</b>	⊃	⊃	<b>&gt;</b>	⊃	<b>-</b>	⊃	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	⊃	)	⊃	<b>D</b>	⊃	⊃	

		0.000015	0.000015	0.000015	0.000015	0.000015	0.000015	0.000015	0.000015	0.000015	0.000015	0.000015		0.000015	0.000015	0.000015	0.000015	0.000015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00003					0.00045	0.00045
		<del>-</del>	<del></del>	_	<b>-</b>	_	-	<del></del>	<b>-</b>	_	_	٣-	<b>~</b>	<b>~</b>	_	_	_	~	~	-	<b>~</b>	_	<b>-</b>	_	<b>-</b>	_	<b>-</b>	<b>~</b>	_	7					<del></del>	_
	Dodge City Chandler	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Syracuse	Clackamas	Langley	Nisku	Charlotte	St. Paul
9	2008	5008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009 52	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2008	2008	2008	5009	5009
č	2 2	20	20	2	×	8	2	2	20	2	7	2	33 20	2	7	2	7	2	2	2	7	8	8	8	7	7	7	8	7	7	7	2	7	8	ĸ	2
	. t.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.01	0.04	0.05	0.05
=	o	_	<b>-</b>	<b>_</b>	⊃	⊃	⊃	⊃	<b>-</b>	_	_	<b>-</b>	<b>&gt;</b>	<b>-</b>	<b>&gt;</b>	⊃	<b>-</b>	⊃	<b>-</b>	)	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	<b>&gt;</b>			⊃	⊃	⊃	<b>-</b>

			0.000057		0.000057													0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.0000091		0.0000091	0.0000091	0.0000091	0.0000091	0.0000091	0.00017	
			.0		0.													1	1	1	1	1	1	1	1	1	1	1	<b>-</b>	1	1	1 0	1	1	<b>←</b>	
Boise Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	
2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2009	2009	2009	2010	
0.0	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
<b>D D</b>	<b>D</b>	<b>⊃</b> :	<b>-</b> :	<b>-</b>	<b>-</b>	<b>-</b>	_	_	<b>_</b>	<b>D</b>	n	n	n	n	n	n	<b>-</b>	<b>D</b>	<b>-</b>	_	D	_	<b>&gt;</b>	⊃	D	⊃	<b>D</b>	<b>-</b>	<b>&gt;</b>	n	n	n	n	<b>-</b>	J	

0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.000018	0.00083	0.00083					0.000045		0.000045														0.000016	0.000016	0.000016	0.000016	
<b>~</b>	· <del>-</del>	_	~	<b>-</b> -	<b>-</b>	<b>-</b>	<b>~</b>	~	_	7	_	-					_		-														-	<del></del>	<b>~</b>	<b>-</b>	
Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Langley	Boise	Cohoes	Lackawanna	Avon	
2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Π	· ⊃	⊃	D	<b>D</b>	_	D	<b>D</b>	⊃	_	<b></b>	⊃	<b>D</b>	_	<b>&gt;</b>	⊃	⊃	<b>&gt;</b>	<b>&gt;</b>	⊃	⊃	⊃	<b>-</b>	⊃	⊃	⊃	<b>-</b>	<b>-</b>	<b>-</b>	<b>5</b>	⊃	_	⊃	<b>-</b>	<b>-</b>	⊃	⊃	

0.000016	0.000016	0.000016	0.000016	0.000016	0.000016	0.000016		0.000016	0.000016	0.000016	0.000016	0.000016	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000054	0.000033			0.0007	0.0007					0.000051		0.000051	
	_ ,	<b>.</b>	<b>~</b>	_	<b>-</b>	~	~	~	<b>-</b>	_	<b>-</b>	<b>~</b>	<del></del>	<b>-</b>	~	~	_	Υ-	_	_	<b>~</b>	~	_	2			<b>-</b>	_					<b>←</b>		<b>-</b>	
Вагге	Syracuse	Archdale	Chesapeake	Chester	Татра	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Nisku	Nisku	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale
						52																														
2009	8007	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2008	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008
						33																														
0.7	- ·	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>&gt;</b> :	<b>&gt;</b> =	<b>&gt;</b>	⊃	⊃	>	⊃	⊃	⊃	<b>&gt;</b>	)	⊃	⊃	⊃	$\supset$	$\supset$	⊃	⊃	>	$\supset$	⊃	$\supset$	⊃	⊃	⊃	⊃	⊃	⊃	$\supset$	⊃	⊃	⊃	⊃	⊃	⊃	<b>-</b>	⊃

											0.000014	0.000014	0.000014	0.000014	0.000014	0.000014	0.000014	0.000014	0.000014	0.000014		0.000014	0.000014	0.000014	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	0.000086	
											<b>-</b>	_	<b>-</b>	_	_	_	_	_	_	<b>-</b> -	-	-	_	_	τ-	_	<b>~</b>	<b>-</b>	<b>~</b>	_	<b>-</b> -	_	<b>-</b>	-	-	
Tallahassee	Chester	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Langley	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Grand Island	Wichita	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	
2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
<b>D</b> =	ם י	n	n	)	D	コ	n	n	n	)	<b>5</b>	<sub>D</sub>	n	n	n	<b></b>	D	つ	)	D	)	⊃	D.	o o	o o	)	⊃	)	⊃	D	)	D.	⊃	כ	<b>D</b>	

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Dodge City Omaha Raleigh Albuquerque	Nisku St. Paul Charlotte	Boise Cohoes Lackawanna Avon Rarre	barre Syracuse Charlotte Tallahassee Chesapeake	Chester Vinton Raleigh Grand Island Omaha Wichita Dodge City Chandler	Langley Barre Chester Tampa Boise Cohoes Lackawanna Avon Syracuse Archdale Raleigh Grand Island
2009 2009 2009 2009	2008 2009 2009	2008 2008 2008 2008	2008 2008 2008 2008	2008 2008 2008 2008 2008 2008 2008	
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0.000018	0.000018	0.000018	60000.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	60000.0	60000.0	0.0000	0.0000	0.000035		0.000018	0.000018	0.000018		0.0022	0.0027					0.02		0.022							
~ ~	<b>-</b>	τ-	<b>-</b>	<b>-</b>	_	<b>-</b>	-	_	_	-	-	<del></del>	_	2		<b>-</b>	<b>-</b>	<b>-</b>		<b>-</b>	<b>~</b>					10		10							
Grand Island Wichita	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Archdale	Chesapeake	Omaha	Albuquerque	Vinton	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Raleigh	Grand Island	Omaha
2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2009	2009	2009	2008	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008
0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.01	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>_</b>	⊃	⊃	<b>&gt;</b>	<b>&gt;</b>	<b>D</b>	<b>&gt;</b>	⊃	>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	>	)					⊃	⊃	⊃	⊃	<b>-</b>	<b>&gt;</b>	⊃	⊃	⊃	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>5</b>	⊃	⊃	⊃	⊃

			0.027	0.027	0.02	0.02	0.027	0.02	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027			0.14	0.002	0.027
			9	10	10	9	9	10	10	10	9	10	10	9	10	10	10	10	10	10	10	10	10	9	10	9	9	10	10	10			20	<b>ν-</b>	10
 vvicnita Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Omaha	Wichita	Dodge City	Albuquerque	Santa Ana	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Omaha	Albuquerque	Santa Ana	Chandler	Sacramento	Clackamas	Langley	Nisku	Raleigh	Grand Island	Chandler
																22																			
2008 2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2008	2010	2009	2009
																35																			
0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	<del></del>	0.1
o	⊃	_	⊃	<b>&gt;</b>	_	<b>-</b>	_	⊃	⊃	⊃	⊃	⊃	⊃	<b></b>	D	)	⊃	⊃	)	<b>&gt;</b>	<b>&gt;</b>	⊃	>	⊃	⊃	⊃	⊃	⊃	<b>-</b>	⊃	<b></b>	⊃	)	<b>-</b>	

0.027	0.001	0.0026 0.0026	0.0062	0.0062	0.0062	0.0062	0.0062	0.0062	0.0062			0.031	0.00026	0.0005			0.0062	0.0062			0.0026	0.00062		0.0062		0.0062	
10	10	9 4	<b>6</b> 6	0	ę ;	5 5	<u></u> 6	6	10			50	<b>-</b>	<b>~</b>			9	9			10	<del>,</del>		10		10	
Dodge City Cohoes Lackawanna Avon Svracuse	Charlotte Chesapeake Clackamas	Avon Syracuse	Archdale Chesapeake	Wichita	Santa Ana	Syracuse St Paul	Omaha	Santa Ana	Sacramento	Langley	Nisku	Raleigh	Grand Island	Charlotte	Boise	Omaha	Barre	Albuquerque	Chandler	Archdale	Barre	St. Paul	Raleigh	Cohoes	Tallahassee	Chester	Chester
2010 2008 2008 2008 2008	2008 2008 2008	2009	2009	2009	2009	2010	2010	2010	2010	2008		35 2010 55	2009	2009	2008	2008	2009	2010	2008	2008	2008	2009	2008	2009	2008	2009	2008
0.7	000	2 2	2 2	7	0 0	7 0	1 7	2	2	2.0	5.0	10	20	0.2	2	2	2	2	2	2	2	0.2	2	2	2	2	7

0.0062	0.0062	0.0026	0.0062	0.0062	0.0062	0.0062		0.0062	0.0062	0.0062	0.0062	0.0062	0.0062		0.0062	0.0049				0.04												0.04	0.04
10	10	10	10	10	10	10		10	10	10	10	10	10		10	2				40												40	40
Clackamas Dodge City Dodge City	Omaha Grand Island	Lackawanna	Albuquerque	Raleigh	Boise	Chandler	Vinton	Boise	Clackamas	Chandler	Chesapeake	Dodge City	Archdale	Wichita	Tampa	Clackamas	Boise	Cohoes	Lackawanna	Barre	Syracuse	Archdale	Chesapeake	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Cohoes	Lackawanna
2009 2009 2008	2009	2009	2009	2009	2009	2010	2008	2010	2010	2009	2010	2010	2010	2008	2009	2010	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009
0 0 0	0 0	2 1	2	2	2	2	0.4	2	7	2	2	2	2	2	2	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
																<b>D</b>	_	_	_	⊃	)	⊃	<b>D</b>	D	⊃	⊃	<b>-</b>	⊃	<b>D</b>	<b>_</b>	_	⊃	⊃

0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0081	0.099	0.099			0.49			4.9		200	250
40	40	40	4	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	<b>.</b>	100	100			200			2000		200000	250000
Avon	Barre	Syracuse	Charlotte	St. Paul	Chester	Татра	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita
																55																				
2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	35 2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2010	2008	2008	2009	2008	2008	2009	2008	2009	2009
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5	0.62	2	2.5	10	10	25	100	1000	1200
)	<b>⊃</b>	<b>-</b>	<b>D</b>	<b>D</b>	_	_	<b>-</b>	<b>O</b>	n	<b>D</b>	D	)	⊃	D	⊃	D	<b>-</b>	D	)	<b>&gt;</b>	<sub>D</sub>	)	<b>-</b>	n	n	<b>_</b>	⊃	<b>-</b>	<b>-</b>	<b>-</b>	ō	<b>-</b>	⊃	⊃	<b>-</b>	_

	7000	0.0021	0.0023										0.0013	0.0021	0.0021	0.0013	0.0021	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
	ç	2	10										10	10	9	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10	10	10	10
Boise Cohoes	Lackawanna	Syracuse	Charlotte	Archdale	Chesapeake	Raleigh	Grand Island	Omaha	Dodge City	Clackamas	Langley	Nisku	Cohoes	Lackawanna	Avon	Barre	Syracuse	Chesapeake	Chester	Raleigh	Omaha	Wichita	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Omaha	Albuquerque	Santa Ana	Chandler
2008 2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	35 2010 55	2010	2010	2010
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
<b></b>	<b>)</b> =	) <b>)</b>	D	_	<b>D</b>	<b>-</b>	<b>-</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>_</b>	n	⊃	n	Ω	D	)	n	D	n	<b>-</b>	_	_	<b>-</b>	)	<b>&gt;</b>	<b>5</b>	)	<b>-</b>	<b>-</b>	<b>-</b>	<b>D</b>	<b>)</b>	⊃

0.0013 0.0065 0.00021	0.00024	0.0013		0.0013	0.0013		0.0013	0.0013		0.0013	0.00013	0.032	0.0054				0.043												0.043	0.043	0.043
10	~	10		10	9		10	10		10	<b>~</b>	250	2				40												40	40	40
Sacramento Raleigh Grand Island Vinton	Charlotte	Boise	Tallahassee	Chester Archdale	Dodge City	Wichita	Archdale	Tampa	Chandler	Clackamas	St. Paul	Chesapeake	Clackamas	Boise	Cohoes	Lackawanna	Barre	Syracuse	Archdale	Chesapeake	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Cohoes	Lackawanna	Avon
2010 2010 2009 2008	2009	2009	2008	2008 2009	2010	2008	2010	2009	2008	2010	2009	2010	2010	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009
0.05 0.25 0.5 0.05	0.05	0.05	0.05	0.05 0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1.2	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
222													⊃	⊃	_	⊃	⊃	<b>D</b>	⊃	⊃	)	⊃	⊃	<b>&gt;</b>	⊃	⊃	⊃	)	<b>&gt;</b>	⊃	⊃

0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.0091	0.11	0.11			0.54			5.4		220	270	0.0026
40	40	4	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	_	100	100			200			2000		200000	250000	S
Barre	Syracuse	Charlotte	St. Paul	Chester	Tampa	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita	Clackamas
															22																					
2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	35 2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2010	2008	2008	2009	2008	2008	2009	2008	2009	2009	2010
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5	0.62	2	2.5	10	9	25	100	1000	1200	0.025
)	⊃	⊃	⊃	⊃	⊃	⊃	⊃	_	<b>D</b>	_	<b>&gt;</b>	⊃	<b>&gt;</b>	⊃	<b>D</b>	<b>-</b>	<b>&gt;</b>	<b>-</b>	⊃	<b>-</b>	⊃	⊃	⊃	⊃	⊃	⊃	n	⊃	⊃	b	⊃	<b>5</b>	_	<b>&gt;</b>	_	⊃

200	0.00						0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	
Ç	5						40	40	40	40	40	4	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
Boise Cohoes Lackawanna	Syracuse Archdale	Chesapeake Vinton	Kaleign Grand Island	Omaha Wichita	Dodge City	Chandler	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	St. Paul	Chester	Tampa	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	
2008 2008 2008	2008 2008 2008	2008 2008	2008	2008 2008	2008	2008	2003	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	35 2010 55	2010	2010	2010	
0.2 0.0 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.00	0 0 0 0 7 0 0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
בכככ	)	<b>.</b>	o	<b>_</b> _	⊃	<b>&gt;</b> =	) <b>–</b>	_	J	כ	)	)	)	⊃	)	⊃	⊃	<b>)</b>	<b>ɔ</b> :	<b>&gt;</b> :	o :	<b>)</b> :	<b>)</b>	<b>.</b>	<b>)</b>	⊃	⊃	<b>&gt;</b>	

0.021 0.021 0.021 0.021 0.053 0.053 0.053	110 130 0.005 0.04	0.00 0.00 0.00 0.00
40 40 40 40 100 100 5000	200000 250000 5 5 40	04 4 4 0 0 4 4
Omaha Dodge City Albuquerque Chandler Sacramento Grand Island Charlotte Santa Ana Chester Avon Chesapeake Tallahassee Nisku Boise	Archdale Wichita Clackamas Boise Cohoes Lackawanna Barre Syracuse Archdale Chesapeake Vinton Raleigh Grand Island Omaha Wichita Dodge City Chandler	Cohoes Lackawanna Avon Barre
2010 2010 2010 2010 2010 2008 2008 2008	2009 2009 2010 2008 2008 2008 2008 2008 2008 2008	2009 2009 2009 2009
0.2 0.2 0.2 0.2 0.5 0.62 2.5 100	0.02 0.02 0.02 0.02 0.02 0.03 0.03 0.03	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2222222222		<b></b>

0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.0078	0.1	0.1			0.5			5		200	250		
40	4	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	<b>-</b>	100	100			200			2000		200000	250000		
Syracuse	Charlotte	St. Paul	Chester	Tampa	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita	Boise	Lackawanna
_	_	_					_	_			_	_	_	22	_	_	_			_		_	_	~~	_			_	•		_		_	_		<b>~</b>
2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010		35 2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2008	2010	2008	2008	2008	2008	2008	2006	2008	2006	2009	2008	2008
0.2	0.2	0.2	0.5	0.5	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.37	0.5	0.5	0.62	7	2.5	9	9	25	100	1000	1200	0.05	0.05
<b>&gt;</b>	>	$\supset$	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	$\supset$	⊃	$\supset$	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	⊃	$\supset$	$\supset$	⊃	⊃	$\supset$	⊃	⊃	$\supset$	$\supset$	$\supset$

		0.012				0.011	0.011	0.00084	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.028		0.0011		0.0057	0.0057	0.0057		0.0057		0.0057		0.011	0.0057	0.00057		0.011	0.0057		0.0057
		10				10	10	-	10	10	9	10	10	10	10	10	50		_		10	10	10		9		10		10	10	<b>~</b>		10	10		10
Avon	Syracuse	Charlotte	Chesapeake	Omaha	Clackamas	Avon	Syracuse	Charlotte	Chesapeake	Wichita	Santa Ana	Syracuse	St. Paul	Omaha	Albuquerque	Santa Ana	Raleigh	Nisku	Grand Island	Chester	Cohoes	Raleigh	Chester	Archdale	Barre	Vinton	Omaha	Chandler	Barre	Clackamas	St. Paul	Tallahassee	Lackawanna	Archdale	Raleigh	Dodge City
2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	35 2010 55	2008	2009	2008	2009	2009	2009	2008	2009	2008	2009	2008	2008	2009	2009	2008	2009	2009	2008	2009
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.25	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.005	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05

0.0057	0.0057	0.0057	0.0057		0.0057	0.0057	0.0057		0.0057	0.0057				0.0057	0.0057																					
10	10	10	10		10	10	9		9	10				9	10	<b>~</b>	<b>~</b>	Ţ	<b>~</b>	<b>-</b>																
Albuquerque	Chandler	Boise	Boise	Grand Island	Sacramento	Clackamas	Archdale	Dodge City	Chandler	Chesapeake	Langley	Cohoes	Wichita	Tampa	Dodge City	Archdale	Charlotte	Boise	Santa Ana	Barre	Boise	Cohoes	Lackawanna	Avon	Syracuse	Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	<b>Grand Island</b>	Omaha	Wichita	Dodge City	Chandler
																																			l i	22
2009	2010	2009	2010	2008	2010	2010	2010	2008	2009	2010	2008	2008	2008	2009	2010	2009	2008	2009	2010	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008		35 2008

Clackamas Cohoes Lackawanna Avon Syracuse St. Paul Chesapeake Raleigh Grand Island Omaha Wichita Dodge City Albuquerque Santa Ana Chandler Clackamas Barre Charlotte Charlotte Charlotte Charlotte Charlotte	St. Paul Archdale Chesapeake Raleigh Omaha Dodge City Albuquerque Chandler Sacramento Clackamas Langley Nisku Langley Nisku Charlotte
2009 2009 2009 2009 2009 2009 2009 2009	2010 2010 2010 2010 2010 2008 2008 2008
	0.0 0.05

0.00091

0.00091	0.000043	0.000043											0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018		0.000018	0.000018	0.000018	0.000018	0.000018
<b>~</b>	-	-											<b>~</b>	<b>-</b>	_	<b>-</b>	<b>-</b>	τ-	_	_	~	_	_	-	_	-	_	_	<b>-</b>
St. Paul Boise Cohoes Lackawanna	Avori Barre Syractise	Charlotte	Archdale Tallahassee	Chesapeake	Chester	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake			Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas
2009 2008 2008 2008	2008 2008 2008	2008	2008 2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2009	2009	2009
0.05		. 0 (	0.0 1.1	0.1	0. C	.0.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2222	o	) <b>)</b> :	<b>&gt;</b> >	n	<b>&gt;</b> =	) <b>)</b>	D	⊃	o o	⊃	_	D	⊃	⊃	⊃	<b>&gt;</b>	<b></b>	<b>-</b>	<b>)</b>	<b>&gt;</b>	<b>&gt;</b>	)	)	<b></b>	<b>&gt;</b>	)	<b>D</b>	⊃	⊃

0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000036			0.00061	0.00061					0.000038		0.000038													0.000012	0.000012	
_	-	τ-	<b>-</b>	<b>~</b>	<b>~</b>	<b>~</b>	<del>-</del>	~	τ-	<b>-</b>	7			~	<b>~</b>					~		•													_	_	
Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Langley	Nisku	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	
2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2008	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.01	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
<b>-</b>	D	<b>-</b>	<b>D</b>	)	<b>&gt;</b>	⊃	)	D	<b>-</b>	n	o.	<b>-</b>	<b>-</b>	⊃	⊃	<b>D</b>	n	⊃	_	⊃	⊃	)	n	⊃	<b>-</b>	<b>-</b>	<b>-</b>	⊃	<b>&gt;</b>	⊃	D	n	D	_	⊃	<b>&gt;</b>	

0.000012	0.000012	0.000012	0.000012	0.000012	0.000012	0.000012	0.000012	0.000012		0.000012	0.000012	0.000012	0.000012	0.000012	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000017	0.000024			0.00038	0.00038					0.000043	
<b>.</b>	τ-	<b>~</b>	_	<b>~</b>	_	_	_	_	_	_	_	-	<b>-</b> -	_	_	_	<b>,</b> -	<b>~</b>	_	<b>-</b>	Υ-	_	<b>-</b>	<b>~</b>	<b>τ</b> -	7			<b>~</b>	<b>—</b>					Ψ.	
Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Langley	Nisku	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse
2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2008	2009	2009	2008	2008	2008	2008	2008	2008
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.01	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1
<b>ɔ</b> :	<b>-</b>	<b>-</b>	)	כ	כ	D.	)	<sub>&gt;</sub>	D	)	ם	)	<b>-</b>	⊃	<b>_</b>	⊃	)	D	)	⊃	⊃	D	コ	<b>-</b>	⊃	)	⊃	)	)	<b>&gt;</b>	⊃	⊃	<b>-</b>	<b>-</b>	コ	コ

0.000043	0.0000077 0.00000077 0.00000077 0.00000077 0.00000077 0.00000077 0.0000007 0.0000000	0.0000077 0.0000077 0.0000077 0.000003 0.000063 0.000063 0.000063 0.000063 0.000063 0.000063
<b>~</b> **		
Charlotte Archdale Tallahassee Chesapeake Chester Vinton Raleigh Grand Island Omaha Wichita Dodge City Chandler	Boise Cohoes Lackawanna Avon Barre Syracuse Archdale Chesapeake Chester Tampa Raleigh	Omaha  Wichita  Wichita  Albuquerque  Chandler  Clackamas  Boise  Syracuse  St. Paul  Archdale  Chesapeake  Raleigh  Omaha
2008 2008 2008 2008 2008 2008 2008 2008	2009 2009 2009 2009 2009 2009 33 2009 33 2009 52	2009 2009 2009 2009 2010 2010 2010 2010
0000000000000	000000000000	2000000000000
2222222222		

0.000063 0.000063 0.000063 0.000063	0.017 0.017 0.013 0.013 0.013 0.013	0.013 0.0013 0.0014 0.0013	0.013 0.017 0.013 0.013
	222222	<u> </u>	0 000 0
Dodge City Albuquerque Chandler Clackamas Dodge City Boise Lackawanna Avon Syracuse Chesapeake	Omaha Lackawanna Avon Syracuse Raleigh Omaha Wichita Syracuse	Omaha Santa Ana Charlotte St. Paul Grand Island Langley Nisku Vinton Clackamas Chandler	Cohoes Raleigh Albuquerque Barre Santa Ana Archdale Clackamas
2010 2010 2010 2009 2008 2008 2008 2008	2009 2009 2009 2009 2010 2010	2010 2010 2009 2009 2008 2008 2008	2009 2008 2009 2009 2009 2010
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.03 0.05 0.05 0.05 0.5 0.03 0.03	0.03 0.03 0.03 0.03 0.03

0.013	0.013	0.013		0.013		0.013	21	0.024	0.013	0.013	0.013	0.013	0.063	0.013	0.013		0.013		0.013	0.013	0.013	0.013	0.000038	0.000038					0.00016		0.00055					
10	10	10		10		10		10	10	10	10	10	20	10	10		10		10	10	10	10	_	_					10		10					
Chester	Sacramento	Clackamas	Grand Island	Boise	5 Tallahassee	Albuquerque	Cohoes	Charlotte	Chandler	Archdale	Boise	Archdale	Raleigh	Chesapeake	Barre	Dodge City	Chesapeake	Wichita	Dodge City	Chandler	Tampa	Dodge City	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Vinton
2009	2010	2009	2008		35 2008 55	2010	2008	2008	2010	2009	2010	2010	2010	2010	2009	2008	2009	2008	2009	2009	2009	2010	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.15	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.0002	0.0002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002

							0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	0.00038	
							10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	9	10	9	10	10	10	0	0	9	9	10	10	10	10	
Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Omaha	Wichita	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Sacramento	
																				22																	
2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	35 2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	
																				(1)																	
0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	
⊃	_	$\supset$	⊃	$\supset$	$\supset$	⊃	$\supset$	⊃	$\supset$	$\supset$	$\supset$	$\supset$	⊃	$\supset$	_	<b>-</b>	$\supset$	_	<b>&gt;</b>	⊃	$\supset$	<b></b>	⊃	<b>-</b>	⊃	<b>&gt;</b> 1	<b>-</b>	<b>-</b> :	<b>&gt;</b>	<b>&gt;</b>	$\supset$	$\supset$	$\supset$	<b>-</b>	$\supset$	<b>-</b>	

0.00038	0.011									0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.0073	0.11	
10	<del>-</del>									40	40	40	40	40	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	_	100	
Clackamas Langley Nisku	Grand Island Boise	Cohoes Lackawanna	Syracuse	Archdale Chesapeake	Vinton	Raleigh	Omaha	Wichita	Clackamas	Cohoes	Lackawanna	Avon	Barre	Syracuse	St. Paul	Chester	Tampa	Omaha	Dodge City	Santa Ana	Chandler	Boise	Syracuse	St. Paul	Archdale	Raleigh	Omaha	Albuquerque	Sacramento	Grand Island	Charlotte	
2010 2008 2008	2009	2008 2008	2008	2008 2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	
0.002 0.01 0.01	0.033	0 0 7 7 7	0.2	o o	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	
<b></b>	<b></b> :	<b>)</b>	<b>ɔ</b> :	<b>&gt;</b>	<b>D</b>	D	<b>)</b>	<b>)</b>	⊃	⊃	⊃	_	⊃	<b>-</b>	⊃	⊃	<b>-</b>	<b>-</b>	<b>-</b>	⊃	⊃	⊃	⊃	⊃	<b>&gt;</b>	<b>-</b>	⊃	<b>-</b>	<b>-</b>	_	<b>5</b>	

0.11		0.54			5.4		220	0.0054	0.043	0.043	0.043		0.043	0.043	0.043		0.043		0.043	270			0.0009	0.0009					0.000064		0.000064					
100		200			2000		200000	2	40	40	40		40	4	40		40		40	250000			<b>~</b>	<b>~</b>					<b>~</b>		-					
Santa Ana Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Clackamas	Raleigh	Chesapeake	Barre	Grand Island	Chandler	Charlotte	Dodge City	Chandler	Albuquerque	Dodge City	Clackamas	Wichita	Langley	Nisku	Charlotte	St. Paul	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	
2010 2008	2008	2009	2008	2008	2009	2008	2009	2010	2009	35 2010 55	2008	2008	2010	2009	2010	2008	2009	2008	2009	2009	2008	2008	2009	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	
0.5	7 5	2.5	10	9	25	100	1000	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1200	0.01	0.04	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
<b>5</b> 5 :	<b>&gt;</b> :	<b>-</b> :	<b>-</b>	⊃	<b>-</b>	<b>-</b>	⊃														<b>&gt;</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>&gt;</b>	)	)	)	>	<b>&gt;</b>	)	)	⊃	⊃	<b>)</b>	

							0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018	0.000018		0.000018	0.000018	0.000018	0.000018	0.000018	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000084	0.000036
							~	۲-	τ	<b>~</b>	<b>~</b>	_	<del>-</del>	<b>~</b>	_	<b>-</b>	_	_	<b>-</b> -	-	-	_	_	_	~	_	_	_	_	_	_	_	_	<b>-</b>	7
Vinton	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City
2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009
0.0		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
<b>D</b> :	o	)	_	⊃	D	<b>&gt;</b>	)	n	⊃	<b>D</b>	<b>-</b>	⊃	<b>-</b>	<b>D</b>	<b>-</b>	⊃	⊃	n	<b>⊃</b>	D	⊃	⊃	⊃	<b>-</b>	n	<b>⊃</b>	⊃	<b>-</b>	<b>-</b>	⊃	<b>&gt;</b>	⊃	o o	⊃	D.

0.0094 0.0094 0.000083 0.000083	0.00019 0.00019 0.00019 0.00019 0.00019 0.00019 0.00019 0.00019 0.00019 0.00019
<b>← ← ←</b>	
Langley Nisku Boise Cohoes Avon Syracuse Archdale Dodge City Charlotte St. Paul Lackawanna Barre Charlotte Tallahassee Chesapeake Chester Vinton Raleigh Grand Island Omaha Wichita Charkamas	Boise Cohoes Lackawanna Avon Barre Syracuse Archdale Chesapeake Chester Tampa Raleigh Grand Island Omaha
2008 2008 2008 2008 2008 2008 2008 2008	2009 2009 2009 2009 2009 2009 2009 2009
0.04 0.04 0.11 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

0.00019	0.00019	0.000066	0.000066	0.000066	0.000066	0.000066	0.000066	0.000066	0.000066	0.000066	0.000066	0.00038	0.000066	0		0	0				0		0	0	0						0	0			
	_	<b>~</b>	<b>-</b>	<b>-</b>	<b>-</b>	_	<b>-</b> -	-	_	_	<b>,</b>	7	<b>-</b>	_		<b>~</b>	_	_	-	_	-		<b>-</b>	<b>~</b>	<b>-</b>			<b>-</b>			<b>~</b>	<del>-</del>			
Albuquerque Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Raleigh	Clackamas	Dodge City	Tampa	Chandler	Lackawanna	Omaha	Wichita	Albuquerque	Vinton	Clackamas	Archdale	Santa Ana	Tallahassee	Wichita	Syracuse	Syracuse	Chandler	Syracuse	Dodge City	Lackawanna	Omaha	Clackamas
2009	2009	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2010	2010	2008	2009	2010	2009	2009	2009	2010	2008	2009	2010	2010	2008	2008	2009	2008	2008	2010	2010	2008	2008	2008
0.5 0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	_	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0	0.1	0.1	0.1	0.1

C	>	0			0		0		0					0	0												0	0	0			0	0.0047	0.0047	
•	-	_			-	<b>-</b>	_	_	_	_		_	_	_	_		_	-	<b>-</b>		-		<b>-</b>	_		<del>-</del>	<b>-</b>	<b>-</b>	_		_	<b>~</b>	<b>~</b>	<b>~</b>	
Langley	Grand Island	Albuquerque	Archdale	Chester	Barre	Archdale	Sacramento	St. Paul	St. Paul	Barre	Raleigh	Cohoes	Raleigh	Raleigh	Chester	Avon	Grand Island	Dodge City	Chandler	Cohoes	Boise	Nisku	Charlotte	Chesapeake	Chesapeake	Chesapeake	Charlotte	Chesapeake	Santa Ana	Boise	Avon	Boise	Charlotte	St. Paul	Boise
2008	2008	2009	2008	2008	2009	2009	2010	2009	2010	2008	35 2008 56	2009	2009	2010	2009	2008	2009	2009	2009	2008	2009	2008	2008	2010	2008	2010	2009	2009	2009	2008	2009	2010	2009	2009	2008
1.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5

	0.000071	10000	0.000071												0.000094	0.000094	0.000094	0.000094	0.000094	0.000094	0.000094	0.000094	0.000094	0.000094	0.000094		0.000094	0.000094	0.000094	0.000094	0.000094	0.000071	0.000071
	~	•	<b>,</b>												<b>~</b>	<b>~</b>	~	<b>.</b>	<b>~</b>	<u>_</u>	₹-	_	_	-	<del>-</del>	<b>-</b>	_	~	<del>,-</del>	_	_	_	_
Cohoes Lackawanna	Barre	Syracuse	Cnarlotte Archdale	Tallahassee	Chesapeake	Chester	Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Archdale	Chesapeake	Chester	Tampa	Raleigh	Grand Island	Omaha	Wichita	Albuquerque	Chandler	Clackamas	Boise	Syracuse
2008 2008	2008	2008	2008 2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	33 2009 52	2009	2009	2009	2009	2009	2010	2010
0.5 5.5 5.	0.5	0.5 r	<b>ဝ</b> လ လ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
<b>&gt;</b> > =	o	<b>)</b> =	<b>)</b>	<b>.</b> D	⊃	<b>D</b>	)	o O	n	o D	)	D	D	)	n	)	⊃	n	n	コ	)	D	つ	<b>-</b>	)	)	コ	)	)	)	コ	)	<b>D</b>

1,00000	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.00019								0.029		0.025									0.03	0.03	0.029	0.029	0.03	0.029	0.0021	0.003	0.03	
•		_	<b>-</b>	_	<b>-</b>	_	<b>-</b>	<b>-</b>	7								10		10									10	6	10	10	10	10	_	<b>~</b>	10	
Ct Dail	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Clackamas	Dodge City	Nisku	Langley	Vinton	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	Archdale	Tallahassee	Chesapeake	Chester	Grand Island	Omaha	Wichita	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	St. Paul	Archdale	
2010	2010	2010	2010	2010	2010	2010	2010	2010	2009	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	
אַ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	<b>←</b>	5.0	20	0.005	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
=	) <b>)</b>	D	n	<b>-</b>	<b>&gt;</b>	<b>D</b>	<b>&gt;</b>	<b>D</b>	<b>-</b>	⊃	)	<b>-</b>	⊃	⊃	⊃	⊃	⊃	n	⊃	⊃	<b>D</b>	D	<b>5</b>	⊃	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>_</b>	⊃	_	⊃	⊃	<b>-</b>	⊃	

0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03		0.15		0.0029	0.03		0.03		0.03	0.03						0.0054		0.0059
<b>6</b> 5	9 2	10	10	10	10	10	10	10	10	10	19	9	10	10	9	10	10		50		<b>-</b>	10		9		5	9						10		10
Chesapeake Tampa	Raleigh	Omaha	Wichita	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Syracuse	St. Paul	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Sacramento	Clackamas	Langley	Raleigh	Nisku	Grand Island	Archdale	Dodge City	Chester	Chandler	Chesapeake	Boise	Raleigh	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte
2009	2009	2009	2009	2009	2009	2009	2009	35 2009 55	2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2010	2008	2009	2010	2008	2009	2008	2010	2010	2008	2008	2008	2008	2008	2008	2008	2008
0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.25	0.2	0.5	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
<b>&gt;</b> =	· –	⊃	<b>&gt;</b>	<sub>D</sub>	⊃	⊃	<b>&gt;</b>	<b>&gt;</b>	<b>-</b>	<b>&gt;</b>	<b>-</b>	_	⊃	⊃	⊃	<b>-</b>	⊃	_	⊃	o o	⊃								o	<b>-</b>	)	)	⊃	)	⊃

										0.0068	0.0068	0.0054	0.0054	0.0068	0.0054	0.00058	0.00068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068
										10	10	10	10	10	10	<del></del>	_	10	9	10	10	9	10	10	9	9	9	10	10	10	9	10	10	10	9
-	Archdale	Chesapeake	Chester	Raleigh	Grand Island	Omaha Wichita	Dodge City	Chandler	Clackamas	Boise	Cohoes	Lackawanna	Avon	Barre	Syracuse	Charlotte	St. Paul	Archdale	Chesapeake	Chester	Tampa	Raleigh	Omaha	Wichita	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Omaha
	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	5009	2009	2009	35 2009 55	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010
	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	<b>&gt;</b> =	) )	)	)	<b>&gt;</b> :	<b>)</b> =	· ⊃	<b>-</b>	n	D	)	J	)	⊃	)	⊃	)	)	)	)	)	⊃	)	)	<b>)</b>	)	⊃	⊃	)	)	)	)	כ	)	<b>-</b>

0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.034			0.00054		0.0041												0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033
10	10	10	10	10	10	20			_		5												40	4	40	40	4	40	40	40	40	40	40	40	40	40
Dodge City	Albuquerque	Santa Ana	Chandler	Sacramento	Clackamas	Raleigh	Langley	Nisku	Grand Island	Vinton	Clackamas	Boise	Cohoes	Lackawanna	Syracuse	Chesapeake	Vinton	Raleigh	Grand Island	Dodge City	Chandler	Clackamas	Вагте	Charlotte	Tampa	Lackawanna	St. Paul	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Syracuse	St. Paul
2010	2010	2010	2010	2010	2010	2010	2008	2008	2009	2008	2010	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010
0.05	0.05	0.05	0.05	0.05	0.05	0.25	0.5	0.5	0.5	0.005	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
D	)	⊃	n	⊃	<b>D</b>	)	)	<b>-</b>	D.		D	⊃	)	<b>n</b>	o.	n n	_	)	⊃	⊃	n	⊃	⊃	<b>_</b>	<b>_</b>	D	⊃	⊃	)	⊃	)	_	D.	<b>D</b>	<b>_</b>	⊃

0.033	0.033	0.033	0.033	0.0057	0.082	0.41	4.1		160	210		0.033		0.082	0.033		0.033	0.033	0.033	0.033	0.033	0.033	0.099			0.33			0.004				0.032			
40	40	40	40	_	100	200	2000		200000	250000		40		100	40		40	40	40	40	40	40	120			400			2				40			
Archdale	Kaleigh	Chandler	Sacramento	Grand Island	Santa Ana	Chesapeake	Boise	Langley	Archdale	Wichita	Nisku	Barre	Archdale	Charlotte	Avon	Wichita	Boise	Albuquerque	Chester	Cohoes	Omaha	Syracuse	Chesapeake	Chester	Omaha	Dodge City	Avon	Tallahassee	Clackamas	Boise	Cohoes	Lackawanna	Barre	Syracuse	Archdale	Chesapeake
2010	2010	2010	2010	2009	2010	2009	2009	2008	2009	2009	2008	2008	35 2008 55	2008	2009	2008	2010	2010	2009	2009	2010	2009	2010	2008	2008	2010	2008	2008	2010	2008	2008	2008	2008	2008	2008	2008
0.2	0.2	0.2	0.2	0.21	0.5	2.5	25	100	1000	1200	0.1	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	9.0	0.62	0.5	2	7	10	0.025	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<b>D</b> :	<b>-</b>	<b>-</b>	)	כ	コ	D	n	⊃	_	⊃																			)	コ	⊃	⊃	<b>)</b>	⊃	⊃	<b>&gt;</b>

		8						0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.0088	0.08	0.08
								40	4	40	40	40	40	40	40	4	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	<b>-</b>	100	100
Vinton	Raleigh	Grand Island	Omaha	Wichita	Dodge City	Chandler	Clackamas	Barre	Charlotte	Chester	Tampa	Cohoes	Lackawanna	Avon	Syracuse	St. Paul	Raleigh	Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Albuquerque	Chandler	Sacramento	Grand Island	Charlotte	Santa Ana
2008	2008	2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	35 2010 55	2010	2010	2010	2010	2010	2010	2010	2009	2008	2010
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.21	0.5	0.5
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2008	2008 2008 2008	2009 2008	2009 2009	2010	2009 2008	2008	2008	2008	2008	2008	2008 2008	2008	2008	2008	2008	2008	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009			
0.62 2 2	5 0 0 5	100	1200 1200 0.2	0.025	0.18 0.2	0.2	0.5 0.0	0.2	0.2	0.5	0.5	0.2	0.2	7.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
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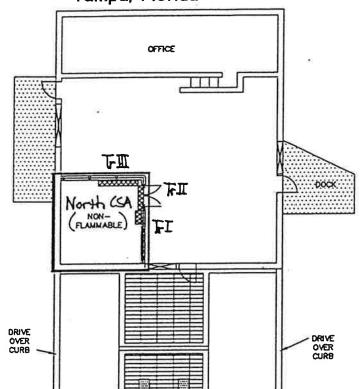
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40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	100	100			200			2000		200000	250000
Omaha	Dodge City	Albuquerque	Santa Ana	Chandler	Clackamas	Boise	Syracuse	St. Paul	Archdale	Chesapeake	Raleigh	Omaha	Dodge City	Albuquerque	Chandler	Sacramento	Charlotte	Santa Ana	Chester	Avon	Chesapeake	Tallahassee	Nisku	Boise	Langley	Archdale	Wichita
2009	2009	2009	2009	2009	2009	2010	35 2010 55	2010	2010	2010	2010	2010	2010	2010	2010	2010	2008	2010	2008	2008	2009	2008	2008	2009	2008	2009	2009
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.62	7	2.5	10	10	25	100	1000	1200
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# Appendix C Containment Calculations

# Containment Trench Location Map

Safety-Kleen Corp. Facility Tampa, Florida

Safety Kleen Tampa Renewal Containment Valumes for CSAs 1311215.19 RWFox 2/20/97 p 1 of 5 / W. Snyder 4/25/01





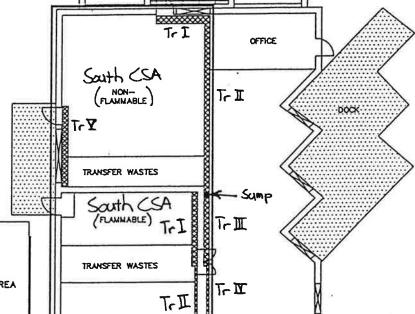
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**LEGEND** DUMPSTER GRATED AREA HAZARDOUS WASTE CONTAINER STORAGE AREA ROLL-UP DOOR

TRENCH .....

NOTE:

- 1) TRANSFER WASTE HOLDING AREAS MAY EXPAND DEPENDING ON THE AMOUNT OF TRANSFER WASTES ARRIVING AT THE **FACILITY**
- 2) TRANSFER WASTE VOLUMES ARE INCLUDED IN CALCULATING TOTAL ACTUAL STORAGE VOLUME FOR PURPOSE OF COMPARING WITH PERMITTED VOLUMES





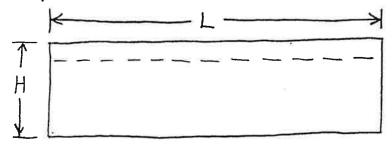
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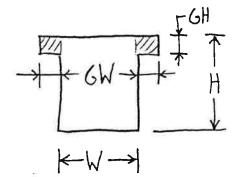
ERM-South, Inc.

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Environmen	ntal	Resources	Managemen	nt
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Project Satety Keen Tampa Reneval W.O. No. 131) 25. A Sheet 2 of 5
Subject Containment Volumes for By RNFax Date 2/20/97
Container Storage Areas (SAs) Chkd by Date

Key to Location Map for Trench Layout





# Typical Trench Configuration

# Trenches in North CSA:

Trench	~	<del>amosta</del>	Dimension	(F)	
	L	Н	W	6H	GW
I	4.08	1.88	1.45	6.083	0.13
I	7.69	1.94	1.70	0.083	0.13
皿	12-	1.92	1.41	0.083	0.13

Total Volume = 520, galbus

ERM-South, Inc.

Project Safety Kleen Tampa Renewal W.O. No. 1311215.19 Sheet 3 of 5

Chkd by

# Trenches in South CSA (Non-Flammable):

Tranch		. I	Dimension	) (t+)			
	L	Н	W	GH	GW		
I	14.9	2(2.0+2.29)	1.9	0.13	0.13		
I	57.7	支(229+2.86)	1.9	0.13	0.13		
Ш	22.6	支(2%+ 2.0)	1.9	0.13	0.13		
N	M.1	玄(2.0+1.48)	0.7	0.13	0.13		
Y	18-1	2.0	2.1	0.13	0.13		

Volume = [LxHxW+2(LxGHxGV)] 7.48

$$V_r = 453 \text{gal}$$

Total Volume = 4122 gallons

### ERM ERM-South, Inc.

#### **Environmental Resources Management**

Project: SK Tampa

W.O No.: 1311330.19 Page 4 of 5

Subject: Containment Calculations

By: VEH

Date: 4/27/93

Chkd by:

Date:4/27/43

#### Containment Capacity

Reference: ERM Field Measurements on 4/27/93

0xay = proportary

Flammable Storage Area

Containment (north portion of trench) Volume =  $L \times W \times H$  minus triangular volume of sloped portion

(all dimensions in feet) (all volumes in gallons)

Ln := 21.15

 $W_n := 1.71$ 

Hn := 2.35

CF := 7.48 gallons per cubic feet

 $Vn := Ln \cdot Wn \cdot Hn \cdot CF$ 

 $V_n = 635.735$  (+)

Volume of triangular sloped area at bottom of the north portion of the trench:

Volume = (0.5) Lt\*Wt\*Ht

Lt := 21.15

Wt := 1.71

Ht := 0.44

 $Vt := 0.5 \cdot Lt \cdot Wt \cdot Ht \cdot CF$ 

Vt = 59.516 (-)

Trond I

Containment volume of south portion of the trench (slope from left to right of this segment is too small to measure):

Vs = Ls\*Ws\*Hs

Ls := 18.46

 $W_s := 1.02$ 

Hs := 0.47

Vs := Ls·Ws·Hs·CF

 $V_S = 66.196 (+)$ 

Containment volume of the sump:

Vsump = Lsump\*Wsump\*Hsump

Lsump := 1.48

Wsump := 1.52

Hsump := 1.0

Vsump: - Lsump-Wsump-Hsump-CF

 $V_{sump} = 16.827$  (+)

Containment volume of flammable storage area (fsa) = Vn-Vt+Vs+Vsump

Cfsa := Vn - Vt + Vs + Vsump

Cfsa = 659.242 gallons

Containment volume of 10-inch fire suppression system drainage pipe Volume = circular area of pipe times the length

R := 0.42 Lpipe := 103.1

Vpipe :=  $\pi \cdot \mathbb{R}^2 \cdot \text{Lpipe CF}$ 

Vpipe = 427.375 (+)

Containment volume of tank farm (tf):

Volume = L\*W\*H minus volume of reinforced concrete minus volume of 25 year 24 hour storm event

V(tf) = L(tf)\*W(tf)\*H(tf)

Ltf := 30 Wtf := 17.96 Htf := 2.27

Vtf := Ltf-Wtf-Htf-CF

 $Vtf = 9.149 \cdot 10^3$  (+)

Volume of reinforced concrete lip inside tank farm:

Vlip = Llip\*Wlip\*Hlip minus triangular volumes on two ends

Llip := 28 Wlip := 15.96 Hlip := 0.33

Vlip := Llip-Wlip-Hlip-CF

 $Vlip = 1.103 \cdot 10^3$  (-)

Volume of two triangular ends:

Volume = 0.5\*W\*L\*H

Lends := 4.17 Wends := 4.08 Hends := 0.33

Vends:=0.5-Lends-Wends-Hends-CF-2

Vends = 41.996 (+)

Twenty Five Year - Twenty Four Hour Stormwater Event

V = L x W x H x CF Lsw := 30 Wsw := 17.96

CF := 7.48 Hsw := 0.75 (9" rain event)

Vsw := Lsw·Wsw·Hsw·CF

 $V_{SW} = 3.023 \cdot 10^3$  (-)

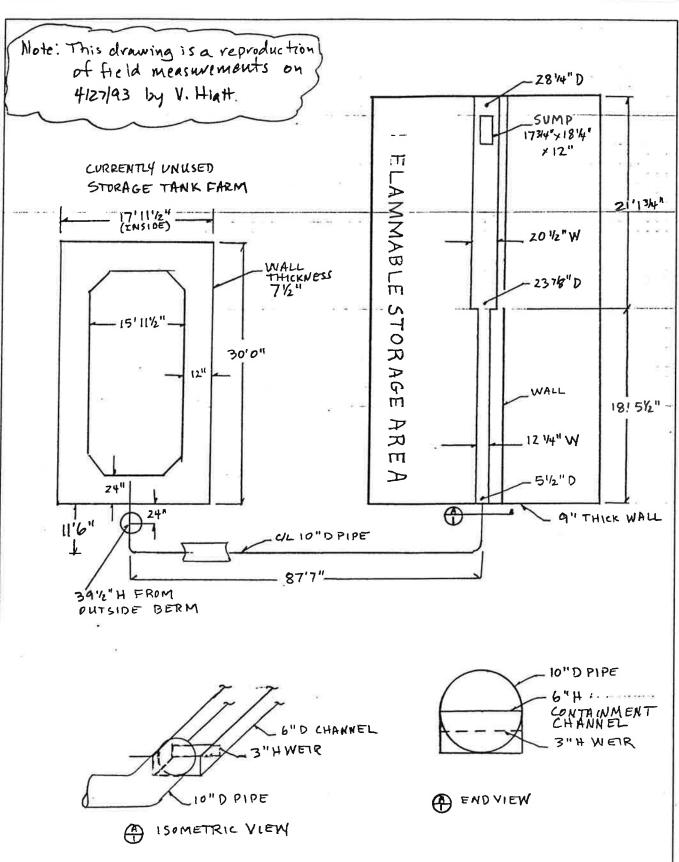
Total Volume Capacity of Flammable Storage Area With New Pipe and Tank Farm Storage Volume =

Volume := Vn - Vt + Vs + Vsump + Vpipe + Vtf - Vlip + Vends - Vsw

Volume = 6.151·10<sup>3</sup> gallons

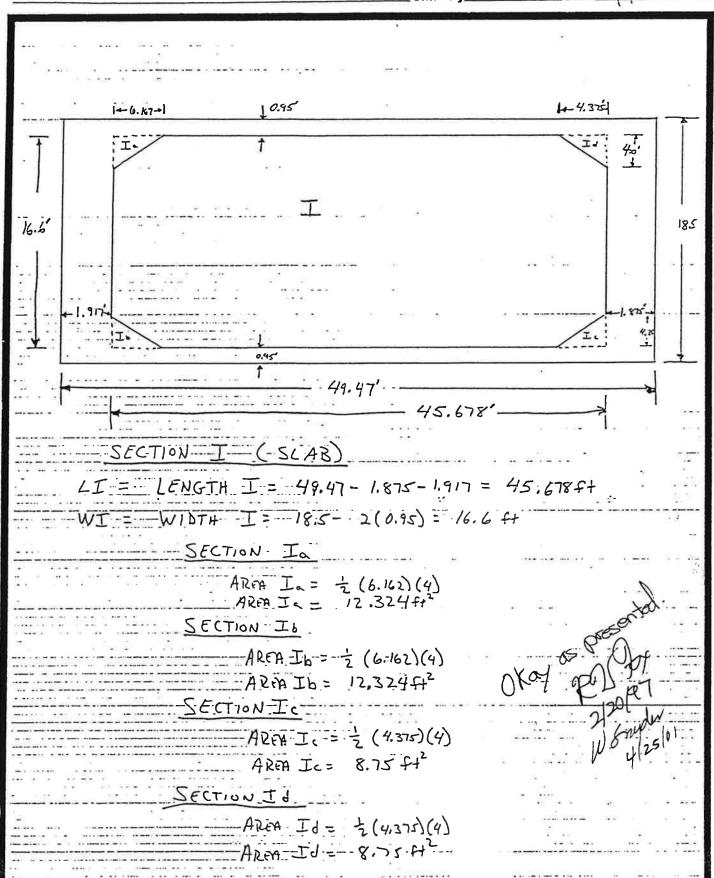


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Project	TAMPA PERMIT REM	IEWAL
Subject	CONTAINMENT CAL	CVLATIONS
Ву _	M-SNYDER	Date 5/24/01
Chkd hu	•	Date



# ERM-South, Inc. Environmental Resources Management

Project SAFETY - KLEEN 1312,19 W.O. No. Sheet of 4
Subject TANK CONTAINMENT AREA By MSH Date 10/4/40
Chkd by CHN Date 10/4/40



# ERM-South, Inc. Environmental Resources Management

Sheet 2 of 4 13112.19 \_ W.O. No. \_\_ Project SAFETY-KLEEN Date\_16/4/90 By MS H Subject TANK CONTAINMENT AREA Date 10 4 CIU Chkd by CLIN

SECTION I = LI \* WI - Ia - It - Id

= (45.678)(16.6) - 12.324-12.324 8.75-8.75

SECTION I = 716.105 ft2

AREA I = 716.105 FAZ LIP DEPTH = 0.72'

VOL: I = (716.105)(0.72) = 515.597 ft3

VOL. I = 515.597 ft3 \* NOTE: TANK SLAB VOLUME

## DIKE VOLUME

L = DIKE LENGTH = 49.47 f+ \_=

-W = DIKE WIDTH = 18.5 ft

H = DIKE HEIGHT = 3.9 f+ -

DIKE VOLUME = (49.47) (18.5) (3.9)

DIKE VOLUME = 3569.261 St



ERM-South, Inc.

**Environmental Resources Management** 

W.O. No. Sheet 3 of 4

By J. J. G. Date 5/31/95 Project SAFETY - KLEEN TAMPA

Subject TANK CONTAINMENT AREA Chkd by CHN

REVISED CALCULATIONS -> REFLECTS INSTALLATION OF A THIRD 15,000 GALLON TANK AND A FABRIC COVER OVER THE TANK FARM

TANK DISPLACEMENT.

R = TANK RADIUS = 5.25 FT.

H = TANK HEIGHT = 3.9 FT - .72 FT = 3.18 FT BELOW DIKE

> VOL = TERZH  $VOL = (3.142)(5.25)^{2}(3.18) = 275.392$

TANK = 275, 392 FT3

275,392 FT3 x 7.481 GAL = 2060.2 GAL

VOLUME OF LARGEST TANK

15,000 GAL x 1 FT3 = 2005.08 GAL



#### ERM-South, inc.

**Environmental Resources Management** 

SAFETY-KLEEN TAMPA Project \_\_\_

Subject TANK CONTAINMENT AREA

W.O. No. \_\_ By J.J. G. Date

\_\_ Sheet \_ <del>4</del> of 4

Chkd by CAN

Date 5/3

### RAIN VOLUME

A FABRIC COVER HAS BEEN INSTALLED OVER THE TANK FARM THAT SHOULD PREVENT ANY PRECIPITATION FROM ENTERING THE DIKE

DIKE VOLUME

3569.261 26,701.642

FT 3

GAL

- TANK SLAB

515.597

3,857.181

- TANK ILL DISPLACEMENTS

*550.784* 

4,120.415

- RAIN VOLUME

TOTAL CONTAINMENT

2502.88 Ft3 18,724.046 GAL

NEEDED CAPACITY VOLUME OF LARGEST TANK

= 15,000 GAL = 2005.08 FT3

TOTAL CONTAINMENT

VOLUME OF LARGEST TANK

\* ASSUMING 3 JANKS AND ACCOUNTING FOR DISPLACEMENT OF 2 TANKS

184-517x1,2 = 177 = 1325 680

(1) FON. WALL: 0.5x6.25x"0.33"=1.0CF

SAME AS EAST AREA, 377.2 CF = 2821 BAL

(1) BUMPER POST : (0.5) XT-/4 X 0.33 = < 0.1 CF

379.5-1.2-1-0.7 = 377.2 = 2821 GAL

EAST SPILL CONTROL AREA!

WEST SPILL CONTROL AREA!

 Appendix D
Subpart BB and CC Information



## **QUICK REFERENCE GUIDE**

# BOG NUMBER O220-005 Rev. 1-20-05 PROCEDURE FOR COMPLIANCE WITH RCRA SUBPARTS BB AND CC

**PURPOSE:** This procedure provides guidelines for complying with the requirements for controlling emissions from equipment leaks (Subpart BB) and controlling emissions from containers, tanks, surface impoundments and miscellaneous units (Subpart CC).

#### **ENVIRONMENTAL RISKS:**

Uncontrolled emissions from equipment and container leaks

#### **HS CONCERNS:**

• Slips, trips, and/or falls while conducting equipment inspections

#### **PROCEDURE:**

- Subpart BB
  - O All pumps, valves, flanges, compressors, manways, and open-ended lines in waste service must be tagged and numbered.
  - O Each open-ended valve must be capped at all times.
  - O Drawings of equipment and corresponding tag number must be on file.
  - O Vapor pressure must be maintained to show equipment is in heavy liquid service.
  - O List of valves that are unsafe to monitor (tagged equipment on top of a tank).
  - O Perform daily inspections of tags for leaks and documentation.
  - If leaks are found
    - Note the leaking equipment on the daily inspection
    - Tag the equipment with a weatherproof tag
    - Complete the Leak Detection & Repair form
    - First attempt at repair must be within 5 days with repair completed within 15 days or equipment is taken out of service
    - If > 15 days, submit a report to the Regional Administrator
    - All repair activities are to be recorded on the Leak Detection & Repair form

#### Subpart CC

- o Identify all waste storage tanks, drum storage areas, and transfer operations (drum emptying and truck stations)
- o Classify waste storage tanks as Level 1 or Level 2
- O Vapor pressure of waste storage tanks must be available for inspection.
- o All tank openings are kept closed except when adding or removing waste.
- o Satellite containers are kept closed except when adding waste.
- o Drum washer lids are kept closed except when adding or removing waste.
- Annual tank tops, covers, manhole covers, pressure relief devices, conservation vents, and long bolted manway inspections are completed
- o First attempt at leak repair must be within 5 days with repair completed within 45 days.

#### **REFERENCES:**

BOG O220-005 (Procedure for Compliance with RCRA Subparts BB and CC)

	JOB TITLE	O220-005 Procedure for Compliance with Subparts AA and BB
6	Customer Service Rep & Sr. Customer Service Rep	N/A
Ë	Oil Customer Service Rep	N/A
_ e	Vac Customer Service Rep	N/A
Branch & Marketing	Material Handler & Lead Material Handler (also includes CST)	Level-2
	Branch Secretary & Lead Secretary	N/A
Sales	EHS Manager, Branch General Manager, Service Center Manager, & Market Operations Manager (also includes CSM, MSM, MM, and MSS)	Level-2
	DC Manager & Operations Supervisor	Level-2
	AC Manager	Level-2
S	DC & AC Material Handler & Lead Material Handler	Level-2
ogistics.	DC/AC Chemical Handler & Lead Chemical Handler	Level-2
gis	DC/AC Reconditioner & Lead Reconditioner	N/A
10	DC Tank Farm Operator	Level-2
	DC & AC Drivers	N/A
	DC/AC Secretary & Clerical (also includes Office Coordinator and Manifest Clerk)	N/A



### Procedure for Compliance with RCRA Subparts BB and CC

#### <u>OPERATIONS</u>

Division/Department: Operations

Contact: Jane Spetalnick (609) 750-8716

Procedure: O220-005

Revision: 1

Revision Date: January 20, 2005 Supercedes: November 3, 2004 Issue Date: **November 3, 2004** 

Page: 1 of 12

Approved: Dave Eckelbarger/Bill Ross

#### Purpose:

The purpose of this Branch Operating Guideline is to provide general guidelines for complying with the requirements for controlling emissions from equipment leaks (Subpart BB) and controlling emissions from containers, tanks, surface impoundments and miscellaneous units (Subpart CC).

#### Scope:

This procedure applies to all U.S. Safety-Kleen Branches that are permitted Treatment, Storage, and Disposal Facilities (TSDFs).

### Responsibilities:

Branch General Manager (BGM)

Branch General Managers are responsible for following these procedures. BGMs also assist the EHS Manager in all compliance

issues as they relate to the branch.

Environment Health and Safety Managers (EHS Manager) EHS Managers are responsible for understanding all federal, state, and local regulatory issues pertaining to maintaining branch compliance with the control of emissions. EHS Managers conduct routine inspections and training to ensure branch compliance with Subparts BB and CC compliance.

#### **Definitions:**

Average Volatile
Organic
Concentration or
average VO
concentration

Means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the

requirements of 40 CFR 265.1084.

# Closed-vent system

A system that is not open to the atmosphere and that is composed of piping, connections, and necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

#### Closure device

Means a cap, hatch, lid, plug, seal, valve, or other type of fittings that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere (Example: a hinged access lid or hatch)

#### Connector

Any flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

#### **Equipment**

Each valve, pump, compressor, pressure relief device, sampling connection system, opened-ended valve or line, or flange, or any control devices or systems required by Subpart BB.

## In heavy liquid service

Means that the piece of equipment is not in gas/vapor service or in light liquid service (Example: mineral spirits is a heavy liquid)

# In light liquid service

Means that the piece of equipment containers or contacts a waste stream where the vapor pressure of one or more of the components in the stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight and the fluid is a liquid at operating conditions (Example: paint thinner is a light liquid)

#### Level 1 Container

 $\leq$  122 gallons, Storage of any hazardous; no waste stabilization or

>122 gallons, "Not in light material service" (See Subpart BB section of this BOG for Light Material Service definition); no waste stabilization

#### Level 2 Container

>122 gallons, "In light material service," no waste stabilization

# Level 3 Container

>26.4 gallons, Stabilization of hazardous waste

#### **Malfunction**

Means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or unusual manner. **Note:** Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

# Maximum Organic Vapor Pressure

Means the sum of the individual organic constituent partial pressure exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions (i.e., temperature, agitation, pH effects of combining wastes, etc.) reasonably expected to occur in the tank.

# Open-ended valve or line

Any valve, except pressure relief valves, have one side of the valve seat in contact with the process fluid and one side open to the atmosphere, either directly or through open piping.

# Point of waste origination

- (1) When the facility owner or operator is the generator of the hazardous waste, point of waste origination means the point where a solid waste is produced by a system, process, or waste management unit is determined to be a hazardous waste as defined by 40 CFR Part 261.
- (2) When the facility owner and operator is not the generator of the hazardous waste, point of the waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

#### **Attachments:**

Subpart BB Inspection Form (Attachment A) Example daily Subpart BB Inspection Form

Subpart BB Leak Detection and Repair Form (Attachment B) Example Leak Detection and Repair Form

Subpart CC Daily Inspection Form (Attachment C) Example Branch Daily Inspection Form (tanks and containers)

Subpart CC Annual Tank Inspection (Attachment D) Example Subpart CC Annual Tank Inspection (including difficult Subpart BB tagged fittings at tops of tanks).

#### Overview:

Procedures for compliance with both Subparts BB and CC are covered in the BOG.

Standards have been promulgated limiting organic emissions resulting from equipment leaks at new and existing hazardous waste treatment, storage and disposal facilities (TSDFs) requiring RCRA permit under RCRA Subtitle C.

These emission standards, set forth under 40 CFR Parts 264 and 265, Subpart BB, apply to any "leaks" from valves, pumps, compressors, pressure relief devices, sampling connection systems, flanges or other pipe connectors, control devices, and open-ended valves or lines that may result in organic emissions. Controls for these sources are

required at TSDFs where the equipment contains or comes in contact with hazardous waste streams with 10 percent or greater organics content (by weight).

Subpart CC regulations require owners and operators of tanks, container, surface impoundments, and miscellaneous units to limit VOC emissions from these units by providing covers and emission control devices.

**Tanks Subject to Subpart CC:** Any tank that is used to store or treat hazardous waste with a VO concentration 100 ppmw or greater.

**Containers Subject to Subpart CC:** Containers with design volume of greater than 0.1 m<sup>3</sup> (about 26 gallons) that are used to store or treat hazardous waste with a VO concentration 100 ppmw or greater.

Generators storing hazardous waste in containers and in tanks for up to 90 days are also subject to the Subpart CC regulations. Satellite accumulation drums of less than 55 gallons are not subject to Subpart CC.

#### **Procedures:**

#### Subpart BB

- Each piece of equipment in waste service, such as pumps, valves, flanges (includes flanges located at either end of a valve), compressors, other connectors (any threaded fitting), open-ended lines, and flanged manway covers must be marked (tagged) such that they are easily distinguished from other pieces of equipment (numbered).
- Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve which seals the open end at all times except when hazardous waste flows through the open-ended valve or line. Note: Any cover to an open-ended valve must be marked (tagged/number).
- Drawings to show location of each piece of equipment and corresponding tag/number must be current and maintained in the EHS file. Note: Notify EHS Manager if tags or equipment are added or removed.
- List numbers for valves (threaded fittings) that are designated as unsafe-to monitor or difficult-to-monitor. Provide an explanation of why these threaded fittings are unsafe or difficult to monitor on a daily basis and when they are inspected. (Example: Tagged equipment on top of vertical tank(s) is inspected annually in conjunction with the Subpart CC inspection. See Subpart CC section of this BOG)
- Each tagged piece of equipment must be visually inspected during daily inspections. If a leak is noticed, it must be noted on the daily inspection log for that day (See Attachment A).
- If pieces of equipment are found to be leaking:
  - 1. Note the leaking equipment on the daily inspection form (circle "N" and note the tag number at the bottom of the inspection sheet)
  - 2. Tag the leaking equipment with a weather proof tag.

- 3. Complete the Leak Detection and Repair form with the required information (See Attachment B). Record the status of repairs on this form.
- 4. The first attempt to repair the leak must be done in 5 calendar days from the time the leak was noted on the daily inspection sheet.
- 5. The leak must be repaired with 15 calendar days of detecting a leak or the equipment must be taken out of service. **Note:** Contact BGM and EHS Manager if it appears that repairs cannot be made within the 15 days.
- 6. If repairs are not made within 15 calendar days or taken out of service, the EHS Manager must submit a semi-annual report to the Regional Administrator describing the situation.
- 7. Remove the weatherproof tag when repairs are finished.
- 8. All activities to repair a leak must be recorded on a Leak Detection and Repair form (See Attachment C).
- The actual vapor pressure must be maintained in the operating record (EHS 999 file cabinet) to show that the equipment is in heavy liquid service. **Note:** EHS Manager will make sure this information is current, in the EHS 999 file, and available for inspection.

#### Subpart CC

- The facility operating record must identify all hazardous waste storage tanks for Subpart CC compliance (including 90 day tanks), drum storage areas and transfer operations, such as drum emptying and truck stations, as applicable units.
   Note: This information can be found in Part B Permit Application, but must be in EHS 999 file and available for inspection
- Hazardous waste storage tanks must be classified as Level 1 or Level 2 tanks based on the above referenced definitions.
   Note: Most branch storage tanks are classified as Level 1 tanks. Therefore, the following procedures address Level 1 tanks.
- Vapor pressure of the waste in the tank(s) must be available for inspection (see EHS 999 files).
- Tanks must be equipped with covers, and all cover openings are kept closed except when sampling, adding or removing waste materials.
   Note:
  - --Due to SK policy which requires the use of 55-gallon drums for accumulation of site generated wastes, all satellite accumulation containers of return and fill/dock wastes are subject to this requirement.
  - --In states that consider the drum washer(s) as Level 1 tanks, the drum washer(s) lid must be closed when drum washing operations are being conducted and when not in use if materials are present in the unit (exception being when wastes are being added or removed from the equipment), and be equipped with proper seals on the lid to control emissions.

- Annual inspections must be conducted on all tanks' covers and all tank openings, such as manhole covers, pressure relief devices, conservation vents and long bolted manways. (See Attachment D).
  - **Note:** If visible holes or gaps are noted in the inspection: Repair documentation must indicate the first attempt at repair was performed within 5 days and repairs must be completed within 45 days of discovery unless repair cannot be conducted without emptying the tank or taking it out of service and no alternative tank capacity is available. In such instances, a tank must be repaired the next time it stops operation and the repair must be completed before placing the tank back into service (Note: see EHS Manager for additional guidance if repair cannot be completed within 45 days of detecting a leak. Some permits or other regulatory requirements may not allow the continued operation of a tank beyond 45 days after discovering a defect. Severe leaks will require immediate action and may require the tank to be removed from service immediately, and repair certified by an independent Professional Engineer).
- An inspection of the top of the tank(s) must be conducted annually. The findings must be documented. (See Attachment D for example Subpart CC Annual and Difficult to Access Equipment Inspection Log)

Branches with vertical waste tank(s): Due to the difficult location of the Subpart BB tags for the threaded fittings at the top of these tank(s), daily inspection of these fittings is not possible. Therefore, in conjunction with the annual Subpart CC inspection, these tagged fittings will be inspected. The documentation of the Subpart CC annual tank inspection will also reference the tag numbers for the fittings located at the top of the tank and whether leaks were noted or not. (See Subpart BB section of this BOG and Attachment D for example of Subpart CC Annual Tank and Difficult to Access Equipment Inspection Log)

## ATTACHMENT A – Example Subpart BB Inspection Form

			NSPE	CTOR'S S	IGNAT	TURE:			-	-		
MONDAY	TUESDAY			WEDNES		T	THU	RSDAY			FRIDA	Υ
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DATE: (M / 0 / Y)												0 3
TIME		Mar.	-						-	1.4		-
Pump, Flange, or Valv	re Number	W	ON.	Ŧ	JES.		WED.		TH	URS.	100	AL
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3 —		A	N	A	N			d .	A	N	A	N
5		A	N	A	P.I		A A		A	N	A	N
6 —		A	N	A	N		A		A	N	A	N.
7		A	N	A	N		A N	a .	A	N	A	N
8		A	M	A	N		A N		A	N	A	N
9 —	100	A	N	A	N N		A N	-	A	N	A	N
11 _		Â	N	A	N N		A N		A A	N	A	N N
12		A	N	A	N		A N		A	N	Â	N
		A	N	A.	N		A N	1	A	N	A	N
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1777777		A	N	A	N		A N		A	N	A	N
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	es.	A	N	A	N		N		A	N	A	N
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37	-	A	N	A	N	A			A	N	А	N
38		A	И	A	N				A		A	N
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f, anter pump or valve #	El El	nd circl	e anor	ona edeiroo	biem:	poterdial I	eak ec	tive leel				
oothly, other:			and the			- September 1			3 4060	···SM sucid	ed terretoria i [M	· Ohrea

### ATTACHMENT B – Example Subpart BB Leak Detection and Repair Form

#### LEAK DETECTION AND REPAIR RECORD

EQUIPMENT	I.D. #	BRANCH#	
DESCRIPTION TANK SYST	on		
		DATE	INSPECTOR'S SIGNATURE
	OTENTIAL OR ACTUAL CTED?		
	THE POTENTIAL OR AK:		<del></del>
INSTRUMENT FIVE DAYS	r MONITORING WITHIN		
(1.)	RESULTS		
	ATTEMPT METHOD RESULTS		
	ATTEMPT METHOD		
(3.)	RESULTS		
	CCESSFUL REPAIR completed w/in 15 days)		
(4.)	METHOD		
FOLLOWUP N	IONTHLY MONITORING FOR VALVES		
(5.)	RESULTS		
(6.)	RESULTS		
MONITORING	SUMMARY	W	
CALIBRATIO BACKGROUND	#/OPERATOR (1) (2) N	(3) (4) (5)	(6)

ATTACH ANY DOCUMENTATION PREPARED BY THE CONSULTANT

### ATTACHMENT C - Example Subpart CC Daily Inspection Form Page 1 of 3

MONDAY  FRANSFER PUMPS AND HOSE  Fump Seals:  If 'N', circle appropriate pro  dolors:	TUESDAY  MC ES				TY.	HURSDA		JRS.	FRIDAY	Pd.
ump Seals:  If 'N', circle appropriate pro	ES A*			ES.	w	ED.	тні	JRS.	jr.	RI.
Fump Seals:  If 'N', circle appropriate pro	ES A*			es.	W	ED.	THI	JRS.	F	RJ.
ump Seals:  If 'N', circle appropriate pro	AA	N	100							
If 'N', circle appropriate pro		N		2.4		×1		3.		
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7 0 - 1	A	N	٨	N	A	N	A	N	ı A	N
If 'N', circle appropriate pro				ever to the first	111			- 64		
ittings:	A	N	Α	N	A	N	A	M	A	N
If 'N', circle appropriate pro	xolom: leaks, other:	A AMAZON / / /								
/alves:	A	N	A	N	A	N	A	N	A	N
If 'N', circle appropriate pro	oblem: leaks, sticking,	other.	V 55		-			100		
lose Connections and Fittings:	A	N	A	N	A	N	A	N	A	N
II 'N', circle appropriate pro	polem: cracked, loose,	, leaks, of	lher:	pagaman in the same			The same			
Hase Body:	A	N	A	N	A	N	A	N	A	N
If 'N', circle appropriate pro	blom: crushed, thin s	pots, leak	ts, ather: .			-^	~ — · · · · · · · · · · · · · · · · · ·			
RETURN AND FILL STATION	A	N	A	N	A	N	A	N	А	N
Wet Dumpater: If 'N', circle appropriate pro								Li-o	ā.	
opiec; athropaste hic	Diam. Scament adea.		Land plan				, 17	7.7		
Secondary Containment	A	N	A	N	A	N	A	N	A	N
If 'N', circle appropriate pro other:		l, leeks, d	leteriorebi	on, distort	ion, exce	ss debris	ď,			
pading/Unloading Area:	A	N	Α	N	А	N	A	N	A	N
	iplem; cracks, pondani	n Caret and	de deteci	aration of	her					

## ATTACHMENT C - Example Subpart CC Daily Inspection Form Page 2 of 3

		IME	DECTO	R'S SIGN	ATHE						
MONDAY	TUESDAY	il ve		DNESDA	-		JRSDA'			FRIDAY	
			- II								
DATE DAYOUN	1 . 1					3			<del></del>		-
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Tunk jio /g	eal.)	1		/		1		1		/	
ank Extenor:		A**	N	Α	N	А	N	A	N	A	N
If 'N', circle appropriate pro other:	blem: rusty or l	loose and	noring, l	ack of gro	unding, t	wet apots.	discolor	stion, leak	s, distan	ton,	
tigh Level Alarms		Α	N	A	N	A	N	A	N	A	N
If 'N', circle appropriate pro other:	blem: malluncl	kining "Pi	ower On	" light, me	Hunglion	Anerile gnir	simbe lig	ght,			
'ulume Gauges:		A	N	A	N	A	N	Α	N	A	N
If 'N', circle appropriate pro	blem: disconne	ected, atic	king, cor	rdensatio	n, other:				-		_
ONTAINMENT AREA (Tank Di	loe)	7.00			No.						
ny material which spills, leaks o	cotherwise acc	วมสายสาคร	in the d	like, Incluç	ınlar gou	water, mus	t be con	npietely re	moved i	vitnin 24	hou
often and Walls		A	N	A	N	Α	N	A	N	A	N
If 'N', circle apprepriate pro chipped, deterioration, displ			liko, ope	im drums i	n diko, p	onding/wo	s spots,	stains, se —	alant is ;	oiltod, cr	acku
igid Piping and Supports		A	N	A	N	Α	N	Α	N	Α	N
IF'N', circle appropriate prof	biem: distortion	, correste	n, paint	failure, les	iks, othe	d:			+	-	-
BSERVATIONS, COMMENTS,	DATE AND N	NTURE O	T BEPAI	RS OF AI	NA LLEW	IS INDIÇA	red as	°NOT AC	CEPTAI	ale":	
portion of the state of										نسلت	

## ATTACHMENT C - Example Subpart CC Daily Inspection Form Page 3 of 3

	Dally I (A separa	nspect	ion of C	complet	ER ST	ORAGE A	AREA Ige area	J				
ESCRIPTION OF AREA (e.g., met	ei shelter, n	ortheas	l corner	of warehs	use. etc	)						
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otal Volume of	-			The same	-	N TO THE			200			
DTAL VOLUME (IN GALLONS)	-				-		DE S					
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arbing, Floor and Sumple): ny material which spilla, leaks or it heing discovered.) If 'N', circle appropriate proble other:	em: ponding	CUITIU	lates in	the secon	dary cor	nteenment	must be o	complete	y remov	nidiw bev	24 hou	
eading/Unioading Area		Α	N	A	N	A	N	A	N	A	N	
If 'N', circle appropriate proble	em: cracks,	delerio	ration, p	ending/\w	el spois,	other:		*********	***			
BSERVATIONS, COMMENTS, DA	ATE AND N	ATURE	OF RE	PAIRS OF	ANY IT	EMS INDI	CATED A	S "NOT A	ACCEPTA	ABLE": _		
When calculating total volumes, a *Enter a short description of the w ** A = Acceptable N = Not Ac:  AN ITEM IS NOT APPLICABLE. ENT	rasto (e.g., N oceplablo	.S., I.C.	, paint, e	rka)		H THE AC	CEPTAULI	E/NOT AC	CEPTABL	E' ROWI		

### ATTACHMENT D- Example Subpart CC Annual Tank Inspection

## ANNUAL INSPECTION LOG SHEET FOR EQUIPMENT THAT IS 'DIFFICULT TO MONITOR

INSPECTOR'S NAME:		
INSPECTOR' S TITLE:		
INSPECTOR'S SIGNATURE:		
DATE (M/D/Y):		
ID #39 - NORMAL CONSERVATION VENTING	A	N
ID #40 - LONG BOLTED MANWAY EMERGENCY VENTING	A	N
If "N", circle appropriate problem: potential leak, actual leak, sticking, we operate smoothly, unusual odor, or	ear, dos	s not
For all leaks and potential leaks, the Leak Detection and Repair Record n completed.	ust be	
A = Acceptable		
N = Not Acceptable		

BOG # 12 of 12 1/20/05

## STUDENT QUIZ

Stu	ident l	t Name:	Date:
		Correct: (80% is a	needed for satisfactory score)
		BOG OB_2200  cedure for Compliance with RCF	05
1)	What	at 2 Subparts of 40 CFR 264 and 265 are co	overed by this BOG:
	c.	Subparts BB and CC Subparts DD and EE Both of the above None of the above	
2)	If leaking equipment is found during a daily inspection, it must be:		ection, it must be:
	a. b. c. d.	Tagged with a water proof tag A Leak Detection and Repair Form filled	out
3)	The f	first attempt to repair a leaking piece of equ	uipment must be done within:
	a. b. c. d.	5 days of notation on the Daily Log Form 10 days of notation on the Daily Log Form	l
4)	openi	ual inspections must be conducted on all ta nings, such as manhole covers, pressure re long bolted manways.	nks' tops, covers and all tank lief devices, conservation vents
	a. b.	TRUE FALSE	
5)	If a le	leak cannot be repaired in 15 calendar days	s, the equipment must be:
	a. b.	Reported to the VP of Public Information Taken out of Service	

c. Photograph for the 999 filed. Labeled as "leaking"