20 NORTH WACKER DRIVE, SUITE 1260, CHICAGO, IL 60606

TECHLAW INC.

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September 5, 2000

RZ2.R05705.01.ID.073

Mr. Brian Freeman
U.S. Environmental Protection Agency
Region 5 DE-9J
77 West Jackson Boulevard
Chicago, Illinois 60604

Reference: EPA Contract No. 68-W-99-017; Work Assignment No. R05705; Multi-Site Sampling and Analysis Support; Sheffield Steel, EPA ID No. ILD151759248; Joliet, Illinois; Draft Field Sampling Report; Task 05 Deliverable

Dear Mr. Freeman:

Please find enclosed TechLaw's Draft Field Sampling Report for sampling activities that occurred on August 23, 2000 at the Sheffield Steel facility in Joliet, Illinois. At the request of Mr. Kuefler, this report is being submitted in draft form for preliminary review by U.S. EPA. At this time, TechLaw has not received the corresponding analytical data from the CRL, but will include these data in the Final Field Sampling Report.

If you have any questions, please contact me or Mr. Terry Uecker, the TechLaw Work Assignment Manager, at (312) 345-8974.

PVW @ TechLaw Inc. com

Sincerely,

John Koehnen

John Koehnen
Regional Manager

Enclosure

cc: F. Norling, U.S. EPA, Region 5 (w/o attachment)
P. Kuefler, U.S. EPA Region 5 TA
T. Uecker, TechLaw WAM

Chicago Central Files
W. Jordan, Central Files

DRAFT FIELD SAMPLING REPORT
SHEFFIELD STEEL
JOLIET, ILLINOIS
EPA ID No. ILD151759248

Submitted to:

Mr. Brian Freeman
U.S. Environmental Protection Agency
Region 5 DE-9J
77 West Jackson Boulevard
Chicago, Illinois 60604

Submitted by:

TechLaw, Inc.
20 North Wacker Drive
Suite 1260
Chicago, Illinois 60606

EPA Work Assignment No.	R05705
Contract No.	68-W-99-017
EPA WAM	Brian Freeman
Telephone No.	(312) 886-2720
EPA Technical Advisor	Patrick Kuefler
Telephone No.	(312) 353-6268
TechLaw WAM	Terry Uecker
Telephone No.	(312) 345-8974

September 5, 2000

DRAFT FIELD SAMPLING REPORT
SHEFFIELD STEEL
JOLIET, ILLINOIS
EPA ID No. ILD151759248

SUMMARY OF FIELD ACTIVITIES

On August 23, 2000, a TechLaw, Inc. (TechLaw) field team conducted sampling at the Sheffield Steel (Sheffield) facility in Joliet, Illinois. The TechLaw field team was comprised of Mr. Terry Uecker and Ms. Kristi Pawski. The split sampling was conducted at the request of Mr. Brian Freeman, the U.S. EPA Region 5 Work Assignment Manager.

The purpose of this sampling event was to determine whether a release of used oil constituents and RCRA metals occurred due to potentially improper disposal of used oil and solid and hazardous waste at the facility. Samples were collected by members of the TechLaw team and were split with personnel from the Sheffield contractor, Huff and Huff, Inc. In addition to the TechLaw field team, the following personnel were present at the site during TechLaw's sampling visit:

Mr. Patrick Kuefler - Project Technical Advisor, U.S. Environmental Protection Agency
Mr. Frank Di Falco - Operations Manager, Sheffield Steel
Mr. Thomas Fredette - Director of Human Resources, Sheffield Steel
Ms. Sarah Monette - Huff and Huff, Inc.

During a 1999 U.S. EPA inspection, open drums, areas of stained soil, and 1- and 5-gallon containers of unknown content were observed in several areas of the facility. Three of these areas were targeted for this sampling event; the Oil Room/Gear Box, the Concrete Pad/Oil Drum Accumulation Area, and the Mill Scale Cooling Tank. When the TechLaw team arrived on August 23, 2000, soil at the Oil Room/Gear Box and the Concrete Pad/Oil Drum Accumulation Area had been excavated. The large debris pile on the Concrete Pad had also been removed, and according to Mr. Di Falco, the concrete was powerwashed after the removal effort. Based on these changes at the facility, fewer samples were collected than originally anticipated. A total of eight samples were collected and analyzed for RCRA metals. Seven of those samples were also analyzed for semivolatile organic compounds (SVOCs) and volatile organic compounds (VOCs). All samples were analyzed by the U.S. EPA Central Regional Laboratory (CRL) in Chicago, Illinois.

A Facility Map and Sampling Location Maps are presented in Appendix A. A Photographic Log is provided in Appendix B and a copy of the Techlaw team's field log is included in Appendix C.

The TechLaw team arrived at the Sheffield facility at 0830 and met Mr. Patrick Kuefler. The group proceeded to the Sheffield administrative office, where they met with Sheffield

representatives Frank Di Falco and Tom Fredette, and the facility consultant, Sarah Monette from Huff and Huff, Inc. The TechLaw team and Mr. Kuefler described the areas to be sampled and the constituents for which the samples would be analyzed. Mr. Kuefler gave Mr. Di Falco a copy of the TechLaw sampling and analysis plan (SAP) and the meeting concluded.

Soil Sample Collection

Mr. Kuefler, Mr. Uecker, Ms. Pawski, Mr. Di Falco, Mr. Fredette, and Ms. Monette began sampling at the Mill Scale Cooling Tank. The Mill Scale Cooling Tank is located east of the main facility, approximately 100 feet west of the DesPlaines River. The tank is used as a settling tank to remove mill scale and oil from water used in facility operations. The mill scale settles to the bottom of the tank, then is scooped out, collected in drums, and disposed of off-site. Three samples were collected at this location (S01 - S03). In all locations, VOC samples were collected first, followed by SVOC and metals samples. VOC samples were collected using EnCore samplers. All VOCs were collected as grab samples, each consisting of three EnCore samplers. All SVOC and metals samples were composites consisting of three aliquots of soil, collected approximately 1 to 3 feet apart. These aliquots were then placed into a plastic bowl and homogenized. The soil in the bowl was then placed into two samples jars; one for metals analysis and one for SVOC analysis.

Sample S01 was collected from an area of stained soil approximately 20 square feet in size, located approximately 30-40 feet west and slightly south of the cooling tank. The VOC sample was collected with EnCore samplers. The SVOC/metals sample was a composite consisting of three soil aliquots collected from within the area of stained soil, each approximately 3 feet apart. Sample S02 was collected from the northern edge of the stained soil, from the area under and around the hose/drain connection. Sample S03 was collected from a small area of soil next to a drain, immediately south of the cooling tank, which was stained black and had a slight oily smell. A small amount of water present beneath the drain in this area also had a visible oily sheen. Additional information regarding sampling locations and QA/QC samples are provided in Table 1 and sample location maps are provided in Appendix A.

The Oil Room/Gear Box, adjacent to Building 3, was the site of soil excavation following the 1999 U.S. EPA inspection. At the time of the inspection, an unused gear box stood outside the north side of Building 3. Oils remaining in the gear box had overflowed during a 1999 storm event, and had stained the adjacent soil. Neither the gear box nor the stained soil were present during the August, 2000 visit. Ms. Monette stated that a 6 foot by 10 foot area of soil was excavated to a depth of 3 or 4 feet, and that the gear box was disposed of. The area of excavated soil was then backfilled with gravel. Samples were collected from soil around the edges of the excavated area. In a similar manner as at the Mill Scale Cooling Tank, VOC samples were collected first, followed by SVOC/metals samples.

Three soil samples were collected at this location (S04 - S06). Sample S04 was collected from

along the west wall of Building 3; Sample S05 was collected from the western edge of the excavated area; and Sample S06 was collected along the north wall of Building 3. Gravel was encountered just beneath the surface soil at location S04. In order to collect the sample, a plastic spoon was used to gently push soil into the EnCore sampler. Additional information regarding sample locations and QA/QC samples are provided in Table 1 and sample location maps are provided in Appendix A.

The Concrete Pad/Oil Drum Accumulation Area was another site of soil excavation and debris removal following the 1999 U.S. EPA inspection. At the time of the 1999 inspection, the south end of the concrete pad was used as an accumulation area for staging drums that contained non-hazardous waste grease and oil-contaminated absorbent pigs before the drums were disposed of off-site. Drums were observed on their sides leaking grease and oil at that time. Grease and oil staining were also observed on the concrete pad and the adjacent ground surface to the east. The concrete pad was also the location of a large debris pile containing refractory brick.

According to Ms. Monette, the debris pile was removed and disposed of off-site, and the concrete pad was powerwashed. A 4 foot by 6 foot area of the ground surface to the east of the pad was excavated to a depth of approximately 4 feet. The excavation was backfilled with gravel and re-graded. The ground next to the utility pole was hand excavated due to the presence of electrical cable. Field screening was conducted after the excavation using a photoionization device (PID) and no contamination was noted.

Two samples were collected at this location (S07 and S08). Both samples were collected near the fence, along the eastern edge of the excavation. Sample S07 was analyzed for VOCs, SVOCs and metals. The VOC sample was collected first using EnCore samplers, followed by the SVOC/metals sample. Gravel was encoutered just beneath the surface soil at this location, so a plastic spoon was used to gently push soil into the EnCore sampler. Sample S08 was also collected along the fence, approximately 30-40 feet north of Sample S07. Sample S08 was only analyzed for metals. When Mr. Kuefler expressed interest in sampling at location S08, Mr. Di Falco asked that the sampling be delayed until he had a chance to speak with Sheffield Steel's lawyer. Ms. Monette and Mr. Fredette left the sampling site to call Sheffield Steel's lawyer. They returned 30 minutes later and conferred with Mr. Di Falco. Mr. Di Falco allowed the sample to be collected, but stated that he "agreed under protest" and that he would dispute the sampling results. Mr. Di Falco disputes the location of Sample S08 due to its proximity to the fence and the railroad tracks beyond the fence, which are not located on Sheffield Steel property. However, based on observations made in the field, drainage appeared to be in an onsite to offsite direction, and any offsite impacts would not likely impact this area.

Additional information regarding sample locations and QA/QC samples are provided in Table 1 and sample location maps are provided in Appendix A.

APPENDIX A

SHEFFIELD STEEL - FACILITY AND SAMPLE LOCATION MAPS

Table 1
Sample Locations and QA/QC Sample Information

Sample Number[1]	Sample Location	QA/QC Sample Information
2000RC05S01	Mill Scale Cooling Tank	MS/MSD
2000RC05D01	Mill Scale Cooling Tank	Duplicate (metals and SVOCs)
2000RC05S02	Mill Scale Cooling Tank	
2000RC05D02	Mill Scale Cooling Tank	Duplicate (VOCs)
2000RC05S03	Mill Scale Cooling Tank	
2000RC05S04	Oil Drum/Gear Box	
2000RC05S05	Oil Drum/Gear Box	
2000RC05S06	Oil Drum/Gear Box	
2000RC05S07	Concrete Pad/Oil Drum Accumulation Area	
2000RC05S08[2]	Concrete Pad/Oil Drum Accumulation Area	

[1] Sample location descriptions in the report text refer to the last three characters in the sample number. For example, sample number "2000RC05S01" is identified in the report text as "S01".

[2] Sample S08 was analyzed for metals only.

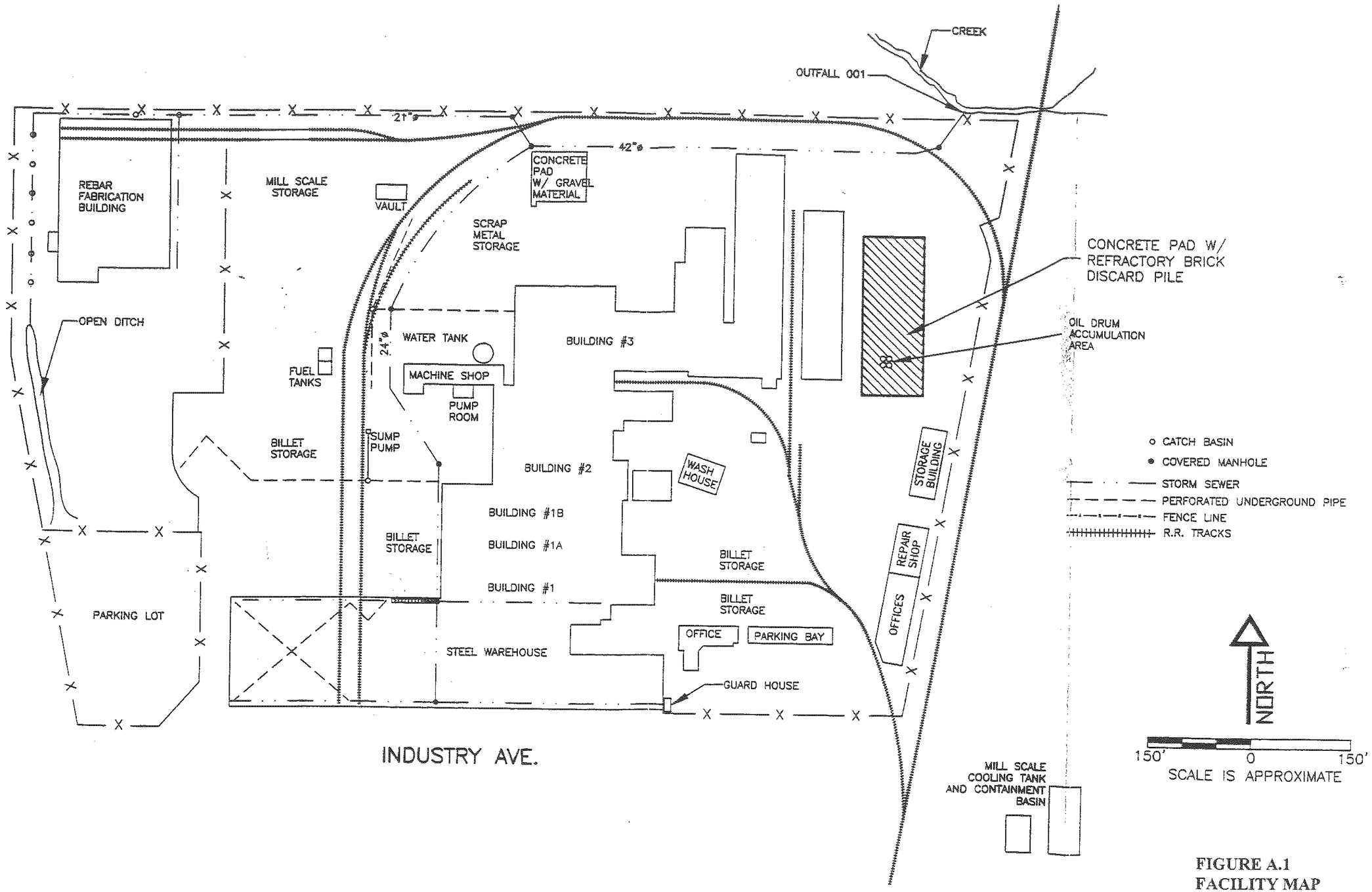


FIGURE A.1
FACILITY MAP

CADFILE:SWPPP-2

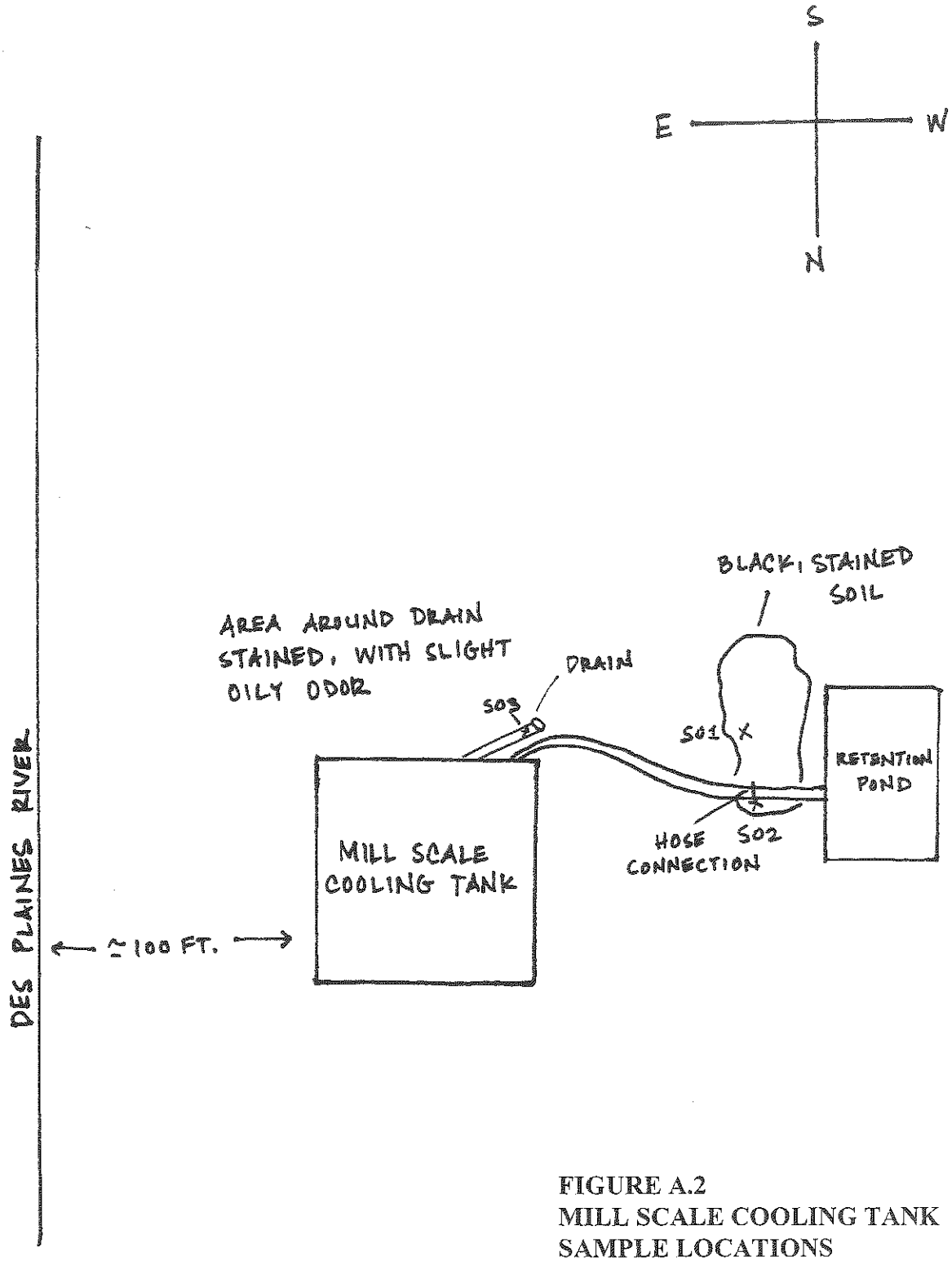


FIGURE A.2
MILL SCALE COOLING TANK
SAMPLE LOCATIONS

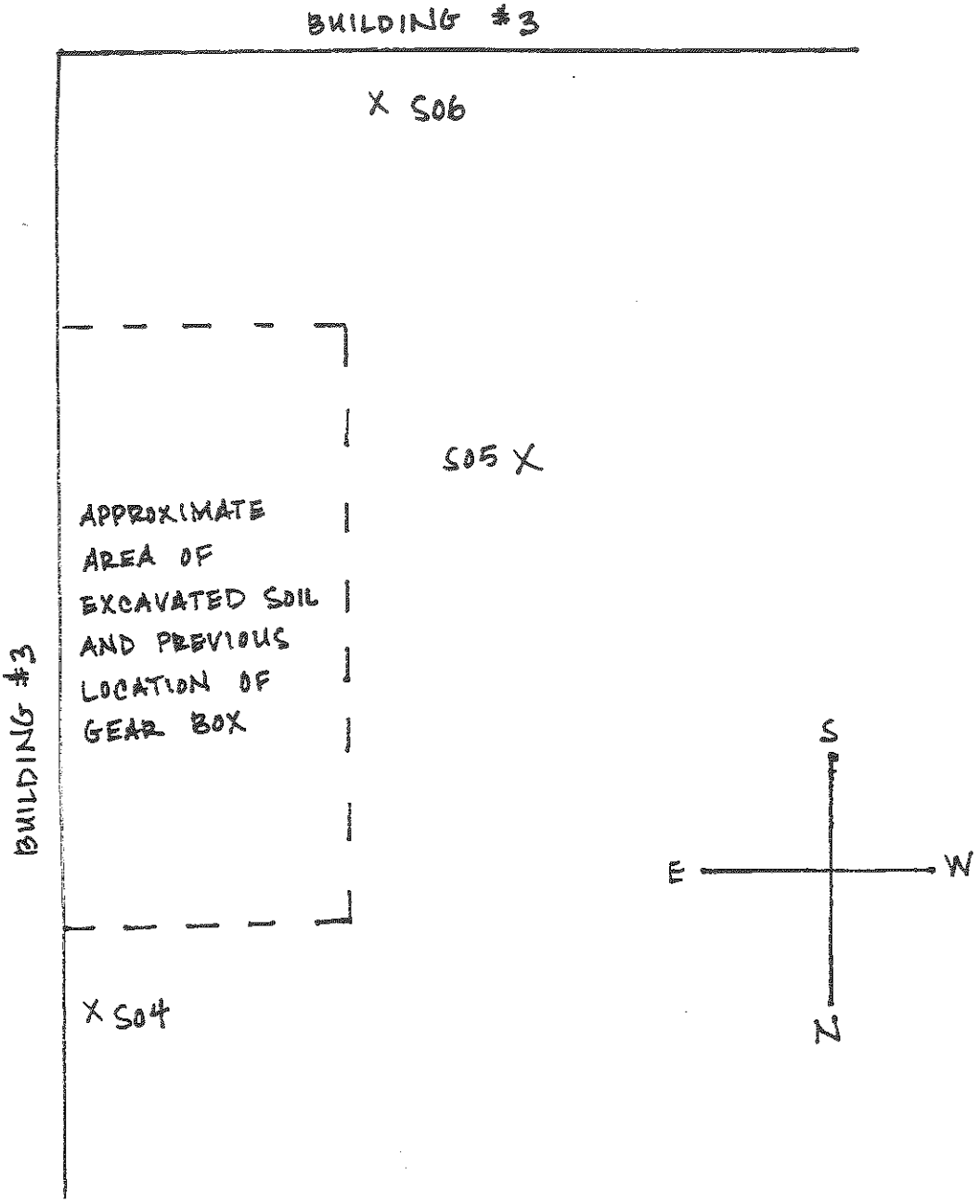


FIGURE A.3
OIL ROOM/GEAR BOX
SAMPLE LOCATIONS

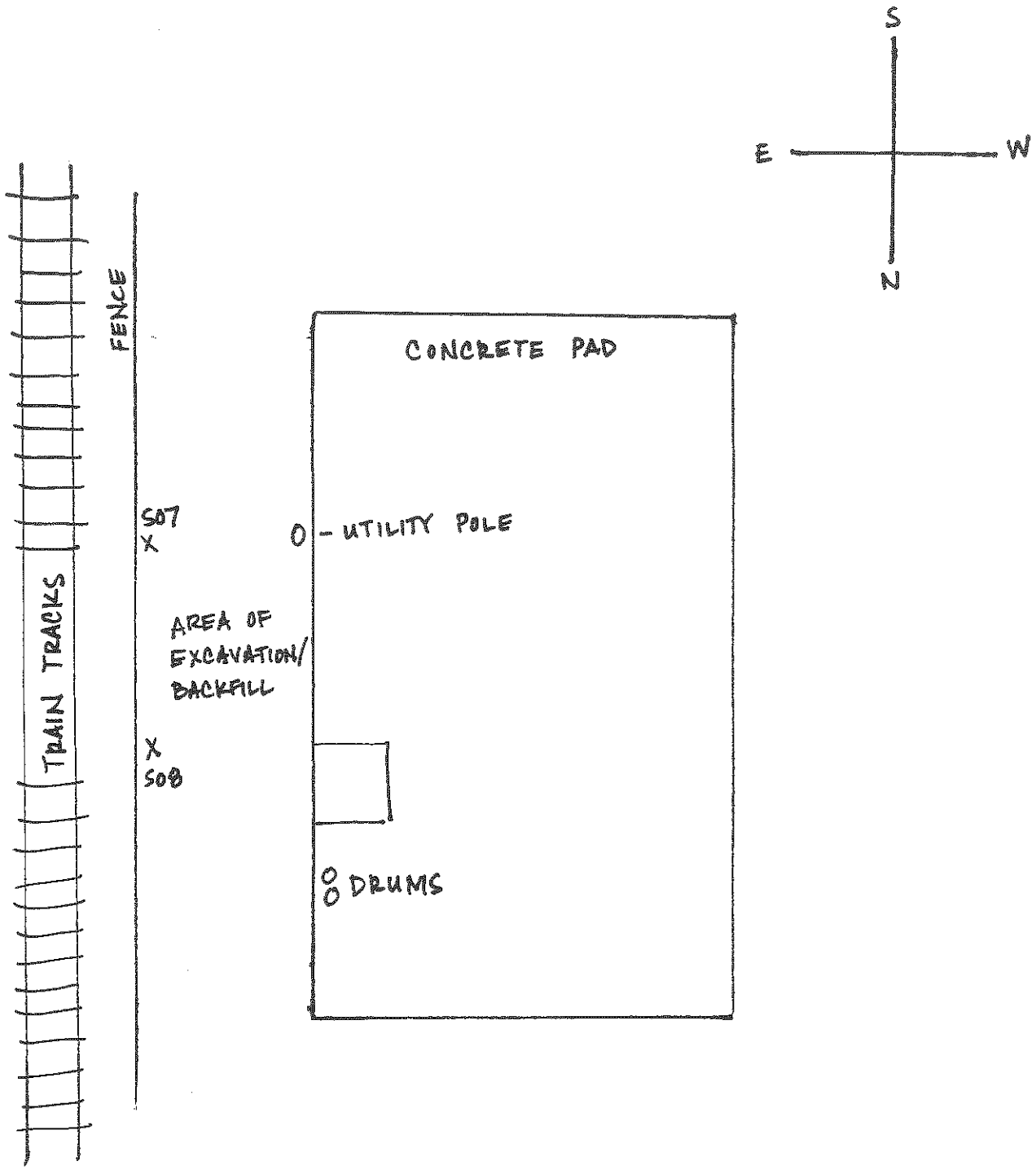


FIGURE A.4
CONCRETE PAD/OIL DRUM
ACCUMULATION AREA
SAMPLE LOCATIONS

APPENDIX B

SHEFFIELD STEEL - PHOTOGRAPHIC LOG

Photograph No. 1
Direction: SE

Date: 8/23/00
Time: 0902

Note: Overall view of the Mill Scale Cooling Tank sampling area. Note the pipe leading to the drain on the far left. The DesPlaines River is located through the trees, approximately 100 feet to the east.

Photograph No. 2
Direction: S

Date: 8/23/00
Time: 0903

Note: View of the Mill Scale Cooling Tank sampling area, looking south. Note the gravel over areas of stained soil.

Photograph No. 3 Date: 8/23/00
Direction: W Time: 0904

Note: View of the Mill Scale Cooling Tank sampling area, looking west. Note the blackened soils next to and behind the hose connection.

Photograph No. 4
Direction: NW

Date: 8/23/00
Time: 0921

Note: View of the collection of Sample S01 at the Mill Scale Cooling Tank. Note the blackened soils next to and beneath the hose connection.

Photograph No. 5
Direction: S (Down)

Date: 8/23/00
Time: 0934

Note: Collection of Sample S01 (SVOCs/metals) at the Mill Scale Cooling Tank. The sample is a composite consisting of three grab samples located within the area of blackened soil.

Photograph No. 6
Direction: NW

Date: 8/23/00
Time: 0955

Note: View of S01 sampling area at the Mill Scale Cooling Tank. Note the three locations from which the composite SVOC/ metals sample was collected.

Photograph No. 7
Direction: N

Date: 8/23/00
Time: 1000

Note: Collection of Sample S02 (VOCs) at the Mill Scale Cooling Tank. The sample was collected from the area around and beneath the hose/drain connection.

Photograph No. 8
Direction: NW

Date: 8/23/00
Time: 1004

Note: Collection of Sample S03 (SVOCs/metals) at the Mill Scale Cooling Tank. The sample was a composite comprised of three grab samples collected around and beneath the hose/drain connection.

Photograph No. 9
Direction: E

Date: 8/23/00
Time: 1016

Note: Collection of Sample S03 at the Mill Scale Cooling Tank. Note the DesPlaines River, visible through the trees. A slight odor was detected during the sample collection, and a visible sheen was noticed on the small amount of water beneath the drain.

Photograph No. 10
Direction: SE

Date: 8/23/00
Time: 1053

Note: View of the previous location of the gear box, outside Building #3 at the Oil Room/Gear Box. The soil from this area was excavated following the 1999 U.S. EPA inspection, and the gear box was disposed of off-site.

Photograph No. 11
Direction: S

Date: 8/23/00
Time: 1058

Note: Collection of Sample S04 (VOCs) at the Oil Room/Gear Box. Gravel was encountered immediately below the soil surface, so EnCore samplers were filled by gently pushing soil into the sampler with a plastic spoon.

Photograph No. 12
Direction: S

Date: 8/23/00
Time: 1124

Note: Collection of Sample S05 (SVOCs/metals) at the Oil Room/Gear Box, from the western edge of the soil excavation.

Photograph No. 13
Direction: E

Date: 8/23/00
Time: 1137

Note: Collection of Sample S06 at the Oil Room/Gear Box. This sample was collected where the west and north walls of Building #3 meet, along the approximate south edge of the soil excavation area.

Photograph No. 14 Date: 8/23/00
Direction: E Time: 1149

Note: Overview of the Concrete Pad/Oil Drum Accumulation Area. This was previously the location of the debris pile containing refractory brick and the storage area for drums containing grease and used oil.

Photograph No. 15
Direction: S

Date: 8/23/00
Time: 1149

Note: View of the Concrete Pad/Oil Drum Accumulation Area, facing south.

Photograph No. 16
Direction: E

Date: 8/23/00
Time: 1200

Note: Collection of Sample S07 at the Concrete Pad/Oil Drum Accumulation Area. Gravel was encountered beneath the soil surface, so a plastic spoon was used to gently backfill the EnCore sampler. Sample S07 was collected on the eastern edge of the excavated and backfilled area next to the Concrete Pad.

Photograph No. 17
Direction: E (Down)

Date: 8/23/00
Time: 1302

Note: Collection of Sample S08 at the Concrete Pad/Oil Drum Accumulation Area. This sample will only be analyzed for RCRA metals. The sample is a composite comprised of three grab samples collected from within the washout area.

APPENDIX C

SHEFFIELD STEEL - FIELD LOGBOOK

IF FOUND PLEASE RETURN TO:

NAME _____

COMPANY _____

STREET _____

CITY _____ STATE ____ ZIP ____

PHONE _____ _____

PROPERTY SUPPLIES
49365

JOB BOOK

FROM PENINSULAR PUBLISHING

PROJECT NAME SHEFFIELD STEEL

PROJECT NUMBER 2000RC05

CREW T. UECKER, K. PAWSKI

DATE 8/23/00 BOOK # 1 OF ____

WEATHER HOT & HUMID, TEMP. IN 80s, OVERCAST IN EARLY A.M. BECOMING SUNNY BY LATE MORNING.

FIELD BOOK
16 PAGE
8 LEAVES
50% RAG

CURVE FORMULAS

$T = R \tan \frac{1}{2} I$

$T = \frac{50 \tan \frac{1}{2} I}{\text{Sin. } \frac{1}{2} D}$

$\text{Sin. } \frac{1}{2} D = \frac{50}{R}$

$\text{Sin. } \frac{1}{2} D = \frac{50 \tan \frac{1}{2} I}{T}$

$R = T \cot. \frac{1}{2} I$

$R = \frac{50}{\text{Sin. } \frac{1}{2} D}$

$E = R \text{ ex. sec } \frac{1}{2} I$

$E = T \tan \frac{1}{4} I$

$\text{Chord def.} = \frac{\text{chord}^2}{R}$

$\text{No. chords} = \frac{I}{D}$

$\text{Tan. def.} = \frac{1}{2} \text{ chord def.}$

The square of any distance, divided by twice the radius, will equal the distance from tangent to curve, very nearly.

To find angle for a given distance and deflection.

Rule 1. Multiply the given distance by .01745 (def. for 1° for 1 ft.) and divide given deflection by the product.

Rule 2. Multiply given deflection by 57.3, and divide the product by the given distance.

To find deflection for a given angle and distance. Multiply the angle by .01745, and the product by the distance.

GENERAL DATA

Right Angle Triangles. Square the altitude, divide by twice the base. Add quotient to base for hypotenuse.

Given Base 100, Alt. $10.10^2 \div 200 = .5$. $100 + .5 = 100.5$ hyp.

Given Hyp. 100, Alt. $25.25^2 \div 200 = 3.125$. $100 - 3.125 = 96.875 =$ Base.

Error in first example, .002; in last, .045.

To find Tons of Rail in one mile of track: multiply weight per yard by 11, and divide by 7.

Leveling. The correction for curvature and refraction, in feet and decimals of feet is equal to $0.574\,d^2$, where d is the distance in miles. The correction for curvature alone is closely, $\frac{2}{3}d^2$. The combined correction is negative.

Probable Error. If d_1, d_2, d_3, etc. are the discrepancies of various results from the mean, and if Σd^2 = the sum of the squares of these differences and n = the number of observations, then the probable error of the mean $= \pm 0.6745 \sqrt{\frac{\Sigma d^2}{n(n-1)}}$

MINUTES IN DECIMALS OF A DEGREE

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

INCHES IN DECIMALS OF A FOOT

1-16	3-32	⅛	3-16	¼	5-16	⅜	½	⅝	¾	⅞
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

8/23/00 (1)

8:45 Presampling mtg at Sheffield office. Representatives present were -
- USEPA - Pat Kuefler
- TechLaw - Terry Uecker
- TechLaw - Kristi Pawski
- Huff & Huff - Sarah Monette
- Sheffield - Tom Fredette
- Sheffield - Frank DiFalco

Discussed areas to be sampled. DiFalco told us that the Oil Storage Area had been cleaned up. Sarah and DiFalco left to call their lawyer, then returned and said they were ready to go. Left for first site.

9:00 - Arrived at Cooling Water Tank and surveyed site.

All samples will be split with Sheffield Contractor (Huff & Huff). They have their own soil jars - TL will provide EnCore samplers.

Weather overcast at arrival, becoming sunnier (but still slightly hazy) as the morning ends. Temperature in 80s, humid.

KAP

Time: 0902 Photographer: T. Uecker
Direction: S Location: Cooling Water Tank
PHOTO #1
NOTES: Overall site picture. Note pipe leading to drain on far left of photo. (1 of 3)

PHOTO #2
Time: 0903 8/23 KAP Photographer: T. Uecker
Direction: SSW/E Location: Cooling Water Tank
Note: Photo 2 of 3. Note gravel over blackened soils.

PHOTO #3
Time 0904 Photographer: T. Uecker
Direction: SE Location: Cooling Water Tank
Note: Note blackened soils next to and behind hose connection.

09:21 Began collection of VOC samples. Sample #S01 collected with EnCore sampler. 8/23/00 KAP
PHOTO #4 Photographer K. Pawski
Time 0922 Location: Cooling Water Tank
Direction: N
Note: Collection of Sample #S01.
KAP

Huff & Huff rep. again clarified with T. U. that we will run a full scan on samples, rather than analyzing for specific constituents in the lab.
0934 - Began collection of Sample #S021 - metals KAP 8/23/00
PHOTO #5
Time: 0934 Photographer: K. Pawski
Direction: SE Location: CWT
Note: Sample S021, which will be analyzed for metals. Sample is a composite collected from 3 areas of the blackened soil area. KAP 8/23/00 metals
0952 - collection of duplicate/spike sample at S02 for VOCs and sample S02-VOC.
PHOTO #6
Time: 0955 Photographer: K. Pawski
Direction: N Location: CWT
Note: View of S01 sampling area. Note areas from which composite sample was collected.
PHOTO #7
Time: 1000 Location: ~~EWT~~ CWT KAP 8/23/00
Direction: N Photographer: K. Pawski
Note: Collection of Sample #S02-VOC.
KAP

PHOTO #8
Time: 1004 Photographer: K. Pawski
Direction: N Location: CWT
Note: Collection of Sample #S02 - metals
1013 - Began collection of Sample #S03. Ground around S03 is gravel, with sizeable pieces (1-2") of rock.

PHOTO #9
Time: 1016 KAP 8/23/00 Photographer: K. Pawski
Direction: SE Location: CWT
Note: Collection of Sample #S03 - VOCs. Note the river, visible through the trees. There is a slight odor of oil around S03, and a visible sheen on the little amount of water beneath the drain.

1035 - Arrived at Concrete Pad/Oil Drum Area. Site is cleaned up. Gravel area was excavated and graded to allow trucks in. Excavated to approx. 4 ft. 6' x 4' area. Next to electric cable, ground was hand excavated. Field screening (PID) was done after excavation. Concrete pad was powerwashed.

KAP

1042 - Arrived at Gear Box/Oil Room. Excavated soil to 3-4 ft. along building & out approx. 10 ft. Area was then backfilled with gravel. According to Sarah & Frank, gear box was disposed of.

PHOTO #10
Time: 1053 Photographer: K. Pawski
Direction: SE Location: Gear Box / Oil Room
Note: View of ~~outside~~ KAP 8/23/00 previous location of gear box, which was removed during excavation.

1056 - Began collection of Sample #S04 along NW corner of bldg.

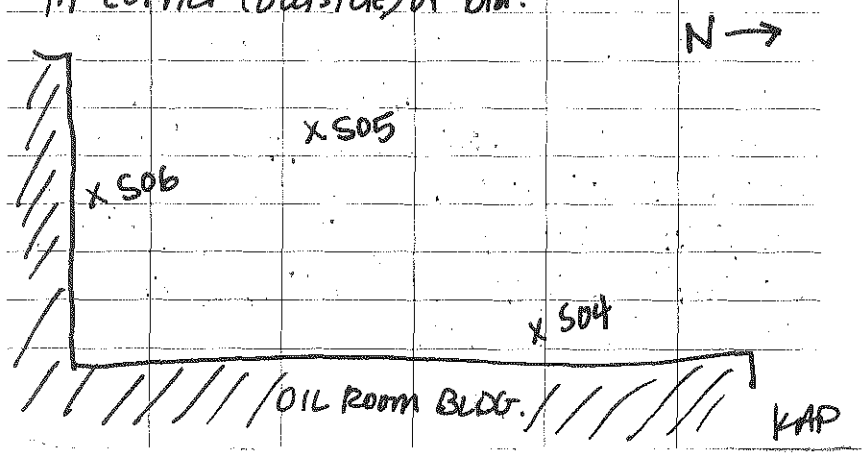
PHOTO #11
Time: 1058 Photographer: K. Pawski
Direction: S Location: Gear Box/Oil Room
Note: Collection of Sample #S04 - VOCs. Gravel was encountered immediately below the soil surface, so EnCore samplers were filled ~~with aid of~~ 8/23/00 KAP by gently pushing soil into sampler with a plastic spoon.

KAP

1106 - Collection of S04 - metals. Sample is a composite of 3 areas, each approx. 3 inches apart.

1113 - Collection of Sample #S05 - VOCs. Sample collected approx. 10 ft. out from bldg.
PHOTO #12 KAP 8/23/00
Time: ~~1114~~ 1124 Photographer: K. Pawski
Direction: S Location: Gear Box/Oil Room
Note: Collection of Sample #S05 - metals
No gravel encountered during collection of VOC samples - Encores were filled using traditional method.
1123 - Collection of S05 - metals/BNAs

1133 - Began collection of Sample S06 in corner (outside) of bld.



KAP

PHOTO #13
Time: 1137 Photographer: K. Pawski
Direction: E Location: Gear Box/Oil Room
Note: Collection of Sample #S06 - VOCs.

1140 - Began collection of S06 - metals/BNAs. Sample is a composite from 3 areas, each approx. 1-2 3ft. apart.
KAP 8/23/00

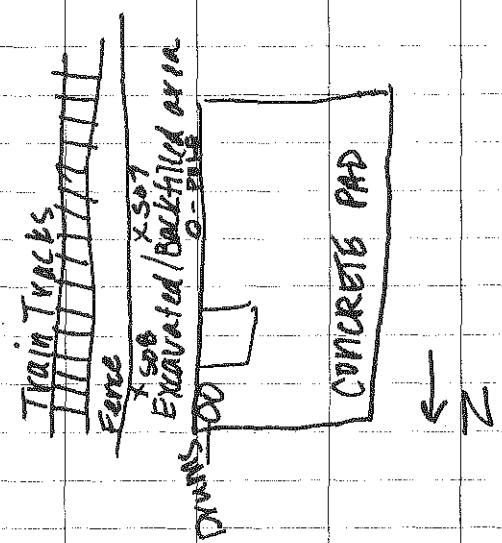
1145 - Returned to Oil Drum Accumulation Area.

PHOTO #14
Time: 1149 Photographer: K. Pawski
Direction: E Location: Oil Drum Accum. Area
Note: Area of previous refractory brick accumulation area. Also used previously to store used oil drums.
PHOTO #15
Time: 1149 Photographer: K. Pawski
Direction: S Location: Oil Drum Accumulation Area.
Note: Same as previous photo, from different direction.

KAP

(8) 8/23/00

1155 - Began collection of Sample # S07.
PHOTO #16
Time: 1200 Photographer: K. Pawski
Direction: E Location: Oil Drum Acc. Area
Note: Collection of S07 - VOCs. Gravel was encountered beneath soil surface, so a plastic spoon was used to backfill the Encore Sampler.
Sample was taken on the edge of the excavated & backfilled area along the eastern side of the concrete pad.
1210 - Collection of S07 - metals/BNAs



KAP

8/23/00 (9)

Pat Kuefler expressed interest in sampling one more area along the fence, approx. 30 ft. north of Sample #S07. Mr. DiFalco asked that we wait while S. Monette & T. Fredette left to go phone Mr. DiFalco's lawyer. (Approx. 1220).
1255 - Sheffield and Huff & Huff reps returned from calling lawyer. Mr. DiFalco "agreed under protest" to allow collection of Sample #S08.

Measured the following distances -
30 ft. pole to S08
17 ft. straight east from concrete to S08
15.5 ft. straight east from concrete to S07

1256 - Collection of Sample #S08
PHOTO #17
Time: 1302 Photographer: K. Pawski
Direction: E (down) Location: Oil Drum Acc. Area
Note: Collection of Sample #S08 - metals
~~Only~~ KAP 8/23/00
Will not collect for VOCs at this location, or SVOCs. Only metals.
Sample composited from 3 locations within washout area.

KAP

(10) 8/23/00

After collection of S08, exchanged business cards & departed facility at approx. 1315.

END OF LOG.

KAP

SITE INVESTIGATION WORK PLAN
STAINED SOIL AREAS
SHEFFIELD STEEL CORP.
JOLIET FACILITY
USEPA ID No.: ILD 151 759 248

prepared for:

Sheffield Steel Corp.
Joliet, Illinois

prepared by:

Huff & Huff, Inc.
James E. Huff, P.E.
Sarah Monette, P.E.

January 18, 2000

HUFF & HUFF, INC.
ENVIRONMENTAL CONSULTANTS
LaGRANGE, ILLINOIS

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A Health and Safety Plan

LIST OF ACRONYMS

AQAP	Analytical Quality Assurance Plan
IEPA	Illinois Environmental Protection Agency
MS/MSD	matrix spike / matrix spike duplicate
QA/QC	quality assurance / quality control
RCRA	Resource Conservation and Recovery Act
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

1.1 Investigation Objectives

This work plan addresses three stained soil areas identified at the Sheffield Steel facility located in Joliet, Illinois. One area is located at the facility's "oil drum accumulation area," one is located near the "oil room," and the third is located near the "mill scale cooling tank." The stained soils were identified in August 1999, during a site inspection conducted by the United States Environmental Protection Agency (USEPA). The soils appeared to be stained with petroleum oil.

The objective of the proposed site investigation is to determine whether the soils should be managed as hazardous wastes, as defined by the Resource Conservation and Recovery Act (RCRA). If the soils are hazardous wastes, then an additional work plan for their remediation will be submitted to the USEPA.

1.2 Project Organization and Key Personnel

The USEPA requested Sheffield Steel address the stained soils in correspondence dated December 9, 1999. Sheffield Steel's legal counsel (Collier, Shannon, Rill & Scott) has retained Huff & Huff, Inc. (H&H) to perform the investigation.

Key project personnel are:

Mr. Douglas Strickland	Sheffield Steel Corp.	Mgr. Of Env., Health, & Safety
Mr. Frank DiFalco	Sheffield Steel Corp.	Operations Manager
Mr. Ken Morris	Sheffield Steel Corp.	Maint. & Eng. Manager
Mr. John L. Wittenborn	Collier, Shannon, Rill & Scott	Legal Counsel
Mr. Jeffrey Longsworth	Collier, Shannon, Rill & Scott	Legal Counsel
Mr. James E. Huff, P.E.	H&H Environmental Consultants	Principal
Ms. Sarah Monette, P.E.	H&H Environmental Consultants	Project Engineer

1.3 Project Schedule

The anticipated project schedule is as follows:

Site Investigation Field Work ..... March 2000

Data Review and Assessment ..... March/April 2000

Preparation and Review of Findings Report ..... April 2000

Submission of Findings Report to USEPA ..... May 2000

Submission of Remediation Work Plan to USEPA (if hazardous waste identified) ..... May 2000

2. STAINED SOIL AREAS

2.1 Oil Drum Accumulation Area

The "oil drum accumulation area" is an accumulation area for drums containing non-hazardous waste grease and oil-contaminated absorbent "pigs." The accumulation area is used for staging the drums before off-site disposal at Land and Lakes non-hazardous landfill. **Figure 2-1** depicts the area.

The entire accumulation area is underlain with a bermed concrete pad to avoid direct exposure of the drums to the ground. Some grease and oil has stained the concrete pad and the adjacent ground surface to the east, as observed during USEPA's August 1999 inspection. The staining is the result of minor leaks and spills during routine drum transfer operations. Approximately 60 square feet of soil are affected; the staining appears to be limited to the ground surface.

Sheffield Steel will remove the stained soils and place them into drums, then sample the drummed soils to determine whether they are RCRA hazardous wastes (see **Section 3**). *[Note: Sheffield Steel also will steam clean the concrete pad, as outlined in "Site Remediation Work Plan, Cleaning of Concrete Pad," which is provided under separate cover.]*

2.2 Oil Room / Gear Box

An out-of-use gear box is located on the ground outside of the "oil room." Oils remaining in the gear box overflowed during storm events in 1999. The overflows stained the ground surface, as observed during USEPA's August 1999 inspection. Approximately 45 square feet of soil are affected; the staining appears to be limited to the ground surface. **Figure 2-1** depicts the area of staining.

Sheffield Steel will remove the stained soils and place them into drums, then sample the drummed soils to determine whether they are RCRA hazardous wastes (see **Section 3**).

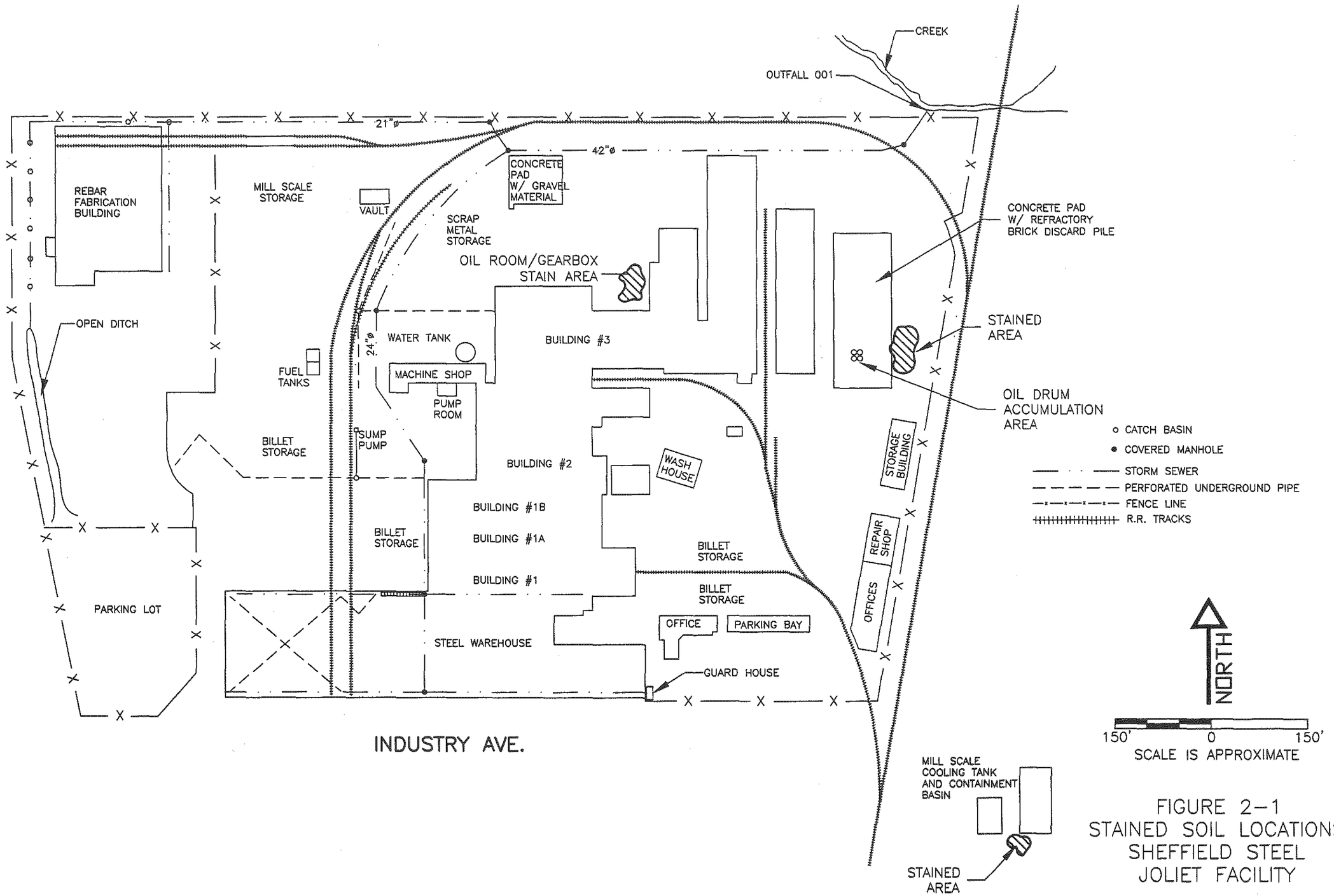

FIGURE 2-1
STAINED SOIL LOCATIONS
SHEFFIELD STEEL
JOLIET FACILITY

CADFILE:SWPPP-1

2.3 Mill Scale Cooling Tank

The "mill scale cooling tank" is used as a settling tank to remove mill scale and oil from waters used at the facility. The mill scale settles to the bottom the tank, then is scooped out, collected into drums, and disposed of off-site. The oils are skimmed from the top of the tank, collected into drums, and disposed of off-site. **Figure 2-1** depicts the mill scale tank area.

The adjacent ground surface directly to the south of the tank is stained with a material that appears to be oil, as observed during USEPA's August 1999 inspection. Approximately 100 square feet of soil are affected; the staining appears to be limited to the ground surface.

Sheffield Steel will remove the stained soils and place them into drums, then sample the drummed soils to determine whether they are RCRA hazardous wastes (see **Section 3**).

3. SAMPLING APPROACH AND RATIONALE

3.1 Overview of Approach and Rationale

This investigation will determine whether the three stained soil areas should be managed as RCRA hazardous wastes for disposal.

3.2 Contaminants of Potential Interest

The contaminants of potential interest will be limited to those contaminants that would make the stained soils RCRA hazardous wastes. Of the four potential hazardous waste characteristics, the only characteristic of interest is toxicity; petroleum stained soils would not reasonably be expected to have the characteristics of reactivity, ignitibility, or corrosivity. This expectation is consistent with the generator's knowledge and the characteristics of the wastes routinely generated at the facility.

In order to determine whether the soils exhibit the RCRA toxicity characteristic, a full scan of TCLP organics and TCLP metals will be performed. The TCLP parameters are listed in **Table 3-1**, along with their RCRA regulatory concentrations.

3.3 Soil Sample Locations

A total of three soil samples will be collected:

- One sample will be collected from the drums of soil from the oil drum accumulation area.
- One sample will be collected from the drums of soil from the oil room / gear box area.
- One sample will be collected from the drums of soil from the mill scale cooling tank area.

TABLE 3-1

TCLP PARAMETERS

TCLP Organics	RCRA Level, mg/L	TCLP Metals	RCRA Level, mg/L
Benzene	0.5	Arsenic	5.0
Carbon tetrachloride	0.5	Barium	100.0
Chlorobenzene	100.0	Cadmium	1.0
Chloroform	6.0	Chromium	5.0
1,2-Dichloroethane	0.5	Lead	5.0
1,1-Dichloroethylene	0.7	Mercury	0.2
Methyl ethyl ketone	200.0	Selenium	1.0
Tetrachloroethylene	0.7	Silver	5.0
Trichloroethylene	0.5		
Vinyl chloride	0.2		
o-Cresol	200.0 [a/]		
m-Cresol	200.0 [a/]		
p-Cresol	200.0 [a/]		
1,4-Dichlorobenzene	7.5		
2,4-Dinitrotoluene	0.13 [b/]		
Hexachlorobenzene	0.13 [b/]		
Hexachlorobutadiene	0.5		
Hexachloroethane	3.0		
Nitrobenzene	2.0		
Pentachlorophenol	100.0		
Pyridine	5.0 [b/]		
2,4,5-Trichlorophenol	400.0		
2,4,6-Trichlorophenol	2.0		

a/ If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol concentration is used. The regulatory level for total cresol is 200 mg/L.

b/ The quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

4. FIELD PROCEDURES

[Note: Field work safety procedures are described in the site "Health and Safety Plan," which is provided as Appendix A.]

4.1 Sample Collection

Sampling Method. Soil samples will be collected using a trowel.

Field Screening. Samples will be visually characterized at the time of collection. The characterization will include visual inspection for soil type and color, water content, and contaminant-related materials.

4.2 Sampling Handling and Identification

4.2.1 Sample Preservation

Containers. Samples will be placed in containers provided by the laboratory. The containers will meet the minimum quality requirements set forth in USEPA "OSWER Directive No. 9240.0-05A, Specifications and Guidance for Contaminant-Free Sample Containers."

Additives. Samples will not require field preservation with chemical additives.

Temperature Control. All samples will be maintained in coolers with ice. Samples will be placed in the coolers as soon as possible after sample collection.

4.2.2 Sample Labels

Samples will be identified by a sticker-label affixed to the container. The information will be recorded in waterproof ink. The information recorded on the label will include:

- Project name
- Sample location identification
- Sample depth
- Date
- Initials of sampler

4.2.3 Sample Packing and Shipping

The following procedures will be used to assure the integrity of sample containers during shipping:

- Careful packing of sample containers in coolers (e.g., use of packing materials).
- Placement of each sample container in an individual plastic baggie to help assure containment, prevention of cross-contamination, and protection of labels.
- Double-bagging of ice to minimize potential for water damage to labels and/or seepage into containers.

4.2.4 Sample Custody

Chain-of-custody will begin as soon as a sample is collected. Once sample labels are placed on sample containers, the containers will be documented on a chain-of-custody form. The laboratory will provide the forms.

4.3 Equipment Decontamination

Decontamination of sampling equipment will be performed in the following steps:

1. Tap water and Alconox wash and scrub.
2. Tap water rinse.
3. Distilled water rinse.
4. Methanol rinse.
5. Distilled water rinse.
6. Thorough air drying.

Decontamination will be performed on site, in an area located away from the sampling activities.

4.4 Investigation-Derived Waste Management

The only investigation-derived waste that will be generated is decontamination water. A small volume of decontamination water will be generated: approximately 0.5 gallon per sample. The decontamination water will be discarded into the soil drums upon completion of sampling activities.

4.5 Documentation

Field documentation will be sufficient to:

- Permit another professional to understand what tasks were performed.
- Identify the procedures, equipment, and materials used in sufficient detail to allow reproducibility of results.
- Identify other evidence, as appropriate, that documents the findings.

Each document will include the following information, at a minimum:

- Project identifier.
- Date and time (as appropriate).
- Location / work area.
- Names of personnel involved.
- Activities performed.
- Equipment used.
- Observations regarding potential contamination.

5. LABORATORY ANALYSIS

5.1 Illinois Data Quality Goals

The analytical data quality goals will be as set forth in the Illinois Environmental Protection Agency (IEPA) "Analytical Quality Assurance Plan" (AQAP) for the Bureau of Land Site Remediation Program. "Level IIIB" data quality requirements will be met. (See **Section 6** for discussion of quality assurance / quality control procedures.)

5.2 Analytical Methods and Detection Limits

Parameters to be analyzed are TCLP organics and TCLP metals, per USEPA SW-846 guidance. The detection limits will be less than or equal to the RCRA regulatory levels, as identified in **Table 3-1**.

6. QUALITY ASSURANCE PROJECT PLAN

Project quality assurance / quality control (QA/QC) will be as set forth in the Illinois Environmental Protection Agency (IEPA) "Analytical Quality Assurance Plan" (AQAP) for the Bureau of Land Site Remediation Program. "Level IIIB" data quality requirements will be met.

Field QA/QC. Field QA/QC will include the collection and/or designation of field blanks, trip blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples.

- One field blank will be collected. The field blank will be analyzed for TCLP organics (volatiles only).
- One trip blank will be included with the sample container shipment. The trip blank will be analyzed for TCLP organics (volatiles only).
- One MS/MSD sample will be specified.

No field duplicate will be collected because only three samples total will be collected.

Laboratory QA/QC. Laboratory QA/QC will be managed by the laboratory. The selected laboratory will be Test America in Bartlett, Illinois. The laboratory will be notified that "Level IIIB" data quality requirements are necessary. QA/QC will include matrix spike/matrix spike duplicate (MS/MSD) samples, which the laboratory will select.

APPENDIX A

HEALTH and SAFETY PLAN

Sheffield Steel
Joliet Facility

Prepared by:
James E. Huff, P.E.
Sarah Monette, P.E.

January 18, 2000

HUFF & HUFF, INC.
ENVIRONMENTAL CONSULTANTS
LaGRANGE, ILLINOIS

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OSHA Training Certificates
Chemical Information
Signature Sheet

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ACRONYMS

BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CFR	Code of Federal Regulations
IDLH	Immediate Danger to Life and Health
MSDS	Material Safety Data Sheet
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PAH	Polynuclear Aromatic Hydrocarbons
PPE	Personal Protective Equipment
ppm	parts per million
STEL	Short Term Exposure Limit
TCLP	Toxicity Characteristic Leaching Procedure
TWA	Time Weighted Average
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. INTRODUCTION

The purpose of this Health and Safety Plan is to define health and safety protocols to be followed during investigation/remediation activities at the Sheffield Steel facility located in Joliet, Illinois.

The work will be performed in areas suspected of containing petroleum residues. The work activities will include removing stained soils, cleaning a concrete pad, and collecting soil and water samples. The work procedures will be as set forth in the two work plans prepared for this site by Huff & Huff, both dated January 2000: "Site Investigation Work Plan, Stained Soil Areas," and "Site Remediation Work Plan, Cleaning of Concrete Pad."

The health and safety protocols established in this plan are based upon the site conditions and chemical hazards known to be present and/or anticipated to be present from the available site data. This plan is intended solely for use during the proposed activities. Specifications herein are subject to review and revisions based upon actual conditions encountered in the field. Before site activities begin, all personnel involved in these activities will have read and understood this plan and all revisions made thereto.

The information presented in this Health and Safety Plan includes:

- The site description
- Personnel responsibilities
- Potential physical and chemical hazards
- Medical surveillance
- Work zones
- Decontamination procedures
- Emergency response
- Site security

2. SITE DESCRIPTION

2.1 Site Location and Layout

The site address is:

Sheffield Steel
Industry Avenue
Joliet, Illinois

Figure 2-1 depicts the site location and Figure 2-2 depicts the site layout, including proposed work areas. The site is located in an area of industrial properties.

2.2 Proposed Work

Surface staining has been identified in three soil areas and on a concrete pad. The soils will be removed from the ground and placed into drums, and the concrete pad will be scrubbed and steam-cleaned, with the cleaning waters wet-vacuumed into drums. Samples will be taken from the soil and water drums. The samples will be analyzed for hazardous waste characteristics: TCLP organics and TCLP metals.

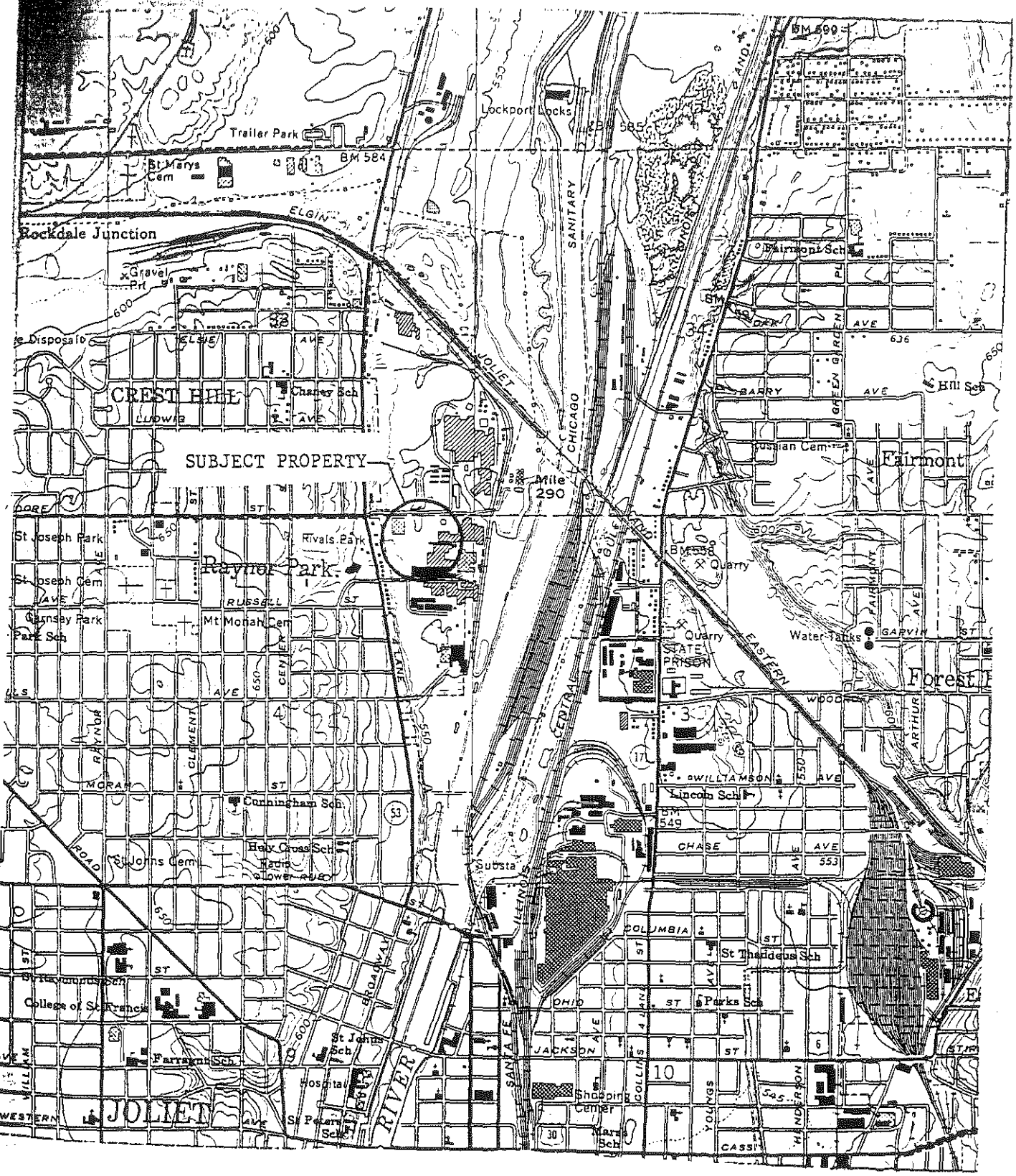


FIGURE 2-1

SITE LOCATION MAP
SHEFFIELD STEEL

NORTH

SCALE: 1" = 2000'

SOURCE: UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY
JOLIET QUADRANGLE

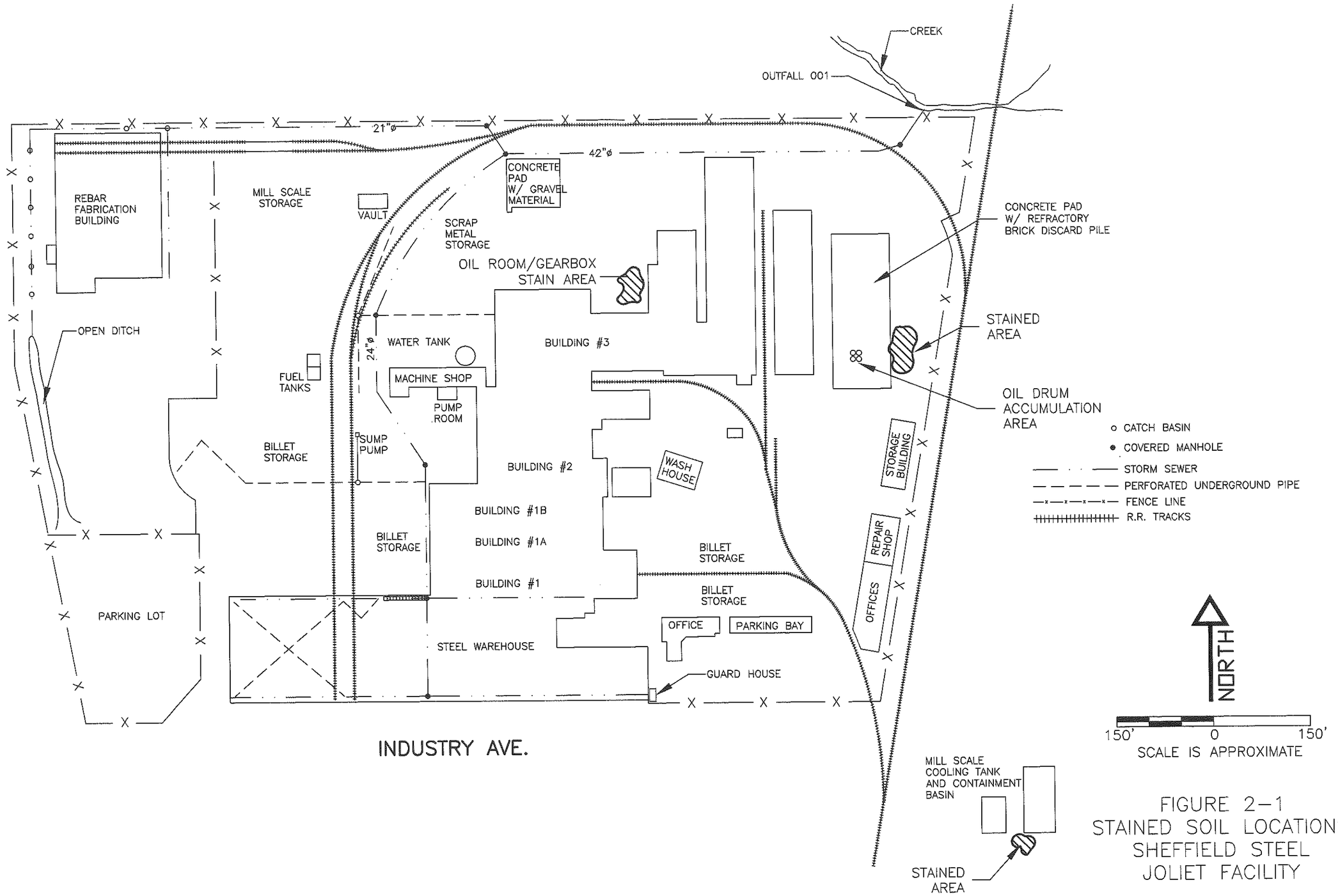


FIGURE 2-1
STAINED SOIL LOCATIONS
SHEFFIELD STEEL
JOLIET FACILITY

CADFILE:SWPPP-1

3. PERSONNEL RESPONSIBILITIES

3.1 Personnel Responsibility Overview

All on-site personnel shall be trained in health and safety issues and will responsible for adhering to the procedures in this Health and Safety Plan. The Huff & Huff Site Health and Safety Manager will have ultimate responsibility for the procedures. Should the Site Health and Safety Manager become incapacitated or absent in any way, the contractor shall be in charge, and shall stop work until the Site Health and Safety Manager is available.

3.2 Personnel Training

All operational personnel shall have participated in routine health and safety education and training programs. These training programs shall have been designed to comply with USEPA and OSHA 29 CFR 1910.120(e) requirements: 40 hours of initial instruction, 8 hours of refresher training, and an additional 8 hours of specialized training for supervisors. At a minimum, the training shall have included the following:

- General Safety Rules
- First Aid/CPR
- Emergency Response Procedures
- Fire Prevention/Protection
- Electrical Hazards
- Basics of Chemistry
- Basics of Toxicology/Physiology
- Hazardous Materials (Types/Characteristics)
- Hazard Communication Information
- Respiratory Protection
- Respirator Training
- Chemical Protective Clothing
- Decontamination Procedures/Personal Hygiene
- Confined Space Work/Safety
- Atmospheric Testing/Sampling Procedures
- Federal and State Regulations

Current training certificates for Huff & Huff personnel are included in the attachments to this plan.

3.3 Site Health and Safety Manager

The Huff & Huff Site Health and Safety Manager will be responsible for the health and safety of personnel on-site, including the contractors. The Manager's specific responsibilities will be:

1. To require that all personnel entering the site read this Health and Safety Plan and acknowledge in writing that they understand the contents of the plan. The sign-off form is provided in the attachments.

2. To assure that the Health and Safety Plan is adhered with.

3. To decide when to change levels of personal protective equipment, and, if necessary, to shut down operations.

Failure to follow guidelines of the Site Health and Safety Manager can be cause for suspension of a worker from the site.

4. PHYSICAL AND CHEMICAL HAZARDS

4.1 Physical Hazards

The potential physical hazards for this site include heavy objects/moving machinery and fire/explosion.

heavy objects / moving machinery
Site activities will include operations involving steam-cleaning equipment and wet-vacuuming equipment.

fire / explosion
The fuels used for the cleaning equipment might present the potential for fire/explosion when exposed to a heat source and source of ignition.

Note: Potential physical hazards are anticipated from cleaning activities only, not from soil removal and sampling activities. The soil staining appears to be limited to the ground surface (top one foot). Therefore, no heavy equipment will be used to transfer the soils into drums, and no underground utilities will be encountered. The soil and water samples will be collected from the drums manually, using trowels and disposable bailers.

The following steps will be taken to avoid potential injury associated with the physical hazards:

1. Modified Level D PPE (Level C minus respirator: steel toes boots, hard hat, latex gloves, and safety glasses) will be worn for all field activities. (Respirators might also be required under certain conditions; see Section 4.2.) No one except the cleaning crew should be within 25 feet of the cleaning machinery while it is in operation. Due caution should be exercised by all personnel on site.

2. During operations, personnel shall act as safety backup to each other and shall provide emergency assistance.

3. Personnel will review standard communications for operating and emergency conditions.

4. NO SMOKING will be permitted anywhere within 25 feet of sampling activities.

5. All electrical equipment (power tools, extension cords, instruments, radios, etc.) shall be in conformance with OSHA 29 CFR 1926.400 Subpart K.

4.2 Chemical Hazards

The potential chemical hazards at the site are related to exposure to the chemical contaminants in the soil and water. The primary contaminants anticipated to be present at the site are petroleum constituents: BTEX and PAHs. Potential routes of exposure are dermal adsorption, ingestion, and inhalation.

The following steps will be taken to avoid potential injury associated with chemical hazards:

1. Modified Level D PPE (Level C minus respirator: steel toed boots, hard hat, gloves, and safety glasses) will be worn for all field activities. Upgrade to Level C (respirator) might be required based upon site atmospheric conditions (see Item 8 below).

2. Work areas for various operational activities will be established. Entrance and exit locations will be designated and emergency escape routes delineated. (Work zones are discussed in Section 6.)

3. Personnel should wash their hands and face before leaving the site.

4. Eating, drinking, chewing gum or tobacco, smoking, or any other practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited in any work area.

5. Medicine and alcohol can increase the effects from exposure to toxic chemicals. Prescribed drugs should not be taken by personnel where the potential for adsorption, inhalation, or ingestion of toxic substances exists, unless specifically approved by a qualified physician. Alcoholic beverage intake must be avoided.

6. Contact with contaminated or suspected contaminated surfaces should be avoided. Personnel should avoid walking through puddles, leachate, and discolored surfaces whenever possible. Personnel should not kneel on the ground, lean, sit, or place equipment on drums, containers, or contaminated areas of the ground.

7. Contact lenses should not be worn when the hazard of a splash exists.

8. Site atmospheric conditions will be monitored during any subsurface activities. Benzene concentrations and dust will be used as indicator parameters for determining the level of respiratory/ingestion protection. These parameters will be monitored in two ways: (a) PID meter and (b) visual observation.

   8a. PID Meter. On a toxicological basis, benzene is the petroleum constituent of greatest concern. The MSDS for benzene is included in the attachments to this plan. The TWA is 1 ppm (15 min) and the STEL is 5 ppm (15 min). A 10.2 eV PID or a 10.6 eV PID

will be calibrated to read the VOC concentration in a sample or in the atmosphere as benzene. If the average PIDs level is greater than 1 ppm above background in the breathing zone, then the level of respiratory protection will be upgraded from Level D (none) to Level C (air-purifying respirators with combination dust/organic vapor removal cartridges). PIDs will be used a minimum of once at every location to monitor the breathing zone.

8b. Visual Observation. If airborne dust is observed, then the level of respiratory/ingestion protection will be upgraded from Level D (none) to Level C (air purifying respirators with combination dust/organic vapor removal cartridges.)

In the case that upgrade to Level C PPE is required, all personnel shall have air-purifying respirators available with combination dust/organic vapor cartridges. The following protocol apply to the use of respirators:

- Respirators shall be clean and disinfected after each day's use, or more often if necessary.
- Before donning, respirators will be inspected for worn or deteriorated parts.
- Personnel must use the buddy system when wearing respiratory protection equipment.
- No facial hair, which interferes with a satisfactory fit of the mask-to-face-seal, is allowed.
- Contact lenses shall not be worn when respirator protection is required.

5. MEDICAL FITNESS / PPE

5.1 Medical Fitness

Huff & Huff personnel participate in a medical program that includes a physical examination once every two years. The program adheres to the requirements of 29 CFR 1910.120(f). The physical examination includes blood, urinalysis, cardio-pulmonary, hearing, and vision tests, as well as a respiratory examination to determine physical fitness to wear respiratory equipment. Personnel are mailed a copy of the record following the examination and have been made aware that the medical records are accessible.

Contractors' medical programs must be similar to Huff & Huff's medical program.

5.2 Personal Protective Equipment

PPE is a very important consideration in any site investigation that involves or may involve hazardous working conditions. As stated in Section 4.2, given the preliminary information concerning the site, modified Level D protection (Level C minus respirator) will be implemented. Respirators with combination dust/organic vapor cartridges will be required whenever the average breathing zone PID reading is 1 ppm or more above background levels.

The Site Health and Safety Manager will decide on appropriate PPE to be worn and he/she will have the discretionary power to upgrade personal protection as appropriate. For example, under muddy conditions, the Site Health and Safety Manager may require disposable boot covers and Tyvek coveralls to be worn. Failure to wear PPE required by the Site Health and Safety Manager can be cause for suspension of a worker from the site.

The following PPE will be available to all on-site personnel:

- hard hat
- safety boots (steel toe)
- gloves (inner and outer)
- clean work clothes (company issued and cleaned)
- full-face or partial-face respirators with combination dust/organic vapor cartridges
- disposable boot covers
- protective (Tyvek) coveralls

6. WORK ZONES

The Site Health and Safety Manager will establish work zones in the event that levels monitored during the work procedures exceed the breathing zone action levels as defined in Section 4.2. The work zones will include an "exclusion zone" in the area where the hazard is present, a "transition zone" where decontamination will take place, and a "support zone" which will be in an area free of hazard. Only protected personnel will be allowed in the hot zone and transition zone; all other personnel will remain in the support zone.

7. DECONTAMINATION PROCEDURES

(Note: Special decontamination procedures to be implemented during medical emergencies are discussed in Section 8, Emergency Response.)

7.1 Personal Protective Equipment Decontamination

Decontamination of PPE will be performed on site in an area designated as a "transition zone." Decontamination will be performed in the following steps:

1. Remove boots and clean, removing any soil or debris.
2. Remove hard hat and clean, removing soil and debris.
3. Remove outer gloves, garments, and tape and place in plastic garbage bag for proper disposal.
4. Remove work clothes and send to commercial/industrial laundry service.
5. Remove inner gloves and place in plastic garbage bag for proper disposal.
6. Remove respirator cartridges and place in plastic garbage bag for proper disposal.
7. Remove respirator and place in bag for proper cleaning and storing.
8. The face and hands should be washed thoroughly as soon as possible after the PPE is removed.

7.2 Sampling Equipment Decontamination

Decontamination of sampling equipment will be performed on site in an area designated as a "transition zone." Decontamination will be performed in the following steps:

1. Tap water and Alconox wash and scrub.
2. Tap water rinse.
3. Distilled water rinse.
4. Methanol rinse.
5. Distilled water rinse.
6. Thorough air drying.

7.3 Heavy Equipment Decontamination

The only heavy equipment used on site will be the steam-cleaning/wet-vacuuming equipment. Based upon its use as cleaning equipment, its decontamination will be performed as part of the cleaning process.

8. EMERGENCY RESPONSE

8.1 Emergency Contacts

The following phone numbers may be of assistance during a site emergency.

Ambulance	911
Joliet Fire Department	911
Joliet Police Department	911
St. Joseph Medical Center	911
Huff & Huff, Inc.	(708) 579-5940

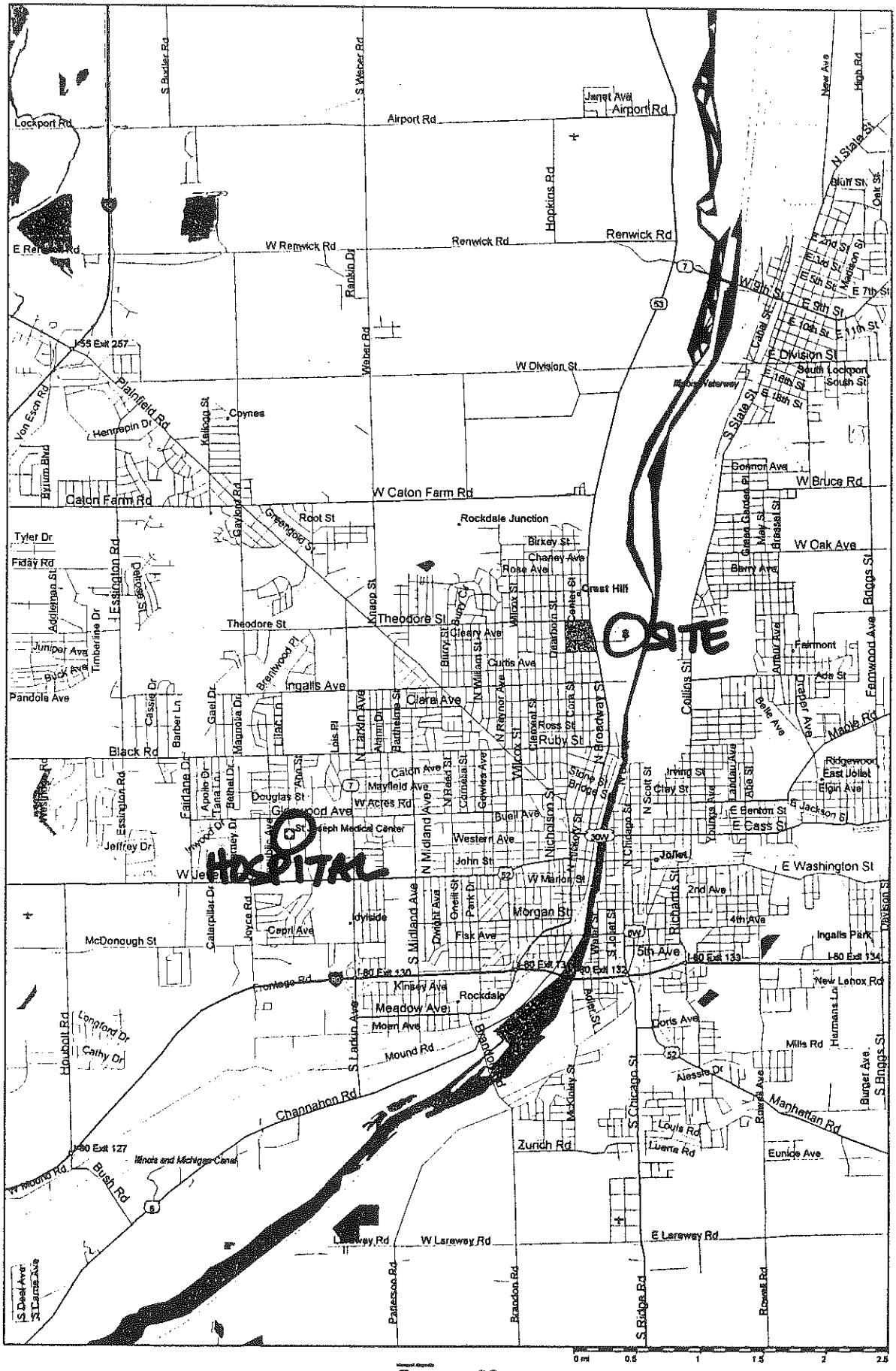
8.2 Hospital Location

In the event it becomes necessary to transport a victim to the hospital, a map with directions to the St. Joseph Medical Center is provided as Figure 8-1.

The directions to the hospital are as follows:

Exit the property onto Industry Ave. heading right (west).
Turn right (north) onto Route 53 (Broadway St.).
Follow Route 53 (Broadway St.) to Route 7 (Theodore St.).
Turn left (west) onto Route 7 (Theodore St.).
Follow Route 7 to where it turns south (Larkin Ave.).
Turn left (south) onto Route 7 (Larkin Ave.).
Follow Route 7 (Larkin Ave.) to Glenwood Ave.
Turn right (west) onto Glenwood Ave.
The St. Joseph Medical Center is located on south (left) side of Glenwood Ave.

FIGURE 8-1
HOSPITAL LOCATION MAP



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8.3 Medical Records Access

Personal medical records for Huff & Huff personnel may be obtained from:

Occupational Health Services
Executive Clinic
222 East Ogden Avenue
Hinsdale, IL 60521
Phone: (630) 887-6133
Emergency Phone: (630) 887-6133

8.4 Emergency Care

At least one first aid kit will be available on-site for minor medical care. For major medical care, emergency medical care procedures must be implemented. Heat related emergencies and chemical exposure emergencies are two of the more common major medical problems encountered during environmental investigation activities. The requirements of the first aid kit and the symptoms of the heat and chemical related emergencies are provided below, along with emergency care procedures. The procedures discussed are only guidelines: actual training in emergency medical care or basic first aid is recommended.

8.4.1 First Aid Kit

First aid kits that meet the requirements of 29 CFR 1926.50 will be accessible to all personnel associated with this project. The first aid kits will consist of waterproof containers with individual sealed packages for each care item. The contents will be checked before being brought to the job site.

8.4.2 Heat Related Emergencies

Heat exposure becomes dangerous when the body can no longer regulate its core temperature. Heat related illnesses include heat rash, heat cramps, heat exhaustion, and heat stroke. These illnesses may occur in sequence, beginning with heat rash and progressing into a more severe illness, such

as heat stroke. Alternatively, heat stroke may occur with no precursor. It is important always to remember that heat stroke can cause irreversible damage or death if not treated promptly.

Heat Rash affects the skin and feels like prickly heat.

Signs and Symptoms:
1. Skin Rash
2. Tingling or prickling sensation on the skin.

Emergency Care:
1. Shower
2. Dry Skin Thoroughly
3. Change undergarments as needed
4. Stay in a cool place
5. Avoid repeated heat exposure.

Heat Cramps are muscle pains, usually in lower extremities, the abdomen, or both.

Signs and Symptoms:
1. Cramps in lower extremities or abdomen. The cramps occur suddenly and commonly are incapacitating and cause intense pain, though some cramps can be mild.
2. Increased respiratory rate.
3. Increased pulse rate.
4. Pale and moist skin.
5. Normal body temperature.
6. Loss of consciousness.
7. Generalized weakness.

Emergency Care:
1. Remove outer, protective garments to allow the victim to cool down. Move the victim to a cool environment; lay victim down if feels faint.

2a. If the person is not nauseated, give 1 or 2 glasses of water or an electrolyte solution. Have the person drink slowly. The use of salt tablets is not recommended, as they may precipitate nausea.

2b. If the person is nauseated, avoid giving anything by mouth until the nausea subsides.

3. Avoid massaging the cramping muscles. This rarely helps and may actually aggravate the pain.
4. Sponge the person with cool water. If you fan the person, avoid chilling: when the body chills, the muscles generate energy; when the body shivers, this energy is released in the form of heat and actually can increase the body temperature.
5. As salt and water levels are replenished, the pain will subside. A return to work is NOT recommended for a period of at least 12 hours. Further exertion may lead to heat exhaustion or heat stroke.

Heat Exhaustion is a more severe response to loss of salt and water.

Signs and Symptoms:

1. Heat exhaustion may come on suddenly and cause collapse, or may be present with a headache, fatigue, dizziness, and nausea with occasional abdominal cramping.
2. Profuse sweating.
3. Rapid and weak pulse rate.
4. Rapid and shallow respiration rate.
5. Pale and clammy skin.
6. Normal or decreased body temperature.
7. Irritability and restlessness.

Emergency Care:

1. Move the person to a cool environment, take off as much clothing as possible, place in a supine position with legs elevated.
2. Sponge the person with cool water. If you fan the person, avoid chilling: when the body chills, the muscles generate energy; when the body shivers, this energy is released in the form of heat and actually can increase the body temperature.
3. Monitor the person's level of consciousness and airway.
4. If the victim does not feel better, at this point, consider this a medical emergency and seek prompt intervention by emergency medical services.

Heat Stroke is caused by a severe disturbance in the body's heat-regulating mechanism and is a profound emergency, with a mortality rate ranging from 25 to 50 percent. It is most common in men over 40, especially in alcoholics. It can also occur in people of any age having too much exposure to the sun or prolonged confinement in a hot atmosphere. Heat stroke comes on suddenly. As the sweating mechanism fails, the body temperature begins to rise precipitously, reaching 106°F (41°C) or higher within 10 to 15 minutes. If the situation is not corrected rapidly, the body cells, especially the cells of the brain, are literally cooked, and irreversible central nervous system damage occurs.

Signs and Symptoms:

1. Strong and bounding pulse rate.
2. Hot, dry and flushed skin.
3. Potential headache, dizziness, and dryness of mouth.
4. Seizures and coma.
5. Potential loss of consciousness and airway maintenance problems.

Emergency Care:

1. Speed is essential: delay may result in permanent brain damage.
2. Establish an open airway.
3. Move the person to a cool environment. Take off as much clothing as possible, place in a semi-reclining position with the head elevated.
4. Use any means possible to cool the person. Improvise with whatever is available, such as a tub filled with cold water and ice cubes. Vigorous efforts to cool the worker must continue until the body is below 102°F (38.9°C).
5. If the victim is conscious, give water or electrolyte solution. Have the person drink slowly.

6. This is a medical emergency. Seek prompt intervention by emergency medical services.

8.4.3 Chemical Exposure Emergencies

Chemical exposure symptoms vary depending upon the chemical of concern. Based the anticipated hazards at this site, the primary chemical of concern will be benzene. The MSDS for benzene is provided in the attachments.

In the event of chemical exposure, the following general measures should be taken:

1. Contact the Site Health and Safety Manager immediately.
2. For inhaled contaminants, seek immediate medical attention.
3. For contamination of the skin and eyes, use water to flush the affected area.
4. Wash splashes off protective clothing as rapidly as possible and remove the clothing carefully.

8.5 Decontamination During Medical Emergencies

Decontamination procedures for injured personnel are an important medical consideration. Improper decontamination may aggravate or cause more serious health effects. In the event of minor physical problems or injuries, e.g., sprained ankle, cuts, etc., normal decontamination procedures should be followed. However, in the event that a life-threatening situation occurs, decontamination procedures will be omitted and prompt life-saving first aid and medical attention will be administered.

Special decontamination procedures to be followed during the response to a life-threatening physical injury include:

1. Contact the Site Health and Safety Manager immediately.
2. Remove outer garments (depending on the weather) if they do not cause delays, interfere with treatment, or aggravate the problem. Full-encapsulating and chemical resistant suits can be cut away.

3. If the outer contaminated garments cannot safely be removed, wrap the individual in plastic, rubber, or blankets to help prevent contaminating the inside of ambulances and medical personnel.

4. No attempt should be made to wash or rinse the victim at the site. The one exception to this is if it is known that the individual has been contaminated with an extremely toxic or corrosive material which could also cause severe injury or loss of life.

9. SITE SECURITY

Personnel entering the work area shall be required to read this Health and Safety Plan and familiarize themselves with the site conditions. Unauthorized personnel will not be allowed access to the work area. At the end of the work day, the Site Health and Safety Manager is to ensure the work area has been secured, including the backfilling of all boreholes.

ATTACHMENTS

CERTIFICATE OF COMPLETION

Presented to

Sarah Monette

In Recognition of Having Successfully Completed
Hazardous Waste Operations and Emergency Response
Refresher Training under 29 CFR 1910.120(e)(8)

November 17, 1999

Huff & Huff, Inc.

PRINTED IN USA

BENZENE

BNZ

Common Synonyms	Watery liquid	Colorless	Gasoline-like odor
Benzol Benzole	Floats on water. Flammable, irritating vapor is produced. Freezing point is 42°F.		

Avoid contact with liquid and vapor. Keep people away.
Wear goggles and self-contained breathing apparatus.
Shut off ignition sources and call fire department.
Stop discharge if possible.
Stay upwind and use water spray to "knock down" vapor.
Isolate and remove discharged material.
Notify local health and pollution control agencies.

Fire	FLAMMABLE. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Wear goggles and self-contained breathing apparatus. Extinguish with dry chemical, foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.
Exposure	CALL FOR MEDICAL AID. VAPOR Irritating to eyes, nose and throat. If inhaled, will cause headache, difficult breathing, or loss of consciousness. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)

Issue warning-high flammability
Restrict access

2. LABEL

2.1 **Category:** Flammable liquid
2.2 **Class:** 3

3. CHEMICAL DESIGNATIONS

3.1 **CG Compatibility Class:** Aromatic Hydrocarbon
3.2 **Formula:** C_6H_6
3.3 **IMO/UN Designation:** 3.2/1114
3.4 **DOT ID No.:** 1114
3.5 **CAS Registry No.:** 71-43-2

4. OBSERVABLE CHARACTERISTICS

4.1 **Physical State (as shipped):** Liquid
4.2 **Color:** Colorless
4.3 **Odor:** Aromatic; rather pleasant aromatic odor; characteristic odor

5. HEALTH HAZARDS

5.1 **Personal Protective Equipment:** Hydrocarbon vapor canister, supplied air or a hose mask; hydrocarbon-insoluble rubber or plastic gloves; chemical goggles or face splash shield; hydrocarbon-insoluble apron such as neoprene.
5.2 **Symptoms Following Exposure:** Dizziness, excitation, pallor, followed by flushing, weakness, headache, breathlessness, chest constriction. Coma and possible death.
5.3 **Treatment of Exposure:** SKIN: flush with water followed by soap and water; remove contaminated clothing and wash skin. EYES: flush with plenty of water until irritation subsides. INHALATION: remove from exposure immediately. Call a physician. IF breathing is irregular or stopped, start resuscitation, administer oxygen.
5.4 **Threshold Limit Value:** 10 ppm
5.5 **Short Term Inhalation Limits:** 75 ppm for 30 min.
5.6 **Toxicity by Ingestion:** Grade 3; LD_{50} = 50 to 500 mg/kg
5.7 **Late Toxicity:** Leukemia
5.8 **Vapor (Gas) Irritant Characteristics:** If present in high concentrations, vapors may cause irritation of eyes or respiratory system. The effect is temporary.
5.9 **Liquid or Solid Irritant Characteristics:** Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin.
5.10 **Odor Threshold:** 4.68 ppm
5.11 **IDLH Value:** 2,000 ppm

6. FIRE HAZARDS

6.1 **Flash Point:** 12°F C.C.
6.2 **Flammable Limits in Air:** 1.3%-7.9%
6.3 **Fire Extinguishing Agents:** Dry chemical, foam, or carbon dioxide
6.4 **Fire Extinguishing Agents Not to be Used:** Water may be ineffective
6.5 **Special Hazards of Combustion Products:** Not pertinent
6.6 **Behavior in Fire:** Vapor is heavier than air and may travel considerable distance to a source of ignition and flash back
6.7 **Ignition Temperature:** 1097°F
6.8 **Electrical Hazard:** Class I, Group D
6.9 **Burning Rate:** 6.0 mm/min.
6.10 **Adiabatic Flame Temperature:** Data not available
6.11 **Stoichiometric Air to Fuel Ratio:** Data not available
6.12 **Flame Temperature:** Data not available

7. CHEMICAL REACTIVITY

7.1 **Reactivity With Water:** No reaction
7.2 **Reactivity with Common Materials:** No reaction
7.3 **Stability During Transport:** Stable
7.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent
7.5 **Polymerization:** Not pertinent
7.6 **Inhibitor of Polymerization:** Not pertinent
7.7 **Molar Ratio (Reactant to Product):** Data not available
7.8 **Reactivity Group:** 32

8. WATER POLLUTION

8.1 **Aquatic Toxicity:**
5 ppm/6 hr/minnow/lethal/distilled water
20 ppm/24 hr/sunfish/TL_m/tap water
8.2 **Waterfowl Toxicity:** Data not available
8.3 **Biological Oxygen Demand (BOD):** 1.2 lb/lb, 10 days
8.4 **Food Chain Concentration Potential:** None

9. SHIPPING INFORMATION

9.1 **Grades of Purity:**
Industrial pure .....99+%
Thiophene-free .....99+%
Nitration .....99+%
Industrial 90% .....85+%
Reagent ..... 99+%
9.2 **Storage Temperature:** Open
9.3 **Inert Atmosphere:** No requirement
9.4 **Venting:** Pressure-vacuum

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)

A-T-U-V-W

11. HAZARD CLASSIFICATIONS

11.1 **Code of Federal Regulations:** Flammable liquid
11.2 **NAS Hazard Rating for Bulk Water Transportation:**

Category	Rating
Fire	3
Health	
Vapor Irritant	1
Liquid or Solid Irritant	1
Poisons	3
Water Pollution	
Human Toxicity	3
Aquatic Toxicity	1
Aesthetic Effect	3
Reactivity	
Other Chemicals	2
Water	1
Self Reaction	0

11.3 **NFPA Hazard Classification:**

Category	Classification
Health Hazard (Blue)	2
Flammability (Red)	3
Reactivity (Yellow)	0

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 **Physical State at 15°C and 1 atm:** Liquid
12.2 **Molecular Weight:** 78.11
12.3 **Boiling Point at 1 atm:** 176°F = 80.1°C = 353.3°K
12.4 **Freezing Point:** 42.0°F = 5.5°C = 278.7°K
12.5 **Critical Temperature:** 552.0°F = 288.9°C = 562.1°K
12.6 **Critical Pressure:** 710 psia = 48.3 atm = 4.89 MN/m²
12.7 **Specific Gravity:** 0.879 at 20°C (liquid)
12.8 **Liquid Surface Tension:** 28.9 dynes/cm = 0.0289 N/m at 20°C
12.9 **Liquid Water Interfacial Tension:** 35.0 dynes/cm = 0.035 N/m at 20°C
12.10 **Vapor (Gas) Specific Gravity:** 2.7
12.11 **Ratio of Specific Heats of Vapor (Gas):** 1.061
12.12 **Latent Heat of Vaporization:** 169 Btu/lb = 94.1 cal/g = 3.94 X 10⁵ J/kg
12.13 **Heat of Combustion:** −17,480 Btu/lb = −9698 cal/g = −406.0 X 10⁵ J/kg
12.14 **Heat of Decomposition:** Not pertinent
12.15 **Heat of Solution:** Not pertinent
12.16 **Heat of Polymerization:** Not pertinent
12.25 **Heat of Fusion:** 30.45 cal/g
12.26 **Limiting Value:** Data not available
12.27 **Reid Vapor Pressure:** 3.22 psia

NOTES

BNZ	BENZENE

12.17 SATURATED LIQUID DENSITY	
Temperature (degrees F)	Pounds per cubic foot
55	55.330
60	55.140
65	54.960
70	54.770
75	54.580
80	54.400
85	54.210
90	54.030
95	53.840
100	53.660
105	53.470
110	53.290
115	53.100
120	52.920
125	52.730
130	52.540
135	52.360
140	52.170
145	51.990
150	51.800
155	51.620
160	51.430
165	51.250
170	51.060
175	50.870

12.18 LIQUID HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
45	.394
50	.396
55	.398
60	.400
65	.403
70	.405
75	.407
80	.409
85	.411
90	.414
95	.416
100	.418

12.19 LIQUID THERMAL CONDUCTIVITY	
Temperature (degrees F)	British thermal unit-inch per hour-square foot-F
75	.988
80	.981
85	.975
90	.969
95	.962
100	.956
105	.950
110	.944
115	.937
120	.931
125	.925
130	.919
135	.912
140	.906
145	.900
150	.893
155	.887
160	.881
165	.875
170	.868

12.20 LIQUID VISCOSITY	
Temperature (degrees F)	Centipoise
55	.724
60	.693
65	.665
70	.638
75	.612
80	.588
85	.566
90	.544
95	.524
100	.505
105	.487
110	.470
115	.453
120	.438

12.21 SOLUBILITY IN WATER	
Temperature (degrees F)	Pounds per 100 pounds of water
77.02	.180

12.22 SATURATED VAPOR PRESSURE	
Temperature (degrees F)	Pounds per square inch
50	.881
60	1.171
70	1.535
80	1.989
90	2.547
100	3.227
110	4.049
120	5.033
130	6.201
140	7.577
150	9.187
160	11.060
170	13.220
180	15.700
190	18.520
200	21.740
210	25.360

12.23 SATURATED VAPOR DENSITY	
Temperature (degrees F)	Pounds per cubic foot
50	.01258
60	.01639
70	.02109
80	.02681
90	.03371
100	.04196
110	.05172
120	.06317
130	.07652
140	.09194
150	.10960
160	.12980
170	.15270
180	.17850
190	.20750
200	.23970
210	.27560

12.24 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
0	.204
25	.219
50	.234
75	.248
100	.261
125	.275
150	.288
175	.301
200	.313
225	.325
250	.337
275	.349
300	.360
325	.371
350	.381
375	.392
400	.402
425	.412
450	.421
475	.431
500	.440
525	.449
550	.457
575	.465
600	.474

SIGNATURE PAGE

HEALTH AND SAFETY PLAN
APPROVAL SIGN-OFF

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety Briefing.

Name	Signature	Date

SOIL BORING INVESTIGATION
PERFORMED FOR
SHEFFIELD STEEL CORPORATION
JOLIET, ILLINOIS
JULY 14, 1988

MOSTARDI-PLATT
ASSOCIATES, INC.
Environmental Contract
Engineering Services

MOSTARDI-PLATT ASSOCIATES, INC.
Environmental Contract Engineering Services
1077 Entry Drive
Bensenville, IL 60106
(312) 860-5900

SOIL BORING INVESTIGATION
PERFORMED FOR
SHEFFIELD STEEL CORPORATION
JOLIET, ILLINOIS
JULY 14, 1988

PROJECT NO. 81009

81009.ss (11f)

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APPENDIX

Joliet City Map
Boring Location Plan
Boring Logs

SOIL BORING INVESTIGATION
PERFORMED FOR
SHEFFIELD STEEL CORPORATION
JOLIET, ILLINOIS
JULY 14, 1988

1.0 INTRODUCTION

MOSTARDI-PLATT ASSOCIATES, INC., (MPA), was retained by SHEFFIELD STEEL CORPORATION to obtain soil boring samples and perform laboratory analysis on the samples collected to determine the presence of petroleum hydrocarbons in the form of gasoline and diesel fuels. The soil borings were to be performed in the vicinity of the two existing underground storage tanks (UST's) located on the premises of Sheffield Steel Corporation's Joliet Steel Mill in Joliet, Illinois. The purpose of the soil boring investigation was to obtain information that would assist in evaluating possible contamination of the soils surrounding two old UST's that were removed and replaced in 1986. MPA understands that the UST's were used to store gasoline and diesel fuels for use by Sheffield Steel.

2.0 SOIL BORING INVESTIGATION

2.1 Soil Sampling Procedures

Three soil borings were drilled in the vicinity of the two existing UST's on June 9, 1988 under the supervision of Mr. Lawrence Fieber, Geologist. The borings were drilled to a depth sufficient to penetrate the groundwater surface. Soil samples were collected continuously utilizing hand auger sampling

methods. All samples collected were placed in clean glass containers and immediately sealed with aluminum foil and tightly closed with a plastic screw-on closure. Samples to be analyzed were placed in 40 ml borosilicate septa vials with teflon lined closures and tightly sealed. All collected samples were then stored in ice awaiting transmittal to Arro Laboratories for analytical testing. A field drilling log of soil conditions encountered during drilling procedures was maintained by the supervising geologist. Copies of these drilling logs are appended in this report.

Prior to drilling and sampling procedures all equipment was decontaminated utilizing a soap and water cleanup, acetone rinse, and a distilled water rinse. Decontamination using these methods prevents the possibility of cross contamination from one boring location to another.

2.2 Water Sampling Procedures

Water samples were collected after boring completion by allowing groundwater to flow freely into the open borehole. Groundwater was then sampled using a decontaminated stainless steel bailing apparatus. In this method, the bailing apparatus is lowered into the borehole from the surface allowing groundwater to flow into the sampling bailer where it is held by a check valve until drained into the specified water sample container at the surface. Collected water samples were placed in

clean glass containers, sealed with aluminum foil and tightly closed with a plastic screw-on closure.

2.3 Onsite Physical Analysis

Samples collected during the soil boring investigation were inspected to determine soil type, color, odor, and appearance. Soil samples were classified in accordance with the Unified Soil Classification System as per American Society for Testing and Materials (ASTM) guidelines. The soil description on the drilling logs are in conformance with this classification system. The specific soil conditions encountered at the individual boring locations during the soil investigation are described in the drilling logs appended in this report.

Soils sampled at the property exhibited normal colors, odors, and appearance. No physical evidence of fuel oil or abnormal staining was observed in the soil or groundwater during the investigation.

2.4 Laboratory Analysis

A laboratory analysis was performed on one sample representing soil at the groundwater level from each of the three soil borings. The purpose of the laboratory analysis was to determine the concentrations of common hydrocarbon constituents in the soil. The specific constituents analyzed included benzene, toluene, xylene, and n-hexane. Analysis was performed utilizing gas chromatographic methods.

LABORATORY ANALYSIS RESULTS

Concentrations in Parts Per Million

Boring Number	Sample Number	Benzene Concentration	Toluene Concentration	Xylene Concentration	N-Hexane Concentration
B-1	3	<0.1	<0.5	<0.5	<0.5
B-2	3	<0.1	<0.5	<0.5	<0.5
B-3	3	<0.1	<0.5	<0.5	<0.5

3.0 REGULATORY REVIEW

Mr. Terry Ayers of the Illinois Environmental Protection Agency indicated that his office has established guidelines for requiring remedial action on leaking underground storage tanks containing petroleum hydrocarbons. These guidelines are known as Action Level concentrations and are specified with respect to the common hydrocarbon constituents known as benzene, toluene, xylene, and n-hexane. Illinois Environmental Protection Agency Action Level concentrations of these constituents are listed below:

Constituent	IEPA Action Level Concentration
Benzene	0.1 ppm
Toluene	40.0 ppm
Xylene	88.0 ppm
N-Hexane	88.0 ppm

ppm = Parts Per Million

4.0 DISCUSSION OF RESULTS

The three soil borings taken during this investigation indicate that the water flow direction in the vicinity of the UST's is to the northeast. Laboratory analysis performed on soil samples representative of the groundwater surface indicate that the concentrations encountered have no apparent relationship to the direction of the groundwater flow. One can assume that the highest concentrations of hydrocarbons would be found in soils at the groundwater surface due to the ability of most petroleum hydrocarbons to float on water.

The concentrations of benzene, toluene, xylene, and n-hexane in all soils analyzed were well below the Action Level concentrations set forth by the Illinois Environmental Protection Agency for a petroleum hydrocarbon release.

5.0 CONCLUSIONS

Based on the information obtained from the soil boring investigation and laboratory analysis, the following conclusions are set forth:

1) Groundwater flow in the vicinity of the subject UST's appears to be toward the northeast.

2) Concentrations of benzene, toluene, xylene, and n-hexane are well below the action levels set forth by the Illinois EPA for hydrocarbon releases.

3) The absence of gross physical evidence in the form of abnormal color, odor, and appearance indicates the lack of a significant concentration of hydrocarbons in the soil.

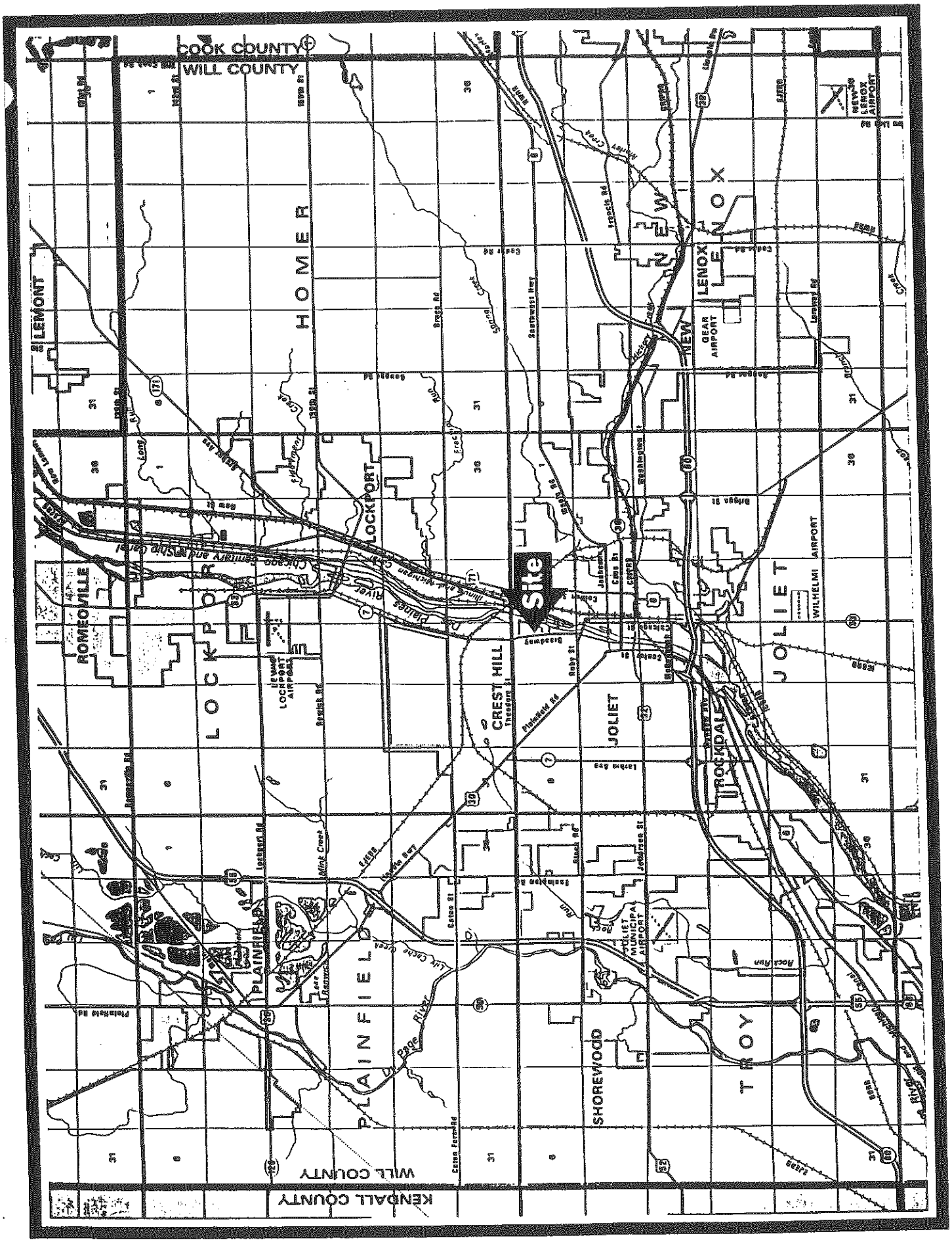
Respectfully submitted,

MOSTARDI-PLATT ASSOCIATES, INC.

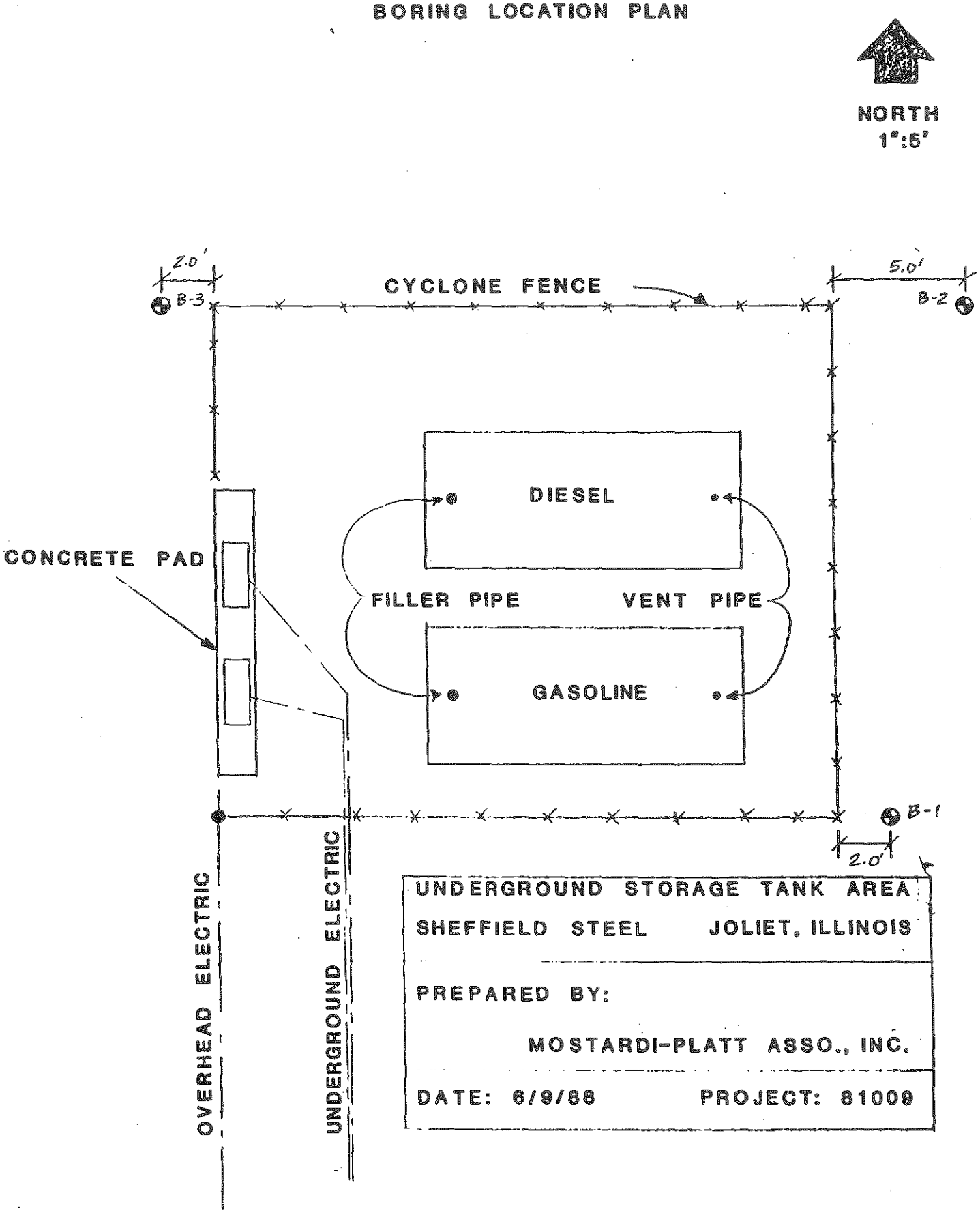
Lawrence L. Fieber
Geologist

APPENDIX

JOLIET CITY MAP



BORING LOCATION PLAN



UNDERGROUND STORAGE TANK AREA
SHEFFIELD STEEL JOLIET, ILLINOIS

PREPARED BY:

MOSTARDI-PLATT ASSO., INC.

DATE: 6/9/88 PROJECT: 81009

Hole No. B-1

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS

1. PROJECT: SHEFFIELD STEEL, JOLIET, IL.	10. SIZE AND TYPE OF BIT: 2" OD SPLIT SPOON
2. LOCATION (Coordinates or Station): 2.0' EAST OF SE/C FENCE	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NE/C CONCRETE PUMP PAD = 100.00'
3. DRILLING AGENCY: MOSTARDI-PLATT ASSO., INC	12. MANUFACTURER'S DESIGNATION OF DRILL: ACKER HAND AUGER
4. HOLE NO. (As shown on drawing title and file number): B-1	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER: L. FIEBER / C. TREZAK	14. TOTAL NUMBER CORE BOXES: 1
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: 95.45'
	16. DATE HOLE: STARTED 6-9-88; COMPLETED 6-9-88
7. THICKNESS OF OVERBURDEN: —	17. ELEVATION TOP OF HOLE: 99.36'
8. DEPTH DRILLED INTO ROCK: —	18. TOTAL CORE RECOVERY FOR BORING: 100 %
9. TOTAL DEPTH OF HOLE: 5.0'	19. SIGNATURE OF INSPECTOR: Lawrence Louis Stefan

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		FILL: BROWN PEA GRAVEL		1	WATER LEVEL
	1.0					
	2.0					
	3.0		DARK BROWN ORGANIC CLAY (ORIGINAL TOPSOIL)		2	
	4.0					▼ 3 HR. ABANDONED
	5.0	SM	BROWN SILTY SAND (SATURATED)		3	
			END OF BORING @ 5.0'			

SURFACE 1.0 2.0 3.0 4.0 5.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT 81009 HOLE NO. B-1

Hole No. B-2

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS

1. PROJECT: SHEFFIELD STEEL, JOLIET, IL
2. LOCATION (Coordinates or Station): 50' EAST OF NE/C FENCE
3. DRILLING AGENCY: MOSTARDI-PLATT ASSO. INC.
4. HOLE NO. (As shown on drawing title and file number): B-2
5. NAME OF DRILLER: L. FIEBER / C. TREZAK
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: —
8. DEPTH DRILLED INTO ROCK: —
9. TOTAL DEPTH OF HOLE: 5.0'
10. SIZE AND TYPE OF BIT: 2" OD SPLIT SPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NE/C CONCRETE PUMP PAD = 100.00'
12. MANUFACTURER'S DESIGNATION OF DRILL: ACKER HAND AUGER
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 1
15. ELEVATION GROUND WATER: 95.35'
16. DATE HOLE: STARTED 6-9-88; COMPLETED 6-9-88
17. ELEVATION TOP OF HOLE: 99.04
18. TOTAL CORE RECOVERY FOR BORING: 100 %
19. SIGNATURE OF INSPECTOR: Lawrence Louis Gnd

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		FILL: MIXED BROWN CLAY AND PEA GRAVEL.		1	WATER LEVEL
	1.0					
	2.0					
	3.0		DARK BROWN ORGANIC CLAY (ORIGINAL TOPSOIL)		2	▼ 2 HR. ABANDONED
	4.0					
	5.0	SM	BROWN SILTY SAND (SATURATED)		3	
			END OF BORING @ 5.0'			

SURFACE 1.0 2.0 3.0 4.0 5.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT 81009 HOLE NO. B-2

Hole No. B-3

DRILLING LOG	DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS

1. PROJECT: SHEFFIEL STEEL, JOLIET, IL	10. SIZE AND TYPE OF BIT: 2" OD SPLIT SPOON
2. LOCATION (Coordinates or Station): 2.0' WEST OF NW/C FENCE	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NE/C CONCRETE PUMP PAD = 100.00
3. DRILLING AGENCY: MISTARDI-PLATT ASSO., INC.	12. MANUFACTURER'S DESIGNATION OF DRILL: ACKER HAND AUGER
4. HOLE NO. (As shown on drawing title and file number): B-3	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER: L. FIEBER / C. TREZAK	14. TOTAL NUMBER CORE BOXES: /
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: 95.58'
	16. DATE HOLE: STARTED 6-9-88; COMPLETED 6-9-88
7. THICKNESS OF OVERBURDEN: —	17. ELEVATION TOP OF HOLE: 99.58'
8. DEPTH DRILLED INTO ROCK: —	18. TOTAL CORE RECOVERY FOR BORING: 100 %
9. TOTAL DEPTH OF HOLE: 5.5'	19. SIGNATURE OF INSPECTOR: Laurence Louis Gutter

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0.0		FILL: CRUSHED WHITE LIMESTONE			WATER LEVEL
	1.0		FILL: MIXED BROWN CLAY, SAND, AND GRAVEL.		1	
	2.0					
	3.0		FILL: DARK BROWN CLAYEY SAND.		2	
	4.0					▼ 1 HR. ABANDONED
	5.0	SM-SP	BROWN SILTY SAND, LITTLE GRAVEL. (SATURATED)		3	
	6.0		END OF BORING @ 5.5'			

SURFACE 1.0 2.0 3.0 4.0 5.0 6.0

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT 81009 HOLE NO. B-3

MOSTARDI-PLATT
ASSOCIATES, INC.

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director
2200 Churchill Road, Springfield, IL 62794-9276
217/782-6761

June 16, 1993

Kenneth Morris
Sheffield Steel
Post Office Box 727
Industry Avenue
Joliet, Illinois 60434

Re: LPC #1970455247 -- Will County
Joliet/Sheffield Steel Corp.
1 Industry Avenue
LUST Incident #921619
LUST/Tech Report File

Dear Mr. Morris:

The Agency has received the Professional Engineer Certification Form dated May 25, 1993 and received June 4, 1993 by the Agency. Based certification by a registered professional engineer, James E. Huff, of Illinois, Kenneth Morris of Sheffield Steel the owner of the Underground Storage Tank and Kenneth Morris of Sheffield Steel the operator of the Underground Storage Tank, further remediation does not appear necessary in regard to the above referenced incident.

It should be noted that during any future excavation and/or construction at the above referenced site, the site safety plan must address worker exposure to the remaining soil contamination.

This letter does not constitute Agency approval of any costs incurred or corrective action activities performed during the remediation of the above referenced incident.

Should you have any questions or require further assistance, do not hesitate to contact Craig Steinheimer of my staff at 217/782-6761.

Sincerely,

Eric E. Portz, P.E., Manager
Engineering Sub-Unit
State Sites Unit
Leaking Underground Storage Tank Section
Division of Remediation Management
Bureau of Land

EEP:CS:ct,1133v,49

cc: James E. Huff, P.E.

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

May 18, 1993

Kenneth Morris
Sheffield Steel
P.O. Box 727, Industry Avenue
Joliet, Illinois 60434

Re: LPC #1970455247 -- Will County
Joliet/Sheffield Steel Corporation
1 Industry Avenue
LUST Incident #921619
LUST FILE

Dear Mr. Morris:

We are in receipt of the 45 Day Report dated November 9, 1992 and received December 7, 1992 by the Agency for the above referenced incident. This information has been reviewed for the purpose of establishing site-specific cleanup objectives due to the presence of a structure.

Your request for site-specific cleanup objectives has been reviewed and approved. The Professional Engineer Certification Form should be submitted at this time. The Agency will formally review the entire project when this form has been submitted.

Should you have any questions or require further assistance, do not hesitate to contact Craig Steinheimer of my staff at 217/782-6761.

Sincerely,

Eric E. Portz, P.E., Manager
Engineering Sub-Unit
State Sites Unit
Leaking Underground Storage Tank Section
Division of Remediation Management
Bureau of Land

EEP:CS:jar/0987v,17

cc: Jim Huff, Huff & Huff, Inc.

Printed on Recycled Paper

B

C

MATERIAL SAFETY DATA SHEET

Date: 10/30/95

Nos. 4776, 5520, 4777, 7793
7794, 1698, 5610, 7282

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 314-473-3626

SECTION I

PRODUCT NAME:	DV	BRICK MIX 1009	GREENAL-80-AR***
	DV-38	R-6005	GREENAL-83-MP
	DV-38 AH	GREEN 5B81	GREENAL-85
	DV-38 P	GREEN 5B84	

PRODUCT TYPE: Refractory Bricks or Shapes

CHEMICAL FAMILY: SiO_2 = 8-12% Al_2O_3 = 78-86% **FORMULA**: Not Applicable
Fe_2O_3 = 1-2% NaKO = 0.1-0.4%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2)* (5-12%)	0.05 mg/m^3** Respirable Dust	14464-46-1
Quartz (SiO_2)* (0-2%)	0.1 mg/m^3** Respirable Dust	14808-60-7

* Not mechanically separate from each other or other mineralogical phases in product as supplied.
** Source: American Conference of Governmental Industrial Hygienists, 1994-1995.
*** This product contains a barium compound, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge, use 3% barium content.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or chips can cause mechanical irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion or cuts.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, may cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: For broken shapes or fragments, sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place, away from extreme heat. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (see SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Wear impervious gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bricks or shapes.

Wash clothing separately and rinse washing machine afterwards.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Buff solid		
BOILING POINT:	Not Applicable	**pH:**	7
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.0-3.2	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT:	Not Regulated
Canadian TDG Hazard Class & PIN:	Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format, new MSDS for GREEN 5B81 and GREEN 5B84, replaces MSDS Dated 02/15/95 for other products.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 314-473-3392

JH:\MSDS\CURRENT\DV.105

MATERIAL SAFETY DATA SHEET

Date: 09/15/95 No. 1803

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 314-473-3626

SECTION I

PRODUCT NAME: GREENLITE-28

PRODUCT TYPE: Insulating Refractory Bricks or Shapes

CHEMICAL FAMILY: SiO_2 = 33-36% Al_2O_3 = 60-63% **FORMULA**: Not Applicable
Fe_2O_3 = 0.5-1% NaKO = 1.5-2.0%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
None — TLV for Nuisance Particulates Applies (PNOC)	10 mg/m^3* Total Dust	None

*Source: American Conference of Governmental Industrial Hygienists, 1994-1995.

SECTION III
PHYSICAL DATA

SOLUBILITY IN WATER: None **VOLATILES BY VOLUME (%)**: None

SPECIFIC GRAVITY: 2.0 **MELTING POINT**: Not Applicable

APPEARANCE AND ODOR: Off-white solid; no odor

SECTION IV
FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None

EXTINGUISHING MEDIA: Not Combustable

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known

SECTION V
HEALTH HAZARD DATA

EFFECT OF OVEREXPOSURE:

EYES: ACUTE: Dust or chips can cause mechanical irritation.
CHRONIC: None Known

SKIN: ACUTE: Can cause mechanical abrasion or cuts.

CHRONIC: None Known

INHALATION: ACUTE: Dust, if present, may cause upper respiratory irritation.
CHRONIC: Dust may cause lung damage if inhaled on a long-term basis.

INGESTION: ACUTE: Unknown
CHRONIC: Unknown

EYES: Immediately flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Treat abrasions or cuts using standard first aid procedures.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION VI
REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: None known

HAZARDOUS POLYMERIZATION: Will not occur

SECTION VII
SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: For broken shapes or fragments, sweep, shovel up, or pick up.

WASTE DISPOSAL METHOD: May be disposed of in an approved landfill, in accordance with local, state, and federal regulations.

SECTION VIII
SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved respirator when cutting or removing this product after service.

VENTILATION: General mechanical ventilation is usually adequate.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

OTHER PROTECTION: Wear leather gloves and long-sleeved and long-legged clothing to protect hands, armsm and legs from skin contact or abrasion. Safety shoes should be worn to protect feet from accidentally dropped bricks or shapes.

SECTION IX
SPECIAL PRECAUTIONS

NIOSH approved respirators should be worn any time that refractories are torn out after service. While some respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Title: Senior Technical Consultant
Phone: (314) 473-3392

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MATERIAL SAFETY DATA SHEET 6903

Date: 09/13/96 No. 6903

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME: ALTEX® 85B

PRODUCT TYPE: Refractory Bricks or Shapes **NFPA/WHMIS Rating:** 1-0-0

CHEMICAL FAMILY: Al_2O_3 = 82-83% SiO_2 = 8-9% **FORMULA:** Not Applicable
Fe_2O_3 = 1-2% TiO_2 = 2-4%
NaKO = <1%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (5-12%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (0-2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Corundum (Al_2O_3) (20-30%)	10 mg/m^3* Total Dust	1344-28-1

*Source: American Conference of Governmental Industrial Hygienists, 1995-1996.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES: ACUTE: Dust or chips can cause mechanical irritation.
CHRONIC: None Known

SKIN:	ACUTE:	Can cause mechanical abrasion or cuts.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, may cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: For broken shapes or fragments, sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place, away from extreme heat. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Impervious gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bricks or shapes.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Light Buffed Colored, Solid		
BOILING POINT:	Not Applicable	**pH:**	Not Applicable
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.2-3.3	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT:	Not Regulated
Canadian TDG Hazard Class & PIN:	Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

JH:\MSDS\CURRENT\AT85B.096

MATERIAL SAFETY DATA SHEET

Date: 01/05/96

Nos. 3912, 4990, 1286
7153, 6915, 3913, 1650, 3915
3916, 3917, 7147, 3918, 3919

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME:

BRICK MIX 1002	HIAC® K	PRAIRIE
CENTURION®	HIAC® K CB BF	R-2009
CLIPPER® AH	KX-99®	SDS MULTIHOLE CHECKER
CLIPPER® DP	KX-99® BF	SUPER DUTY (was General Refrac. prod)
CLIPPER® HB	KX-99® BF AH	SUPER DUTY (Refractory Anchor)
CLIPPER® S	MEX-KO	YUKON
CLIPPER® SM	MEX-KO "900"	
CLIPPER® "900"		

PRODUCT TYPE: Super Duty Refractory Bricks or Shapes

CHEMICAL FAMILY: SiO_2 = 50-54% Al_2O_3 = 42-45% **FORMULA**: Not Applicable
Fe_2O_3 = 1-2% NaKO = 0.5-1%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite* (SiO_2)	0.05 mg/m^{3**} Respirable Dust	14464-46-1
Quartz* (SiO_2)	0.1 mg/m^{3**} Respirable Dust	14808-60-7

*Not mechanically separate from each other or from other mineralogical phases in product as supplied.
**Source: American Conference of Governmental Industrial Hygienists, 1994-1995.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or

nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or chips can cause mechanical irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion or cuts.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, may cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: For broken shapes or fragments, sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place, away from extreme heat. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Impervious gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bricks or shapes.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Off-white to brown solid		
BOILING POINT:	Not Applicable	**pH:**	7
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.6-2.7	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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MATERIAL SAFETY DATA SHEET

Date: 09/13/96

Nos. 1905, 5120, 5111

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME:

SUPER HYBOND®
SUPER HYBOND® Plus
SUPER HYBOND® GR
SUPER HYBOND® GR Plus
SUPER HYBOND® J
SUPER HYBOND® J Plus
SUPER HYBOND® S
SUPER HYBOND® S Plus
GREENGUN-45
GREENGUN-45 Plus
SUPER BOND
SUPER BOND Plus

PRODUCT TYPE: Castable Refractory

NFPA/WHMIS Rating: 1-0-0

CHEMICAL FAMILY:

SiO_2	= 48-51%	Al_2O_3	= 43-46%
Fe_2O_3	= 1-2%	TiO_2	= 1-3%
NaKO	= 1%		

FORMULA: Not Applicable

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (3-12%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (1-4%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Aluminum Sulfate (<5%)	2 mg/m^3*	10043-01-3
Glass Cullet (Powdered Glass) (<5%)	(None)	(None)

*Source: American Conference of Governmental Industrial Hygienists, 1995-1996.

SECTION III
HAZARDS INFORMATION

Since product contains aluminum sulfate, SO_x fumes may be given off during burn-in.

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust can cause mechanical irritation. Product's cement can cause eye irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Product's cement can cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort or irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: The aluminum sulfate present, if heated to decomposition, will emit toxic fumes of SO_x.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: If dry, predampen and sweep or shovel up. If wet (after mixing with water for use), sweep or shovel up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bags of castable.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Granular Mixture		
BOILING POINT:	Not Applicable	**pH:**	2-4
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.6	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New Format, Replaces MSDS Dated 09/01/93

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

JH:\MSDS\CURRENT\SHYBOND.096

MATERIAL SAFETY DATA SHEET 1997

Date: 10/31/97 No. 1997

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265

APGI Emergency Telephone Number — Call 573-473-3626
Transportation Emergencies — Contact CHEMTREC at 800-424-9300
International Emergencies — Contact CHEMTREC at 703-527-3887
Health Emergencies — Contact Your Local Poison Center

SECTION I

PRODUCT NAME: GREFPATCH® 85 GREFPATCH® 85 Plus GREFPATCH® 85 Wet GREFPATCH® 85 Wet Plus

PRODUCT TYPE: Refractory Patching Plaster

Canadian WHMIS Classification: D,2,E **NFPA Rating:** 1-0-0

CHEMICAL FAMILY:

SiO_2	= 9-11%	Al_2O_3	= 83-85%	**FORMULA:** Not Applicable
Fe_2O_3	= 1-2%	NaKO	= <1%	
TiO_2	= 1-2%	P_2O_5	= 2-3%	

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (3-10%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (3-4%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Alumina (Al_2O_3) (<2%)	10 mg/m^3* Total Dust	1344-28-1
Phosphoric Acid (H_3PO_4) (4-5%)	1 mg/m^3*	7664-38-2**

*Source: American Conference of Governmental Industrial Hygienists, 1996.
**This product contains phosphoric acid, CAS No. 7664-38-2, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge use 5% phosphoric acid content.

SECTION III
HAZARDS INFORMATION

Since this product contains phosphoric acid, toxic PO_x fumes can be formed on burn in.

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as Group 1. The agency states there is sufficient evidence of carcinogenicity in humans. Reference: IARC Monograph 68.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust can cause mechanical irritation. Phosphoric acid can cause eye injury.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion. Phosphoric acid can cause skin injury.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Phosphoric acid is moderately toxic if ingested.
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. Seek medical attention.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Physician or poison control center should be advised that product contains phosphoric acid (5%). Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If heated to decomposition, the phosphoric acid will emit toxic fumes of PO_x.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep or shovel up and place in a container for disposal. Pre-dampening reduces tendency to dust.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Rubber gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of mortar.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray Granular Mixture		
BOILING POINT:	Not Applicable	**pH:**	3-5
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.7	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS Dated 05/15/96

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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MATERIAL SAFETY DATA SHEET 1062

Date: 09/26/97 No. 1062

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265

APGI Emergency Telephone Number — Call 573-473-3626
Transportation Emergencies — Contact CHEMTREC at 800-424-9300
International Emergencies — Contact CHEMTREC at 703-527-3887
Health Emergencies — Contact Your Local Poison Center

SECTION I

PRODUCT NAME:

GREENPAK-85-P	GREENPAK-85-MP
GREENPAK-85-P Plus	GREENPAK-85-MP Plus
GREENPAK-85-P GR	GREENPAK-85-MP RAM
GREENPAK-85-P GR Plus	GREENPAK-85-MP RAM Plus
GREENPAK-85-PF	GREENPAK-85-MP S
GREENPAK-85-PF Plus	GREENPAK-85-MP S Plus

PRODUCT TYPE: Plastic Refractory (Solid or Wet)

Canadian WHMIS Classification: D,2,E **NFPA Rating:** 1-0-0

CHEMICAL FAMILY:

SiO_2	= 6-14%	Al_2O_3	= 82-90%
Fe_2O_3	= 1-2%	TiO_2	= 2-3%
NaKO	= <1%	P_2O_5	= 3-4%

FORMULA: Not Applicable

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (<10%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Alumina (Al_2O_3) (<30%)	10 mg/m^3* Total Dust	1344-28-1
Phosphoric Acid (H_3PO_4) (<10%)	1 mg/m^3*	7664-38-2**

*Source: American Conference of Governmental Industrial Hygienists, 1996.
**This product contains phosphoric acid, CAS No. 7664-38-2, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge use 6% phosphoric acid content.

SECTION III
HAZARDS INFORMATION

Since this product contains phosphoric acid, toxic PO_x fumes can be formed on burn in.

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as Group 1. The agency states there is sufficient evidence of carcinogenicity in humans. Reference: IARC Monograph 68.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or aggregate can cause mechanical irritation. Phosphoric acid can cause eye injury.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion. Phosphoric acid can cause skin injury.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Phosphoric acid is moderately toxic if ingested.
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. Promptly, consult physician.

SKIN: Promptly wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Physician or poison control center should be advised that product contains phosphoric acid (<7%). Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If heated to decomposition, the phosphoric acid will emit toxic fumes of PO_x.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Leather gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of product.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray Mixture (Solid or Wet)		
BOILING POINT:	Not Applicable	**pH:**	3-5
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.2-3.4	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS Dated 02/05/97

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

1062

MATERIAL SAFETY DATA SHEET

Date: 10/24/96

No. 1062

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME:

GREENPAK-85-P
GREENPAK-85-P Plus
GREENPAK-85-PF
GREENPAK-85-PF Plus
GREENPAK-85-P GR
GREENPAK-85-P GR Plus
GREENPAK-85-MP
GREENPAK-85 MP Plus
GREENPAK-85-MP S
GREENPAK-85-MP S Plus

PRODUCT TYPE: Plastic Refractory

NFPA/WHMIS Rating: 1-0-0

CHEMICAL FAMILY:

SiO_2	= 6-14%	Al_2O_3	= 82-90%
Fe_2O_3	= 1-2%	TiO_2	= 2-3%
NaKO	= <1%	P_2O_5	= 3-4%

FORMULA: Not Applicable

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (<10%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Alumina (Al_2O_3) (<30%)	10 mg/m^3* Total Dust	1344-28-1
Phosphoric Acid (H_3PO_4) (<10%)	1 mg/m^3*	7664-38-2**

*Source: American Conference of Governmental Industrial Hygienists, 1995-1996.

**This product contains phosphoric acid, CAS No. 7664-38-2, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge use 6% phosphoric acid content.

SECTION III
HAZARDS INFORMATION

Since this product contains phosphoric acid, toxic PO_x fumes can be formed on burn in.

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or aggregate can cause mechanical irritation. Phosphoric acid can cause eye injury.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion. Phosphoric acid can cause skin injury.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Phosphoric acid is moderately toxic if ingested.
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. Promptly, consult physician.

SKIN: Promptly wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Physician or poison control center should be advised that product contains phosphoric acid (<7%). Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: The phosphoric acid, if heated to decomposition, will emit toxic fumes of PO_x.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Leather gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of product.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Solid		
BOILING POINT:	Not Applicable	**pH:**	3-5
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.2-3.4	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS dated 07/18/96.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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MATERIAL SAFETY DATA SHEET

Date: 06/14/96

Nos. 1062, 5153, 4979
6814, 8030, 5173

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME:

GREENPAK-85-P
GREENPAK-85-P Plus
GREENPAK-85-PF
GREENPAK-85-PF Plus
GREENPAK-85-P GR
GREENPAK-85-P GR Plus
GREENPAK-85-MP
GREENPAK-85-MP Plus
GREENPAK-85-MP S
GREENPAK-85-MP S Plus

GREENPAK-83-MP
GREENPAK-83-MP Plus
GREENPAK-83-P Plus
GREENPAK-83-MP S
GREENPAK-83-MP S Plus

GREENGUN-85 P
GREENGUN-85 P Plus
GREENGUN-85 MP
GREENGUN-85 MP Plus
GREENGUN-85-MPA
GREENGUN-85-MPA Plus
GREENGUN-83 P
GREENGUN-83 P Plus
GREENGUN-83 P Plus M

PRODUCT TYPE: Plastic Refractory

NFPA/WHMIS Rating: 1-0-0

CHEMICAL FAMILY:

SiO_2	= 6-14%	Al_2O_3	= 82-90%
Fe_2O_3	= 1-2%	TiO_2	= 2-3%
NaKO	= <1%	P_2O_5	= 3-4%

FORMULA: Not Applicable

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (<10%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Alumina (Al_2O_3) (<30%)	10 mg/m^3* Total Dust	1344-28-1
Phosphoric Acid (H_3PO_4) (<10%)	1 mg/m^3**	7664-38-2***
Graphite* (<2%)	2 mg/m^3** Respirable Dust	7782-42-5

*Only in GREENGUN products.
**Source: American Conference of Governmental Industrial Hygienists, 1995-1996.
***This product contains phosphoric acid, CAS No. 7664-38-2, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge use 6% phosphoric acid content.

SECTION III
HAZARDS INFORMATION

Since this product contains phosphoric acid, toxic PO_x fumes can be formed on burn in.

Under certain service conditions, mainly due to the presence of alkalis or alkaline earth compounds at high temperatures, soluble hexavalent chromium compounds may be formed. Hexavalent chrome is considered to be potentially hazardous material, requiring special disposal consideration involving an approved hazardous waste disposal site.

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or aggregate can cause mechanical irritation. Phosphoric acid can cause eye injury.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion. Phosphoric acid can cause skin injury.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Phosphoric acid is moderately toxic if ingested.
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. Promptly, consult physician.

SKIN: Promptly wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Physician or poison control center should be advised that product contains phosphoric acid (<7%). Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: The phosphoric acid, if heated to decomposition, will emit toxic fumes of PO_x.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Leather gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of product.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Solid		
BOILING POINT:	Not Applicable	**pH:**	3-5
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.2-3.4	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format, replaces MSDS dated 01/01/95.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392
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MATERIAL SAFETY DATA SHEET

Date: 01/01/95

Nos. 1062, 5173, 5475
4791, 4790, 4979, 5153, 6814

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO. 65265
TELEPHONE NUMBER -- 314-473-3626

SECTION I

PRODUCT NAME:

GREENPAK-85-P	R-7011	GREENGUN-85 P
GREENPAK-85-PF	R-7011 Plus	GREENGUN-85 P Plus
GREENPAK-85-P Plus	R-2010	GREENPAK-83-MP
GREENPAK-85-PF Plus	R-2010 Plus	GREENPAK-83-MP Plus
GREENPAK-85-P GR	R-2010 GR	GREENPAK-83-P Plus
GREENPAK-85-P GR Plus	R-2010 GR Plus	GREENPAK-83-MP S
GREENPAK-85-MP	GREENGUN-83 P	GREENPAK-83-MP S Plus
GREENPAK-85-MP Plus	GREENGUN-83 P Plus	GREENGUN-85 MP
GREENPAK-85-MP S	GREENGUN-83 P Plus M	GREENGUN-85 MP Plus
GREENPAK-85-MP S Plus		

PRODUCT TYPE: Plastic Refractory

CHEMICAL FAMILY:

SiO_2	= 6-14%	Al_2O_3	= 82-90%
Fe_2O_3	= 1-2%	TiO_2	= 2-3%
NaKO	= <1%	P_2O_5	= 3-4%

FORMULA: Not Applicable

Note: The above listed products differ in one or more physical characteristics but are chemically equivalent. Information given in SECTIONS II and IX of this Material Safety Data Sheet applies to each product listed.

SECTION II

PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Quartz (SiO_2) (<2%)	0.1 mg/m^3** Respirable Dust	14808-60-7
Cristobalite (SiO_2) (<10%)	0.05 mg/m^3** Respirable Dust	14464-46-1
Phosphoric Acid (H_2O_3) (<10%)	1 mg/m^3**	7664-38-2***
Alumina (Al_2O_3) (<30%)	10 mg/m^3** Total Dust	1344-28-1
Graphite* (<2%)	2 mg/m^3** Respirable Dust	7782-42-5

*Only in GREENGUN products.
**Source: American Conference of Governmental Industrial Hygienists, 1994-1995.
***This product contains phosphoric acid, CAS No. 7664-38-2, which is reportable under Section 313 of Title III of SARA and 40 CFR Part 372. For purposes of reporting environmental discharge use 6% phosphoric acid content.

SECTION III

PHYSICAL DATA

SOLUBILITY IN WATER: Slight

MELTING POINT: Not Applicable

SPECIFIC GRAVITY: 3.2-3.4

pH: 2-4

SECTION IV

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: None

EXTINGUISHING MEDIA: Not Combustible

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE AND EXPLOSION HAZARDS: The phosphoric acid if heated to decomposition will emit toxic fumes of PO_x.

SECTION V

HEALTH HAZARD DATA

EFFECT OF OVEREXPOSURE:

EYES	ACUTE:	Dust or aggregate particles can cause mechanical irritation. Phosphoric acid may cause eye injury.
	CHRONIC:	None known.
SKIN	ACUTE:	Can cause mechanical abrasion. Phosphoric acid can cause skin injury.
	CHRONIC:	None known.
INHALATION	ACUTE:	Dust, if present, may cause upper respiratory irritation.
	CHRONIC:	Dust may cause lung damage if inhaled on a long-term basis.
INGESTION	ACUTE:	Unknown.
	CHRONIC:	Unknown.

FIRST AID PROCEDURES:

EYES	Immediately flush eyes with water for 15 minutes. Consult physician if irritation occurs.
SKIN	Wash with soap and water. Treat abrasions using normal first aid procedures.
INHALATION	Remove to fresh air. Seek medical attention.
INGESTION	Contact physician immediately. Do not induce vomiting unless instructed to do so by a physician.

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SECTION VI

REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

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SECTION VII

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep, shovel up, or pick up.

WASTE DISPOSAL METHOD: May be disposed of in an approved landfill, in accordance with local, state, and federal regulations.

==========

SECTION VIII

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH approved respirator when working around dried material or when removing this product after service.

VENTILATION: General mechanical ventilation is adequate.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

OTHER PROTECTION: Use of leather gloves and long-sleeved and long-legged clothing protects hands, arms, and legs from skin contact or abrasion. Safety shoes should be worn to protect feet from accidentally dropped blocks of plastic.

==========

SECTION IX

SPECIAL PRECAUTIONS

Since this product contains phosphoric acid, toxic PO_x fumes can be formed on burn in.

Warning: This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

NIOSH approved respirators should be worn any time that refractories are torn out after service. While some respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may also be present as a result of use conditions. These foreign substances may warrant additional precautions during tearout and disposal.

This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in Section II - HAZARDOUS INGREDIENTS section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Title: Senior Technical Consultant
Phone: (314) 473-3392

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5435

MATERIAL SAFETY DATA SHEET

Date: 11/21/96 No. 5435

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME: ULTRA-GREEN 70
ULTRA-GREEN 70 Plus

PRODUCT TYPE: Castable Refractory

Canadian WHMIS Classification: D,2 **NFPA Rating:** 1-0-0

CHEMICAL FAMILY: SiO_2 = 23-26% Al_2O_3 = 69-73% **FORMULA:** Not Applicable
CaO = 1% Fe_2O_3 = 1-2%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (<5%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Amorphous Silica (SiO_2) (<10%)	2 mg/m^3* Respirable Dust	69012-64-2
Alumina (Al_2O_3) (<10%)	10 mg/m^3* Total Dust	1344-28-1
Refractory Cement (<10%)	None (See Section IV)	12005-57-1

*Source: American Conference of Governmental Industrial Hygienists, 1995-1996.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust can cause mechanical irritation. Product's cement can cause eye irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Product's cement can cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort or irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: If dry, predampen and sweep or shovel up. If wet (after mixing with water for use), sweep or shovel up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bags of castable.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Granular Mixture		
BOILING POINT:	Not Applicable	**pH:**	9-11
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	3.2	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New Format, Replaces MSDS Dated 2/18/93

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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MATERIAL SAFETY DATA SHEET

Date: 02/29/96 Nos. 1065

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME:

MIZZOU® CASTABLE	MIZZOU® GR
MIZZOU® CASTABLE Plus	MIZZOU® GR Plus
MIZZOU® CASTABLE Supra	MIZZOU® GR Supra
MIZZOU® CASTABLE Supra Plus	MIZZOU® GR Supra Plus

PRODUCT TYPE: Castable Refractory

CHEMICAL FAMILY: SiO_2 = 29-36% Al_2O_3 = 57-63% **FORMULA**: Not Applicable
CaO = 2-4% Fe_2O_3 = 1-2%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (5-15%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Amorphous Silica (<5%)	2 mg/m^3* Respirable Dust	69012-64-2
Alumina (Al_2O_3) (<5%)**	10 mg/m^3* Total Dust	1344-28-1
Refractory Cement (<15%)	None (See Section V)	12005-57-1

*Source: American Conference of Governmental Industrial Hygienists, 1995-1996.
**MIZZOU® GR and MIZZOU® GR Plus only.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust can cause mechanical irritation. Product's cement can cause eye injury.
	CHRONIC:	None Known
SKIN:	ACUTE:	Product's cement can cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort or irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: If dry, predampen and sweep or shovel up. If wet (after mixing with water for use), sweep or shovel up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bags of castable.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Granular Mixture		
BOILING POINT:	Not Applicable	**pH:**	7-8
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.7	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

JH:\MSDS\CURRENT\MC.026

MATERIAL SAFETY DATA SHEET

Date: 06/23/95

No. 5031, 6373
1194, 3907

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 314-473-3626

SECTION I

PRODUCT NAME: INSWOOL® Moldable GREEN 1F30
INSWOOL® Flowable GREEN 1F31

PRODUCT TYPE: Refractory Ceramic Fibers

CHEMICAL FAMILY: Not Applicable **FORMULA:** Not Applicable

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Refractory Ceramic Fiber (Al_2O_3-SiO_2)	1 fiber/cc*	142844-00-6
Colloidal Silica (SiO_2)	Amorphous Silica Dust 10 mg/m^3** Total Dust	7631-86-9
Ethylene Glycol***	125 mg/m^3** Ceiling Vapor	107-21-1

*A. P. Green workplace exposure guideline. See also Section III.
**Source: American Conference of Govermnental Industrial Hygienists, 1994-1995.
***This product contains ethylene glycol, an ingredient listed in Section 313 of Title III of SARA and 40 CFR 372.65. For calculation purposes, ethylene glycol content of products on this MSDS is 5%.

SECTION III
HAZARDS INFORMATION

International Agency for Research on Cancer (IARC) has classified refractory ceramic fiber as 2B — possibly carcinogenic to humans.

As supplied, product contains no crystalline silica; however, when exposed to temperatures above 1800°F (982°C) during service, cristobalite, a form of crystalline silica, may form. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Its study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

Contact between refractory ceramic fibers and skin may result in transitory skin rash. Susceptibility varies with individuals, with some individuals showing no susceptibility.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Causes mechanical irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	May cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Non-Flammable

EXTINGUISHING MEDIA: Not applicable for product.

FIRE FIGHTING INSTRUCTIONS: No special instructions.

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Dampen, then pick up or scoop up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place, away from extreme heat. Product is non-flammable, but packaging is combustible.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate ventilation to meet exposure controls (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator for mineral dusts when working with this product.

EYE PROTECTION: Use safety glasses with side shields to avoid eye contact.

SKIN PROTECTION: Wear impervious gloves and long-sleeved clothing to avoid skin contact. Cleanse exposed skin after any contact.

OTHER: Wash work clothing separately; rinse washing machine thoroughly after use.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White to off-white fiber, prepared in the form of a moldable paste, with no odor.		
BOILING POINT:	Not Applicable	pH:	7
SOLUBILITY IN WATER:	None	ODOR:	None
SPECIFIC GRAVITY:	2.2	MELTING POINT:	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format, replaces MSDS Dated 1/28/93.

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 314-473-3392

JH:\MSDS\CURRENT\IWM.065

MATERIAL SAFETY DATA SHEET

Date: 01/26/98

Nos. 3297
3904, 3102

A. P. GREEN REFRACTORIES, INC.
and Subsidiaries
GREEN BOULEVARD, MEXICO, MO 65265

Emergency Telephone Number — Call 573-473-3626
Transportation Emergencies — Contact CHEMTREC at 800-424-9300
International Emergencies — Contact CHEMTREC at 703-527-3887
Health Emergencies — Contact Your Local Poison Center

SECTION I

PRODUCT NAME:		
	INSWOOL® BLANKET	INSWOOL® BULK
	INSWOOL®-HP BLANKET	INSWOOL®-HP BULK
	INSWOOL®-HP-M BLANKET*	INSWOOL®-HP-M BULK*
	INSWOOL®-HT BLANKET	INSWOOL®-HT BULK
	INSWOOL®-HT-M BLANKET*	INSWOOL®-HT-M BULK*
	INSWOOL®-LT BLANKET	INSWOOL®-LT BULK
	INSWOOL®-LT-M BLANKET*	INSWOOL®-LT-M BULK*
	INSWOOL -M BLANKET	INSWOOL®-M BULK
		INSWOOL MODULE BE-104

PRODUCT TYPE: Refractory Ceramic Fiber Blanket or Bulk

Canadian WHMIS Classification: D,2

NFPA Rating: 1-0-0

CHEMICAL FAMILY: Not Applicable

FORMULA: Not Applicable

*Manufactured in the Republic of Mexico.

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Refractory Ceramic Fiber (Al_2O_3-SiO_2) (100%)	1 fiber/cc*	142844-00-6

*A. P. Green workplace exposure guideline. See also Section III.

SECTION III
HAZARDS INFORMATION

American Conference of Governmental Industrial Hygienists (ACGIH) is proposing a TLV-TWA of 0.1 to 0.5 fibers/cc for Refractory Ceramic Fiber.

International Agency for Research on Cancer (IARC) has classified Refractory Ceramic Fiber as 2B — possibly carcinogenic to humans.

As supplied, product contains no crystalline silica; however, when exposed to temperatures above 1800°F (982°C) during service, cristobalite, a form of crystalline silica, may form. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as Group 1. The agency states there is sufficient evidence of carcinogenicity in humans. Reference: IARC Monograph 68.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

Contact between refractory ceramic fibers and skin may result in transitory skin rash. Susceptibility varies with individuals, with some individuals showing no susceptibility.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Causes mechanical irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	May cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Non-Flammable

EXTINGUISHING MEDIA: Not applicable for product.

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Dampen, then pick up or scoop up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place, away from extreme heat. Product is non-flammable, but packaging is combustible.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate ventilation to meet exposure controls (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator for mineral dusts when working with this product.

EYE PROTECTION: Use safety glasses with side shields to avoid eye contact.

SKIN PROTECTION: Wear impervious gloves and long-sleeved clothing to avoid skin contact. Cleanse exposed skin after any contact.

OTHER: Wash work clothing separately; rinse washing machine thoroughly after use.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White to Off-White Fiber, in Blanket or Bulk Form		
BOILING POINT:	Not Applicable	**pH:**	7
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	Not Applicable	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS Dated 08/01/97

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Refractories, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

MATERIAL SAFETY DATA SHEET 5077

Date: 12/26/97 No. 5077

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265

APGI Emergency Telephone Number — Call 573-473-3626
Transportation Emergencies — Contact CHEMTREC at 800-424-9300
International Emergencies — Contact CHEMTREC at 703-527-3887
Health Emergencies — Contact Your Local Poison Center

SECTION I

PRODUCT NAME: No. 36 REFRACTORY CEMENT

PRODUCT TYPE: Refractory Mortar

Canadian WHMIS Classification: D,2 **NFPA Rating:** 1-0-0

CHEMICAL FAMILY: SiO_2 = 23-27% Al_2O_3 = 65-69% **FORMULA:** Not Applicable
Fe_2O_3 = 1-2% NaKO = 2-3%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (<8%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (<5%)	0.1 mg/m^3* Respirable Dust	14808-60-7
Liquid Sodium Silicate (15-22%)	None	1344-09-8

*Source: American Conference of Governmental Industrial Hygienists, 1997.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as Group 1. The agency states there is sufficient evidence of carcinogenicity in humans. Reference: IARC Monograph 68.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust or aggregate can cause mechanical irritation. Liquid sodium silicate can cause eye injury or irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Can cause mechanical abrasion. Liquid sodium silicate can cause skin drying and chapping.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. Obtain prompt medical attention

SKIN: Wash with soap and water. Seek medical attention if irritation occurs.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep or shovel up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Rubber gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of mortar.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Buff to Gray Granular Paste		
BOILING POINT:	Not Applicable	**pH:**	10-11
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.2	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed

SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS Dated 05/02/97

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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MATERIAL SAFETY DATA SHEET 22

Date: 11/14/97 No. 22

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265

APGI Emergency Telephone Number — Call 573-473-3626
Transportation Emergencies — Contact CHEMTREC at 800-424-9300
International Emergencies — Contact CHEMTREC at 703-527-3887
Health Emergencies — Contact Your Local Poison Center

SECTION I

PRODUCT NAME: KAST-O-LITE® 30 KAST-O-LITE® 30 GR
KAST-O-LITE® 30 Plus KAST-O-LITE® 30 GR Plus

PRODUCT TYPE: Castable Refractory

Canadian WHMIS Classification: D,2 **NFPA Rating:** 1-0-0

CHEMICAL FAMILY: SiO_2 = 32-35% Al_2O_3 = 58-61% **FORMULA:** Not Applicable
CaO = 4-5% Fe_2O_3 = 2%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (5-15%)	0.05 mg/m^{3*} Respirable Dust	14464-46-1
Quartz (SiO_2) (<2%)	0.1 mg/m^{3*} Respirable Dust	14808-60-7
Alumina (Al_2O_3) (<5%)	10 mg/m^{3*} Total Dust	1344-28-1
Refractory Cement (20-30%)	None (See Section IV)	12005-57-1

*Source: American Conference of Governmental Industrial Hygienists, 1996.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as Group 1. The agency states there is sufficient evidence of carcinogenicity in humans. Reference: IARC Monograph 68.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES:	ACUTE:	Dust can cause mechanical irritation. Product's cement can cause eye irritation.
	CHRONIC:	None Known
SKIN:	ACUTE:	Product's cement can cause skin irritation.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust generated can cause breathing discomfort or irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. If irritation occurs, consult physician.

SKIN: Wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: If dry, predampen and sweep or shovel up. If wet (after mixing with water for use), sweep or shovel up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped bags of castable.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Gray, Granular Mixture		
BOILING POINT:	Not Applicable	**pH:**	10-11
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	1.0	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT: Not Regulated
Canadian TDG Hazard Class & PIN: Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed
SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: Replaces MSDS Dated 04/04/97

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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5116

MATERIAL SAFETY DATA SHEET

Date: 02/11/97 No. 5116

A. P. GREEN INDUSTRIES, INC.
GREEN BOULEVARD, MEXICO, MO 65265
EMERGENCY TELEPHONE NUMBER — 573-473-3626

SECTION I

PRODUCT NAME: SUPER G® SUPER G® Plus SUPER G® J SUPER G® J Plus

PRODUCT TYPE: Plastic Refractory

Canadian WHMIS Classification: D,2 **NFPA Rating:** 1-0-0

CHEMICAL FAMILY: SiO_2 = 43-46% Al_2O_3 = 49-52% **FORMULA:** Not Applicable
Fe_2O_3 = 1-3% TiO_2 = 1-3%
NaKO = 1%

SECTION II
PRODUCT HAZARDOUS INGREDIENTS

CHEMICAL	TLV-TWA	CAS #
Cristobalite (SiO_2) (3-10%)	0.05 mg/m^3* Respirable Dust	14464-46-1
Quartz (SiO_2) (1-4%)	0.1 mg/m^3* Respirable Dust	14808-60-7

*Source: American Conference of Governmental Industrial Hygienists, 1996.

SECTION III
HAZARDS INFORMATION

This product contains crystalline silica. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Their study concluded that sufficient evidence for carcinogenicity exists in experimental animals and that limited evidence for carcinogenicity exists in humans.

Dust from product at any stage of its use or during tear-out after service may, especially on long exposure, lead to lung disease unless respiratory protection is employed. NIOSH approved respirators should be worn any time that refractories are torn out after service. While a respiratory hazard and/or nuisance dust may exist from the product itself, other foreign substances may warrant additional precautions during tearout and disposal.

SECTION IV
FIRST AID MEASURES

EFFECT OF OVEREXPOSURE:

EYES: ACUTE: Dust or aggregate can cause mechanical irritation. Phosphoric acid can cause eye injury.
CHRONIC: None Known

SKIN:	ACUTE:	Can cause mechanical abrasion.
	CHRONIC:	None Known
INHALATION:	ACUTE:	Dust, if present, can cause upper respiratory irritation.
	CHRONIC:	Long-term exposure to dust may cause lung damage.
INGESTION:	ACUTE:	Unknown
	CHRONIC:	Unknown

FIRST AID MEASURES:

EYES: Flush with clean water for 15 minutes. Promptly, consult physician.

SKIN: Promptly wash with soap and water. If irritation occurs, consult physician.

INHALATION: Remove to fresh air. Seek medical attention.

INGESTION: Contact physician immediately. Do not induce vomiting unless instructed to do so by physician. Product is non-toxic as supplied, but its abrasive nature could damage internal organs.

SECTION V
FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: None

EXTINGUISHING MEDIA: Not Combustible

FIRE FIGHTING INSTRUCTIONS: No special instructions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION VI
ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: Sweep, shovel up, or pick up and place in a container for disposal.

SECTION VII
HANDLING AND STORAGE

Store in a dry place. Product is non-flammable.

SECTION VIII
EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation is usually adequate (SECTION II).

RESPIRATORY PROTECTION: Use a NIOSH approved respirator when working around dried material and when removing this product after service.

EYE PROTECTION: Goggles or safety glasses with side shields should be worn.

SKIN PROTECTION: Leather gloves and long-sleeved and long-legged clothing should be worn to prevent skin contact.

OTHER: Safety shoes should be worn to prevent foot injury from accidentally dropped containers of product.

SECTION IX
PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Buff to gray Granular Solid		
BOILING POINT:	Not Applicable	**pH:**	Not Applicable
SOLUBILITY IN WATER:	None	**ODOR:**	None
SPECIFIC GRAVITY:	2.6	**MELTING POINT:**	Not Applicable

SECTION X
STABILITY AND REACTIVITY

Product is stable under normal conditions of use, storage, and transportation.

Product can react with concentrated acids.

SECTION XI
TOXICOLOGICAL INFORMATION

LD_{50} or LC_{50} for oral, dermal, or inhalation routes of administration: no data for product.

SECTION XII
ECOLOGICAL INFORMATION

Ecotoxicological/chemical fate information: not available.

SECTION XIII
DISPOSAL CONSIDERATIONS

As supplied, product may be disposed of in an approved landfill, in accordance with federal, state, and local regulations.

Supplier can make no statement concerning disposal of used product, since product may become contaminated by hazardous materials during use.

SECTION XIV
TRANSPORT INFORMATION

U.S.A. DOT:	Not Regulated
Canadian TDG Hazard Class & PIN:	Not Regulated

SECTION XV
REGULATORY INFORMATION

TSCA Status: All Components Listed
Canadian DSL: All Components Listed

SARA Title III, Section 313: This MSDS provides the toxic chemical "SUPPLIER INFORMATION" required under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372. Toxic chemical information, if applicable to the product(s) named, is located in **Section II - HAZARDOUS INGREDIENTS** section of the MSDS. This information is subject to the toxic chemical reporting requirements of Section 313 and must be included in all MSDSs that are copied and distributed for this product.

SECTION XVI
OTHER INFORMATION

MSDS Status: New format, Replaces MSDS Dated 01/03/94

Note: This material safety data sheet contains confidential proprietary information and is not to be disclosed to the general public or to competition except as required by law. The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with A. P. Green Industries, Inc. or not. This information is offered solely for use in your evaluation of this product in respect to safety, health, and environmental hazards.

Prepared By: Ellis J. Smith
Senior Technical Consultant
Phone: 573-473-3392

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Sheffield - Joli Photos of 1 and 5 gallon containers
Refractory Brick Pile East Side of Facility
Photos 54-58, August 18, 1999
EPA Photos 10 & 13

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KLEER-PAX RECYCLED

80000 SERIES
10% P.C.W.

ARRO Laboratory, Inc.
Est. 1965
P.O. Box 686 Caton Farm Road
Joliet, Illinois 60434
Phone: 815-727-5436
FAX 815-740-3234

Attention of: MR. TOM FURDETTE
Company SHEFFIELD STEEL CORPORATION
Address PO BOX 727
City/State/Zip JOLIET IL 60434-0727

P.O.Number 6282
Date Received 05/07/97
Date Completed 05/22/97

ARRO NO.	SAMPLE DESCRIPTION	DATE
188964	MILL SCALE	05/07/97

EPA SOLID WASTE REQUIREMENTS

ANALYSIS	AS RECEIVED ug/gm	TCLP EXTRACT mg/l	
ARSENIC		<2.	05/20/97 SC
CADMIUM		<1.	05/14/97 SC
CHROMIUM,TOTAL		<1.	05/16/97 SC
LEAD		<1.	05/19/97 SC
MERCURY, ppb		<0.5	05/21/97 SR
BARIUM		<1.	05/16/97 SC
SELENIUM		<1.	05/20/97 SC
SILVER		<1.	05/15/97 SC

RESULTS IN mg/l UNLESS OTHERWISE INDICATED

* SEE ATTACHMENT FOR COMMENTS

I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS REPORT AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE.

APPROVED BY Joan Serdar ..... DATE 05/27/97
Joan Serdar, Director
Environmental Services

TESTING IS IN ACCORDANCE WITH PROCEDURES OUTLINED IN THE NEWEST EDITIONS OF:
THE FEDERAL REGISTER, SW-846

MATERIAL SAFETY DATA SHEET

I GENERAL INFORMATION

Identity: STEEL MILL SCALE
Synonyms:
Family: Inorganic Compounds

Revision 3
Date: January 2,1998
MSDS #MSDSSCALE.02

Manufacturer's Name: Sheffield Steel Corporation
Manufacturer's Address: 1 Industry Avenue
Joliet, Illinois 60434

Information Telephone Number: (815) 723-9335
Emergency Telephone Number: (815) 723-9335

II HAZARDOUS CONSTITUENTS

Scale may contain the following:

Constituent	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)	% (Range)	CAS #
Iron[a]	10[b]	5	50-99	1309-37-1[a]
Calcium	-	-	0-50	---
Aluminum	15[b], 5[c]	10	0-10	7429-90-5
Manganese[d]	1	1	0-5	7439-96-5[d]
Arsenic	0.5[e]	0.2	0-1	7440-38-2
Cadmium[f]	0.1	0.05[g]	0-1	1306-19-0[f]
Chromium	1	0.5	0-1	7440-47-3
Copper[h]	0.1	0.2	0-1	7440-50-8[h]
Lead[i]	0.05	0.15	0-1	7439-92-1[f]
Nickel	1	1	0-1	7440-02-0
Potassium	-	-	0-1	7440-09-7
Sulfur	-	-	0-1	7704-34-9
Titanium	10[b,j], 5[c,j]	10	0-1	13463-67-7[j]
Tungsten[k]	1	1	0-1	---
Zinc	5[l]	5[l]	0-1	1314-13-2[h]

Notes:
(a) Fume, as Fe
(b) Total Dust
(c) Respirable Fraction
(d) Fume, as Mn
(e) Inorganic Compounds
(f) Fume, as Cd
(g) Ceiling
(h) Fume
(i) Inorganic Dusts and Fumes, as Pb
(j) Titanium Dioxide
(k) Soluble Compounds
(l) Zinc Oxide Fume

Many substances do not have a unique exposure limit. The absence of it does not lessen consideration for exposure risk. In the absence of specific information professional judgment may be required.

III PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point:	±5000 °F	Melting Point:	±2500 °F
Vapor Pressure (mm Hg)	N/A	Specific Gravity (H_2O = 1)	7.8-8.2
Vapor Density (Air = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	Insoluble		
Appearance and Odor:	Black metal, odorless, mainly consists of small particles or chips		

IV PHYSICAL AND CHEMICAL HAZARDS

Flash Point: Not Flammable LEL: N/A
Extinguishing Media: N/A UEL N/A
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

V REACTIVITY DATA

Stability: Stable Conditions to avoid: N/A

Incompatibility: Reacts with strong acids to liberate explosive hydrogen gas.

Hazardous decomposition or byproducts: Metallic oxides or metal fumes may be produced during melting operations.

VI HEALTH HAZARD DATA

Routes of Entry
Inhalation: Yes
Skin: No
Ingestion: Yes

Health Hazards:

Acute: Inhalation of fumes may result in chills and fever for 12 to 48 hours. Metal fume fever - metallic taste, throat irritation and flu-like symptoms.

Chronic: Chromium, manganese and nickel fumes may cause lung disease, lead fumes can damage kidneys and affect muscle strength.

Carcinogenic:
NTP: Arsenic, nickel, chromium, cadmium
IARC: Arsenic, nickel, chromium, cadmium, lead
OSHA: Arsenic

Signs and Symptoms of Exposure: Nausea, tightness of chest, fever, irritation of eyes, nose, throat and skin.

Medical Conditions Generally Aggravated by Exposure: Chronic lung disease, allergic conditions.

Emergency and First Aid Procedures: Dust, welding fumes - remove to fresh air. Eye/skin contact - flush with water.

VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case of Release or Spill: Chips and dust should be swept up and placed in suitable container. Prevent release to sinks, drains, sewers, or water runoff.

Waste Disposal Method: Material not known to be a RCRA hazardous waste, follow local requirements.

Precautions to be Taken in Handling and Storing: Use good housekeeping to minimize particle accumulation.

Other precautions: Ventilate welding, brazing and grinding operations.

VIII CONTROL MEASURES

Respiratory Protection: Dust/fume respirator
Local Exhaust: Required for welding, grinding operations
Protective Gloves: As needed based on operations
Eye Protection: As needed

Other Protective Clothing or Equipment: May be needed for welding or grinding

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80000 SERIES
10% P.C.W.

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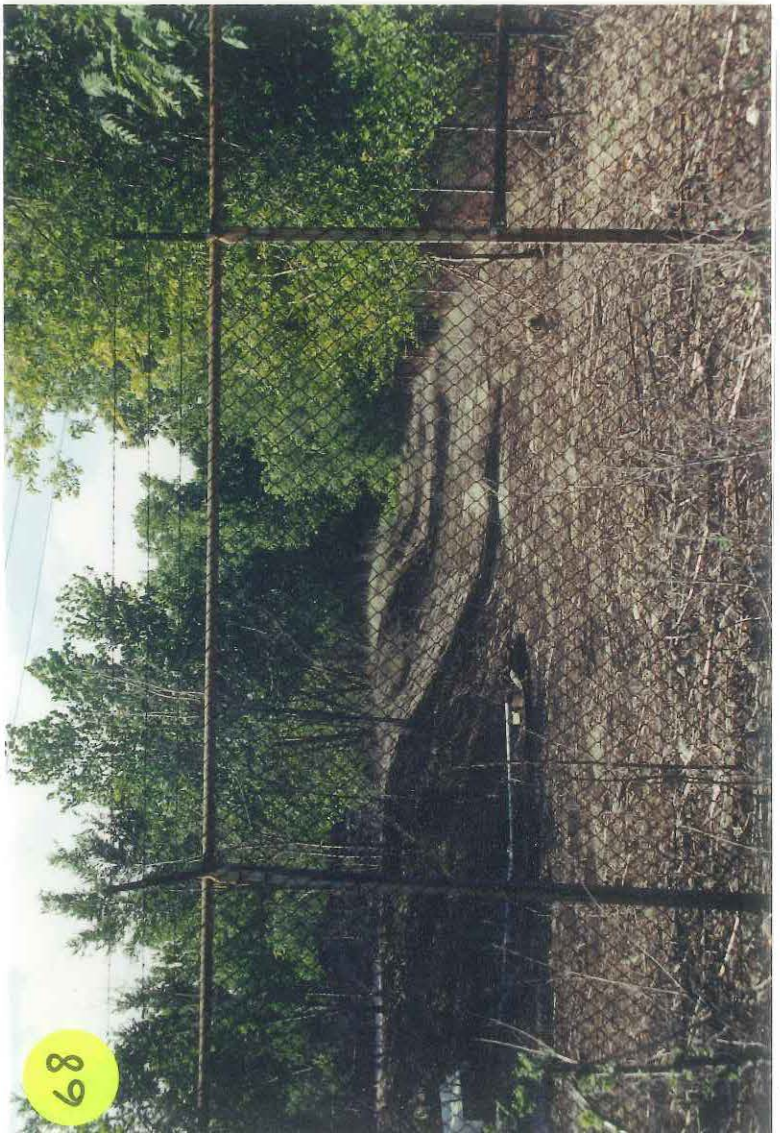
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OCT 19 1998

LAL. # 113738

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 Mary A. Gade, Director

217/782-6762

September 30, 1998
Application Received: 07/02/98
Permit Issued To:

Waste Stream/Authorization Number 980020
Permit Expires: 9/30/03

Land & Lakes Company
123 N. Northwest Hwy.
P.O. Box 778
Park Ridge, IL 60068

Land & Lakes Company
123 N. Northwest Hwy.
P.O. Box 778
Park Ridge, IL 60068

Waste Name: Oil Contaminated Pigs
Waste Class 80 Non-Haz Not Subject to Fee

Permit To Receive the Indicated Waste is Granted.

Receiving Facility Name: River Bend Prairie
IEPA Facility No.: 0310690003

Disposition of Waste: 25

Waste Treatment: Bulk or containerized mixed with daily refuse.

Storage:

Attention: Ken Morris
Waste Generator: Sheffield Steel Corporation

IEPA Generator No.: 1970455019
Sheffield Steel Corporation
P.O. Box 727
Joliet, IL 60434

This permit is granted subject to the attached standard conditions and any special conditions listed below.

1. In renewing Permit No. 980020, the Agency has relied on a statement by the operator of this facility in an LPC-PA15 form received 06/10/93 that a demonstration shall be made that a unit or units within this facility either do or will meet the standards described in 35 Ill. Adm. Code, Part 814, Subpart C.

In the event that such a demonstration is not made, the Agency may seek revocation of this permit pursuant to 35 Ill. Adm. Code, Section 807.212 and/or may initiate enforcement action. The objectives of such endorcement action may include exhumantion of all waste disposed under this renewed permit.

This special Waste may only be disposed in units which meet the requirements of 35 Ill. Adm. Code Part 814.

LAND AND LAKES

Generic Permit Authorization Issued to:

SITE ADDRESS

Sheffield Steel Corp.
P.O. Box 727
Joliet, Illinois 60434
Attention: Ken Morris

Sheffield Steel Corp.
1 Industrial Avenue
Joliet, Illinois 60434

Phone Number: (815) 723-9335

Generator IEPA No.: 1970455019

Generic Waste Name: Oil Contaminated Absorbent Pigs

Waste Status: Non-Hazardous

Approved Date 09/23/97

Authorization No.: N/A (Leave blank or use 000000)

Expiration Date 12/31/99

Land and Lakes Approval No.: 112326

Landfill Information: Harbor View

2000 East 122nd Street

Chicago, IL 60633

Phone Number: (773) 646-1138

Landfill IEPA No: 0316000034

Landfill payment at time of disposal by prior approved account, money order, cashier's check, certified check or cash, only.

Permit Granted Subject to: Waste Contains No Free Liquids. Waste Must Have Flash Point > 140° F. Waste Must Be Hauled By an IEPA Licensed Special Waste Hauler.

Amanda R. Miller

Amanda R. Miller
Manager, Special Waste
Land and Lakes Company

123 North Northwest Highway P.O. Box 778 Park Ridge, Illinois 60068-0778
Tel 847 825 5000 Fax 847 825 0867

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 Mary A. Gade, Director

RECEIVED

AUG 24 1998

Ans'd

217/782-6762

AUGUST 13, 1998 WASTE STREAM/AUTHORIZATION NUMBER 980000
APPLICATION RECEIVED: 07/02/98 PERMIT EXPIRES: 08/11/03
PERMIT ISSUED TO:

LAND & LAKES COMPANY
123 N NORTHWEST HWY
P.O. BOX 778
PARK RIDGE IL
60068

LAND & LAKES COMPANY
123 N NORTHWEST HWY
P.O. BOX 778
PARK RIDGE IL
60068

WASTE NAME: BEARING GREASE
WASTE CLASS 80 NON-HAZ NOT SUBJECT TO FEE

LALC # 113522

PERMIT TO RECEIVE THE INDICATED WASTE IS GRANTED.

RECEIVING FACILITY NAME: RIVER BEND PRAIRIE
IEPA FACILITY NO.: 0310690003

DISPOSITION OF WASTE: 25
BULK OR CONTAINERIZED MIXED WITH DAILY REFUSE

WASTE TREATMENT:

STORAGE:

ATTENTION: KEN MORRIS IEPA GENERATOR NO.: 1970455019
WASTE GENERATOR: SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL
60434

THIS PERMIT IS GRANTED SUBJECT TO THE ATTACHED STANDARD CONDITIONS AND ANY SPECIAL CONDITIONS LISTED BELOW.

1. IN ISSUING PERMIT NO. 980000, THE AGENCY HAS RELIED ON A STATEMENT BY THE OPERATOR OF THIS FACILITY IN AN LPC-PA15 FORM RECEIVED 06/10/93 THAT A DEMONSTRATION SHALL BE MADE THAT A UNIT OR UNITS WITHIN THIS FACILITY EITHER DO OR WILL MEET THE STANDARDS DESCRIBED IN 35 ILL. ADM. CODE, PART 814, SUBPART C.

IN THE EVENT THAT SUCH A DEMONSTRATION IS NOT MADE, THE AGENCY MAY SEEK REVOCATION OF THIS PERMIT PURSUANT TO 35 ILL. ADM. CODE, SECTION 807.212 AND/OR MAY INITIATE ENFORCEMENT ACTION. THE OBJECTIVES OF SUCH ENFORCEMENT ACTION MAY INCLUDE EXHUMATION OF ALL WASTE DISPOSED UNDER THIS PERMIT.

THIS SPECIAL WASTE MAY ONLY BE DISPOSED IN UNITS WHICH MEET THE REQUIREMENTS OF 35 ILL. ADM. CODE PART 814.

Printed on Recycled Paper

LAND AND LAKES

Generic Permit Authorization Issued to:

Sheffield Steel Corp.
P.O. Box 727
Joliet, Illinois 60434
Attention: Ken Morris

SITE ADDRESS

Sheffield Steel Corp.
1 Industrial Avenue
Joliet, Illinois 60434

Phone Number: (815) 723-9335

Generator IEPA No.: 1970455019

Generic Waste Name: Bearing Grease

Waste Status: Non-Hazardous

Approved Date 09/29/97

Authorization No.: N/A (Leave blank or use 000000)

Expiration Date 12/31/99

Land and Lakes Approval No.: 112342

Landfill Information: Harbor View

2000 East 122nd Street

Chicago, IL 60633

Phone Number: (773) 646-1138

Landfill IEPA No: 0316000034

Landfill payment at time of disposal by prior approved account, money order, cashier's check, certified check or cash, only.

Permit Granted Subject to: Waste Contains No Free Liquids. Waste Must Have Flash Point > 140° F. Waste Must Be Hauled By an IEPA Licensed Special Waste Hauler.

Amanda R. Miller

Amanda R. Miller
Manager, Special Waste
Land and Lakes Company

123 North Northwest Highway P.O. Box 778 Park Ridge, Illinois 60068-0778
Tel 847 825-5000 Fax 847 825-0882

Mobil

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 05/04/89

********** I. PRODUCT IDENTIFICATION **********

MOBILGREASE SM

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
STEEL MILL GREASE

HEALTH EMERGENCY TELEPHONE:
(212) 883-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: BLACK GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 1650.0 AT 40 C, CS: 330.0
VISCOSITY AT 210 F, SUS: 112.5 AT 100 C, CS: 22.5
FLASH POINT F(C): > 400(204) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.878 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1
NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. INGREDIENTS **********

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3	EXPOSURE LIMITS PPM	SOURCES (AND NOTES)
POTENTIALLY HAZARDOUS INGREDIENTS:				
NONE				
OTHER INGREDIENTS:				
REFINED MINERAL OILS	>55			
ADDITIVES AND/OR OTHER INGREDS.	<10			
LITHIUM-SOAP THICKENER	<10			
PETROLEUM ASPHALTS	<30			

SEE SECTION XII FOR COMPONENT REGULATORY INFORMATION.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

EFFECTS OF OVEREXPOSURE: SLIGHT EYE IRRITATION. SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 400(204) (ASTM D-92)

FLAMMABLE LIMITS. LEL: .6 UEL: 7.0

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: EXTREME HEAT

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT: DISPOSE OF WASTE AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.

SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.

RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********

NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. TWO YEAR MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

D.O.T. SHIPPING NAME: NOT APPLICABLE

D.O.T. HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE METALS CITED IN THE EP TOXICITY TEST. HOWEVER, USED PRODUCT MAY BE REGULATED.

THIS PRODUCT HAS BEEN USDA APPROVED UNDER THE FOLLOWING CATEGORY: H2 - LUBRICANTS WITH NO FOOD CONTACT

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS THE FOLLOWING SARA (313) TOXIC RELEASE CHEMICALS:

ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	1.07%

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ASPHALT (PETROLEUM)	8052-42-4	2,7,9,10,12,13,14, 16
ZINC (ELEMENTAL ANALYSIS) (0.12%)	7440-66-6	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

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PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (703) 849-3265

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: MTR248001) MCN: , MHC: 1* 1* NA 1* 1*, MPPEC: A, PPEC: A, US86-369 APPROVE 05/04/89

Mobil

SWEENEY OIL CO.
581-4800

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 12/08/89

********** I. PRODUCT IDENTIFICATION **********

MOBILUX EP 023

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
INDUSTRIAL GREASE

HEALTH EMERGENCY TELEPHONE:
(609) 737-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: BROWN GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 1685.0 AT 40 C, CS: 337.0
VISCOSITY AT 210 F, SUS: 115.0 AT 100 C, CS: 23.0
FLASH POINT F(C): > 400(204) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): NE
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.91 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1
NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. INGREDIENTS **********

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3	EXPOSURE LIMITS PPM	SOURCES (AND NOTES)
POTENTIALLY HAZARDOUS INGREDIENTS:				
NONE				
OTHER INGREDIENTS:				
REFINED MINERAL OILS	>90			
ADDITIVES AND/OR OTHER INGREDS.	<10			
LITHIUM-SOAP THICKENER	< 5			
PETROLEUM ASPHALTS	< 5			

SEE SECTION XII FOR COMPONENT REGULATORY INFORMATION.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---
EFFECTS OF OVEREXPOSURE: SLIGHT EYE IRRITATION. SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 400(204) (ASTM D-92)

FLAMMABLE LIMITS. LEL: NE UEL: NE

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: EXTREME HEAT

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE. METAL OXIDES. HYDROGEN SULFIDE. NITROGEN OXIDES.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT: DISPOSE OF WASTE AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.

SKIN PROTECTION: IF PROLONGED OR REPEATED SKIN CONTACT IS LIKELY, OIL IMPERVIOUS GLOVES SHOULD BE WORN. GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.

RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********

NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. TWO YEAR MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

D.O.T. SHIPPING NAME: NOT APPLICABLE

D.O.T. HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE METALS CITED IN THE EP TOXICITY TEST. HOWEVER, USED PRODUCT MAY BE REGULATED.

THIS PRODUCT HAS BEEN USDA APPROVED UNDER THE FOLLOWING CATEGORY: H2 - LUBRICANTS WITH NO FOOD CONTACT

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS THE FOLLOWING SARA (313) TOXIC RELEASE CHEMICALS:

ZEINS (ZINC RESINATE)	9010-69-9	1%
ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	1.28%

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZEINS (ZINC RESINATE)	9010-69-9	9
CHLORINE (ELEMENTAL ANALYSIS) (0.6%)	7782-50-5	15
ZINC (ELEMENTAL ANALYSIS) (0.14%)	7440-66-6	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

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INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION. PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FA FAX, VA 22037 (703) 849-3265

********** APPENDIX **********

FOR MOBIL USE ON : (FILL NO: RR175A000A1) MCN: HC: 1* 1* NA 1* 1*, MPPEC: A, PPEC: A, US86-167 APPROVE 05/04/89

EXXON COMPANY, U.S.A.
A DIVISION OF EXXON CORPORATION

DATE ISSUED: 01/24/95
SUPERSEDES DATE: 12/15/94

MATERIAL SAFETY DATA SHEET

EXXON COMPANY, U.S.A. P.O. BOX 2180 HOUSTON, TX 77252-2180

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
FIREXX GREASE 1

PRODUCT CODE
425215 - 05215

PRODUCT CATEGORY
Petroleum Lubricating Grease

PRODUCT APPEARANCE AND ODOR
Soft black grease
Mild sulfurous odor

MEDICAL EMERGENCY TELEPHONE NUMBER
(713) 656-3424

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS NO. OF COMPONENTS	APPROXIMATE CONCENTRATION
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	Greater than 66%
and	and	
Distillates (petroleum), solvent-dewaxed heavy naphthenic	64742-63-8	
and	and	
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	
or	or	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	
and	and	
Aluminum, benzoate hydrogenated tallow fatty acid iso-Pr alc. complexes	68647-58-5	
Asphalt	8052-42-4	Approximately 13%
Proprietary additives	Mixture	Less than 21%

All components of this product are listed on the U.S. TSCA inventory.

See Section E for Health and Hazard Information.

See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	Flammability	Reactivity	BASIS
1	1	0	Recommended by Exxon

EXPOSURE LIMIT FOR TOTAL PRODUCT	BASIS
5 mg/m3 for oil mist (aerosol) for an 8-hour workday	OSHA Regulation 29 CFR 1910.1000 and recommended by the American Conference of Governmental Industrial Hygienists (ACGIH). ACGIH states that the air is to be sampled by a method that does not collect vapor; in addition, it lists a 10 mg/m3 STEL.

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
If lubricant gets into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN
In case of skin contact, remove any contaminated clothing and wash skin with soap and water. Launder or dry-clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION
Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. If overexposed to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION
If ingested, DO NOT induce vomiting; call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)
204°C (400°F)
ASTM D 92, Cleveland Open Cup

AUTOIGNITION TEMPERATURE
Greater than 260°C (500°F)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION

Health	Flammability	Reactivity	BASIS
1	1	0	Recommended by Exxon

HANDLING PRECAUTIONS
Use product with caution around heat, sparks, pilot lights, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)
Estimated values: Lower Flammable Limit 0.9% Upper Flammable Limit 7%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Tenth Edition (1991):

Use water spray, dry chemical, foam or carbon dioxide to extinguish the fire. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, carbon monoxide, sulfur oxides, metal oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING
"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

"Empty" drum liners retain residue (solid, liquid, and/or vapor) that will burn and can be dangerous. Keep away from heat, sparks, flames, static electricity or other sources of ignition. Do not reuse liners for any purpose whatsoever. Liners should be emptied of contents to the maximum extent practical, then segregated from liners containing other products. Dispose of "empty" liners in an environmentally safe manner and in accordance with governmental regulations.

E. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS
Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure)
Prolonged or repeated skin contact may cause skin irritation.

NATURE OF HAZARD AND TOXICITY INFORMATION
Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection.

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE
None recognized

F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE
IBP Approximately 274°C (525°F)
by ASTM D 2887

SPECIFIC GRAVITY (15.6°C/15.6°C)
0.95

VAPOR PRESSURE
Less than 0.01 mm Hg @ 20°C

VAPOR DENSITY (AIR = 1)
Greater than 5

MOLECULAR WEIGHT
Not determined

pH
Essentially neutral

POUR, CONGEALING OR MELTING POINT
235°C (455°F)
Dropping Point by ASTM D 2265

VISCOSITY
300 Worked penetration, mm/10, @ 25°C, ASTM D 217

PERCENT VOLATILE BY VOLUME
Negligible from open container in 4 hours @ 38°C (100°F)

EVAPORATION RATE @ 1 ATM. AND 25°C (77°F) (n-BUTYL ACETATE = 1)
Less than 0.01

SOLUBILITY IN WATER @ 1 ATM. AND 25°C (77°F)
Negligible; less than 0.1%

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc., as this presents a serious explosion hazard.

H. ENVIRONMENTAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Recover free product. Add sand, earth, or other suitable absorbent to spill area. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.
Assure conformity with applicable governmental regulations.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 302 (CERCLA Section 102)
This Exxon product contains the RQ substance Kolate 7013 and a release of 4608 pounds of this Exxon product exceeds the CERCLA RQ and must be reported to the National Spill Response Center (1-800-424-8802).

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)
No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)
This product contains approximately 2% zinc compounds.

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)

EPA HAZARD CLASSIFICATION CODE:	Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable
						XXX

I. PROTECTION AND PRECAUTIONS

VENTILATION
Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources.

RESPIRATORY PROTECTION
Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES
Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION
Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT
Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS
Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants.

In order to prevent fire or explosion hazards, use appropriate equipment.

Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NFPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

PERSONAL HYGIENE
Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before re-use. Remove contaminated shoes and thoroughly clean before re-use; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents.

U.S. DOT HAZARDOUS MATERIALS SHIPPING DESCRIPTION
Not regulated

OSHA REQUIRED LABEL INFORMATION
In compliance with hazard and right-to-know requirements, where applicable OSHA Hazard Warnings may be found on the label, bill of lading or invoice accompanying this shipment.

Note: Product label may contain non-OSHA related information also.

The information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS) and National Fire Protection

Association (NFPA) ratings have been included by Exxon Company, U.S.A. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Exxon's interpretation of the available data.

FOR LUBRICANTS TECHNICAL ASSISTANCE CALL: 1-800-443-9966

FOR FUELS TECHNICAL ASSISTANCE CALL: 713-656-4955

FOR AN MSDS OR ASSISTANCE WITH AN MSDS, DIRECT INQUIRIES TO THE ADDRESS BELOW OR CALL:

MARKETING TECHNICAL SERVICES
EXXON COMPANY, U.S.A.
ROOM 2345
P. O. BOX 2180
HOUSTON, TX 77252-2180
(713) 656-5949

IF YOU HAVE AN IMMEDIATE NEED FOR AN MSDS, DIAL 1-800-298-4007 FOR A FAXED COPY.

Mobil

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

********** I. PRODUCT IDENTIFICATION **********

MOBILUX EP 2

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
EXTREME PRESSURE GREASE

HEALTH EMERGENCY TELEPHONE:
(212) 883-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: MEDIUM BROWN GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 900.0 AT 40 C, CS: 170.0
VISCOSITY AT 210 F, SUS: 75.0 AT 100 C, CS: 14.5
FLASH POINT F(C): >400(204) (EST (OIL COC))
MELTING POINT F(C): NA POUR POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.879 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1
NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. INGREDIENTS **********

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3	PPM	SOURCES (AND NOTES)
HAZARDOUS INGREDIENTS:				
NONE				
OTHER INGREDIENTS:				
REFINED MINERAL OILS	>80			
ADDITIVES AND/OR OTHER INGREDS.	<10			
LITHIUM-SOAP THICKENER	<10			

KEY TO SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

EFFECTS OF OVEREXPOSURE: SLIGHT EYE IRRITATION. SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

EYE CONTACT: FLUSH WITH WATER.
SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER.
INHALATION: NOT EXPECTED TO OCCUR IN NORMAL INDUSTRIAL USE.
INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********
FLASH POINT F(C): > 400(204) (EST (OIL COC))
FLAMMABLE LIMITS. LEL: .6 UEL: 7.0
EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.
SPECIAL FIRE FIGHTING PROCEDURES: FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

********** VII. REACTIVITY DATA **********
STABILITY (THERMAL, LIGHT, ETC.): STABLE
CONDITIONS TO AVOID: EXTREME HEAT
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********
ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: SCRAPE UP AND REMOVE. DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.
WASTE MANAGEMENT: DISSOLVE WASTE IN A SOLVENT AND DISPOSE BY SUPERVISED INCINERATION IN COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS.

********** IX. SPECIAL PROTECTION INFORMATION **********
EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.
SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********
HANDLING: NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE---

ORAL TOXICITY (RATS): LD50: > 5 G/KG 0/10 RATS DIED AT THIS DOSAGE LEVEL. SLIGHTLY TOXIC(ESTIMATED) ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG 0/06 RABBITS DIED AT THIS DOSAGE LEVEL. SLIGHTLY TOXIC(ESTIMATED) ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION. EYE IRRITATION SCORES: 4.3 AT 1 HOUR, 1.7 AT 24 HOURS, 0.7 AT 48 HOURS, 0 AT 72 HOURS---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. PRIMARY IRRITATION SCORE: 1.5/8---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBACUTE AND MUTAGENICITY (SUMMARY)---

***NEGATIVE AMES TEST.

********** XII. REGULATORY INFORMATION **********

TSCA INVENTORY STATUS: ALL COMPONENTS ARE REGISTERED.
EINECS INVENTORY STATUS: ALL COMPONENTS ARE REGISTERED.
THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
*** NO INGREDIENT CITATIONS ***		

--- KEY TO LIST CITATIONS ---

1 = OSHA, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = NJ SHM,
16 = FL RTK, 17 = PA RTK.

****

FOR MOBIL USE ONLY: (FILL NO: RR175A2*404) MHC: 1* 1* NA 1* 1* PPEC: US83-100 APPROVE REVISED: 03/27/85

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (703) 849-3265

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

KLEEN-PAX
RECYCLED
80000 SERIES
10% P.C.W.

American Chemical Technologies, Inc.
46915 Liberty Drive Wixom, Michigan 48393
(248) 624-1550
FAX: (248) 624-2366

EMERGENCY: INFOTRAC 1-800-535-5053 24 HR/DAY, 7 DAYS/WEEK

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: FR WG 200-D
GENERIC ID: FIRE RETARDENT WATER GLYCOL HYDRAULIC FLUID
DOT HAZARD CLASSIFICATION: NOT APPLICABLE

SECTION II - COMPONENTS

CAS OR CHEMICAL NAME: DIETHYLENE GLYCOL
CAS NUMBER: 111-46-6
PERCENTAGE RATE: < 40%
HAZARDOUS PER 29 CFR 1910.1200: YES
EXPOSURE STANDARD: NONE ESTABLISHED

CAS OR CHEMICAL NAME: POLYALKYLENE GLYCOL
CAS NUMBER: 52624-57-4
PERCENTAGE RATE: < 13%
HAZARDOUS PER 29 CFR 1910.1200: YES
EXPOSURE STANDARD: NONE ESTABLISHED

CAS OR CHEMICAL NAME: DIPAE
CAS NUMBER: 96-80-0
PERCENTAGE RATE: <3%
HAZARDOUS PER 29 CFR 1910.1200: YES
EXPOSURE STANDARD: NONE ESTABLISHED

CAS OR CHEMICAL NAME: D/I WATER
CAS NUMBER: 7732-18-5
PERCENTAGE RATE: 35-45%
HAZARDOUS PER 20 CFR 1910.1200: NO
EXPOSURE STANDARDS: NONE ESTABLISHED

THIS PRODUCT CONTAINS NO INGREDIENTS LISTED AS CARCINOGENS BY NTP, IARC, OR OSHA.

THIS PRODUCT CONTAINS NO TOXIC CHEMICAL AT A LEVEL WHICH IS REPORTABLE UNDER SARA TITLE III, SECTION 313.

SECTION III - PHYSICAL DATA

BOILING POINT/MELTING POINT @ 760 mm Hg: 215 °F
VAPOR PRESSURE mm Hg @ 20 °C: NOT APPLICABLE
SPECIFIC GRAVITY OR BULK DENSITY: 9.05 lb/gal.
SOLUBILITY IN WATER: COMPLETE
pH: 9.6
POUR POINT: -53 °F
APPEARANCE: CLEAR, RED LIQUID
ODOR: GLYCOL TYPE
INTENSITY: SLIGHT

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLASH POINT: NONE (*)
AUTOIGNITION TEMP: NONE (**)
FLAMMABILITY LIMITS IN AIR (% BY VOL): LOWER: N/A UPPER: N/A
EXTINGUISHING MEDIA: USE WATER FOG, FOAM OR C02 EXTINGUISHING MEDIA.
FIREFIGHTING PROCEDURES: FIRE FIGHTERS SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS AND TURNOUT GEAR.

(* : AFTER WATER HAS BEEN COMPLETELY EVAPORATED, FLASH POINT IS 250°F).
(**: AFTER WATER HAS BEEN COMPLETELY EVAPORATED, AUTOIGNITION TEMPERATURE IS 775°F).

NFPA CODES: HEALTH - 1 FLAMMABILITY - 0 REACTIVITY - 0

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:
THE PRIMARY ROUTES OF EXPOSURE TO THIS MATERIAL ARE EYE OR SKIN CONTACT, AND INHALATION. PROLONGED OR REPEATED SKIN OR EYE CONTACT MAY RESULT IN IRRITATION. VAPORS OR MISTS OF DIETHYLENE GLYCOL MAY BE IRRITATING TO THE RESPIRATORY TRACT. THE EFFECTS OF INGESTION INCLUDE NAUSEA, DIARRHEA, DIZZINESS, DROWSINESS, KIDNEY DAMAGE AND POSSIBLE COMA. CHRONIC OVEREXPOSURE TO DIETHYLENE GLYCOL MAY RESULT IN KIDNEY AND LIVER DAMAGE.

EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO THIS MATERIAL: NO INFORMATION FOUND FOR THIS MIXTURE.

FIRST AID:
IF ON SKIN: WASH AFFECTED AREAS WITH SOAP AND WATER. REMOVE AND LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. IF IRRITATION DEVELOPS, GET MEDICAL ATTENTION.
IF IN EYES: IMMEDIATELY RINSE EYES WITH RUNNING WATER FOR 15 MINUTES. IF IRRITATION DEVELOPS GET MEDICAL ATTENTION.

SECTION V - HEALTH HAZARD DATA (CONTINUED)

FIRST AID (CONTINUED):

INGESTION: IF SWALLOWED, DILUTE WITH WATER AND IMMEDIATELY INDUCE VOMITING. NEVER GIVE FLUIDS OR INDUCE VOMITING IF THE VICTIM IS UNCONSCIOUS OR HAVING CONVULSIONS. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION: MOVE TO FRESH AIR. AID IN BREATHING, IF NECESSARY, AND GET MEDICAL ATTENTION.

TOXICOLOGICAL TEST DATA:	RESULT:
RAT, ORAL LD	>5000 mg/kg
RABBIT, SKIN IRRITATION	IRRITATING
RABBIT, EYE IRRITATION	IRRITATING

SECTION VI - REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID: N/A
CHEMICAL INCOMPATIBILITY: N/A
HAZARDOUS DECOMPOSITION PRODUCTS: N/A
HAZARDOUS POLYMERIZATION: DOES NOT OCCUR
CONDITIONS TO AVOID: CORROSIVE TO TIN, LEAD, ZINC, MAGNESIUM, AND CALCIUM.
OXIDIZER: NO

SECTION VII - SPECIAL PROTECTION

RESPIRATORY PROTECTION:
IF VAPORS OR MISTS ARE GENERATED, WEAR A NIOSH/MSHA APPROVED ORGANIC VAPOR/MIST RESPIRATOR.

EYE PROTECTION:
CHEMICAL GOGGLES; ALSO WEAR A FACE SHIELD IF SPLASHING HAZARD EXISTS.

PROTECTIVE CLOTHING:
GLOVES, COVERALLS, APRON, BOOTS AS NECESSARY TO PREVENT SKIN CONTACT

VENTILATION:
USE LOCAL EXHAUST TO CONTROL VAPORS/MISTS.

OTHER:
NOT APPLICABLE

SECTION VIII - ENVIROMENTAL DATA

ENVIROMENTAL TOXICITY DATA:
FISH TOXICITY: LC..: >1000 mg/l (FATHEAD MINNOW, 96 HR)

SECTION VIII - ENVIRONMENTAL DATA (CONTINUED)

SPILL AND LEAK PROCEDURES:

SPILL SHOULD BE CONTAINED, SOLIDIFIED, AND PLACED IN SUITABLE CONTAINERS FOR DISPOSAL. THIS MATERIAL IS NOT REGULATED UNDER RCRA OR CERCLA ("SUPERFUND")

HAZARDOUS SUBSTANCE SUPERFUND: NO RQ (lbs):

WASTE DISPOSAL METHOD:

DO NOT DISCHARGE INTO WATERWAYS OR SEWER SYSTEMS. DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

STORE IN A COOL DRY PLACE. KEEP CONTAINER CLOSED. AVOID PROLONGED CONTACT WITH SKIN OR CLOTHING. AVOID EXTREME HEAT.

THIS PRODUCT DOES NOT CONTAIN OR MANUFACTURED WITH CLASS I OR CLASS II OZONE-DEPLETING SUBSTANCES.

NAME OF PREPARER: AIDA B. MAXSAM
REVISION DATE: 11/06/98
SUPERSEDES: 07/01/98

A.C.T., INC. BELIEVES THE DATA SET FORTH HEREIN ARE ACCURATE AS OF THE DATA HEREOF. WE MAKE NO WARRANTY WITH RESPECT THERE TO AND EXPRESSLY DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. SUCH DATA ARE OFFERED SOLELY FOR YOUR CONSIDERATION, INVESTIGATION AND VERIFICATION.

K

RECYCLED
80000 SERIES
10% P.C.W.

Material Safety Data Sheet

Chempet 6512 Cleaner

QUICK IDENTIFIER
Common Name: (used on label and list)

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910. 1200. Standard must be consulted for specific requirements.

SECTION 1 -

Manufacturer's Name	Chempet Corp.		
Address	1750 Armitage Ct.	Emergency Telephone No.	(312) 495-4540
City, State, and ZIP	Addison, IL 60101	Other Information Calls	
Signature of Person Responsible for Preparation (Optional)		Date Prepared	2/89

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV mg/m3	Other Exposure Limits	% (optional)	CAS NO.
Potassium hydroxide; 45%		C2		2.5	1310-58-3

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point	212	Specific Gravity (H,O=1)	1.16	Vapor Pressure (mm Hg)	N/A
		Vapor Density (Air = 1)	N/A		
Solubility in Water	Complete	Reactivity in Water	N/A		
Appearance and Odor	Straw yellow liquid/ mild odor	Melting Point	N.A.		

SECTION 4 – FIRE & EXPLOSION DATA

Flash Point	N/A °F C.	Method Used	N/A	Flammable Limits in Air % by Volume	LEL Lower	N/A	UEL Upper N/A
Auto-Ignition Temperature	N/A	Extinguisher Media	None required				
Special Fire Fighting Procedures	None						
Unusual Fire and Explosion Hazards	None						

SECTION 5 – PHYSICAL HAZARDS (REACTIVITY DATA)

Stability: Unstable ☐ Stable ☒ — Conditions to Avoid: N/A

Incompatability (Materials to Avoid): None

Hazardous Decomposition Products: None

Hazardous Polymerization: May Occur ☐ Will Not Occur ☒ — Conditions to Avoid: N/A

SECTION 6 – HEALTH HAZARDS

1. Acute: Eye contact
2. Chronic: Skin irritation

Signs and Symptoms of Exposure: Burning of eyes, skin irritation

Medical Conditions Generally Aggravated by Exposure: Dermititis of skin - reddening of eyes

Chemical Listed as Carcinogen or Potential Carcinogen — National Toxicology Program: Yes ☐ No ☒ — I.A.R.C. Monographs: Yes ☐ No ☒ — OSHA: Yes ☐ No ☒

Emergency and First Aid Procedures: See below.

ROUTES OF ENTRY

1. Inhalation: N/A
2. Eyes: Flush withcopious amounts of cool water
3. Skin: Wash with water
4. Ingestion: Drink dilute vinegar or fruit juice. Consult a physician

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Store in cool, dry area. Keep container closed when not in use.

Other Precautions: Keep from freezing

Steps to be Taken in Case Material is Released or Spilled: Mop up excess. Wash down area with water.

Waste Disposal Methods (Consult federal, state, and local regulations): In accordance to federal, state, & local regulation

SECTION 8 – SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type): N/A

Ventilation: Local Exhaust X — Mechanical (General): — Special: — Other:

Protective Gloves: Rubber or chemical resistant — Eye Protection: Safety glasses or goggles

Other Protective Clothing or Equipment: None

Work/Hygienic Practices: Normal good work & housekeeping practices.

MPORTANT

not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

L

M

One Brickman Way
Elgin, Illinois 60123-7857
CUSTOMER NO.

WECARE

DUNS NO. 05106-0406 FED. ID NO. 36-3050015

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	03/14/98	98-02	37	172021

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	452.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER

GENERATOR	BILL TO
S-034-05-0326	S-034-05-0326
SHEFFIELD STEEL	SHEFFIELD STEEL
ONE INDUSTRY AVE	ATTN ACCTS PAY
P.O. BOX 727	PO BOX 727
JOLIET IL 60434	JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE#	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
1-16-98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GIV
1	00	23150	23036450		1	175.75	0.00	175.75	26.36	12	7	1	975		14							
2	00	33150	33007754		1	245.50	0.00	245.50	36.83	3	Ø	1	975		14							
3	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	30	3	10083		4							
4	00	44000	44115489		1	269.25	0.00	269.25	0.00	34	30	3	10083		8							
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
		TOTAL-SERVICE/PRODUCTS				916.50	0.00	916.50	63.19													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984909202	ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	$16.39
A.	WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D039,D008,D018,D040)(ERG#128)6.7#/GAL	1	DM	7	G	975	1
B.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	60	G	10083	4
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — N.B. INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	388

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

By: Wayne Briker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	916.50
WASTE MIN. (FROM ABOVE)	63.19
TOTAL DUE	916.50

DO NOT WRITE IN THE AREA BELOW

172021
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

K54214-R5732 SAFETY-KLEEN CORP. 12/22/97 PAGE:
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 16:56:09

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER 172021 THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 9644 SOLVENT 150 D039 SKDOT#: 0000975
WASTE CODE(S): D039 D008 D018 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

WASTE NAME: 662 SOLVENT 105 30GAL DRUMS D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **	
D006	CADMIUM (CD)	1.0	MG/L TCLP
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 848 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 172021 SW: 98

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinckman Way
Elgin, Illinois 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	04/11/98	98-06	17	042559

CUSTOMER NO. 5-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	879.67	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	393	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

5-034-05-0326
BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2-9-98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	32	3	10083		4							
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
	TOTAL-SERVICE/PRODUCTS					226.00	0.00	226.00	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD015759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5163055
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(0001) (0006,0008,0018,0027,0039,0040)(ERG#128)	2	DM	32	G	10083	2
B.							
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — Y.C.H. INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	368

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Clifton Holmes
Print Customer Name

By: Clifton Holmes
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	226
WASTE MIN. (FROM ABOVE)	—
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW

042559
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54214-R5732 SAFETY-KLEEN CORP. 01/26/98 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 17:10:55

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (042559.) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 30GAL DRUMS D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 1051 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 42559 SW: 9806

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinckman Way
Elgin, Ill 60123-7857

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULE TERRITOR	REFERENCE NUMBER
708-201-2600	DICK WHEELER	05/09/98	98-10	17	999398

CUSTOMER NO. 5-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1105.67	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P
09	NO	NO	393	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER / GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
3/13/98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	30	3	10083		4						
2	00	44000	44115489		1	269.25	0.00	269.25	0.00	34	30	3	10083		8						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					495.25	0.00	495.25	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS			DECALS IN PLACE AND LEGIBLE			MACHINE PROPERLY GROUNDED		
LAMP ASSEMBLY CONDITION			FUSIBLE LINK INSTALLED			LOCAL PHONE NO. STICKER AFFIXED TO MACHINE		
			EMERGENCY CLOSING OF LID UNOBSTRUCTED			SPENT SOLVENT MEETS ACCEPTANCE CRITERIA		

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD015759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	516305	5	4
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	58	G	10083			4
B. 14,14 15,5,								
C.								
D.								

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS
633 E 138TH ST SAFETY-KLEEN CORP. DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →
CREDIT CARD NO. AMEX VISA MC EXP. DATE
CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ*0

MANIFEST CODE	SEQ #
PP	400

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

ROBT. L. LARSON
Print Customer Name
By: [signature]
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	495.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	495.25

DO NOT WRITE IN THE AREA BELOW
999398
5-034-05-2046-8

SERVICE AND CALLS ACCURATE EXCEPT AS

K54214-R5732 SAFETY-KLEEN CORP. 02/23/98 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 17:50:17

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (999398..) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

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NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 1632 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 999398 SW: 9810

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

Elgin Illinois 23-7857 WE CARE

CUSTOMER NO: S-034-05-0326-2046

FOR SERVICE CAI	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	06/06/98	98-14	17	893044

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	495.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
6-6-98	379		815-723-9335	14-595-3969					.0775

DEPT	SERVICE PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSD GIVE
00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	2K	3	10083		4							
																				WE CARE	
TOTAL-SERVICE/PRODUCTS					226.00	0.00	226.00	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
2	DM	28	G	10083

RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)
NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)

14.14

516 30 55 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — X RJCJr. INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ | TOTAL RECEIVED | APPLY PAYMENT TO:
CHECK NUMBER | ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ*D

MANIFEST CODE	SEQ #
PP	398

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

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"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X Robert J. Caveda Jr.
Print Customer Name

X Robert J. Caveda Jr.
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	226
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW

893044
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (893044) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **	
D006	CADMIUM (CD)	1.0	MG/L TCLP
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

N O T E S

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NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 1082 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 893044 SW: 9814

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinckman Way
Elgin, IL 60123-7857

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	07/04/98	98-18	37	020965

CUSTOMER NO. S-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	226.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
S-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
5-4-98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	32	3	10083		4						
2	00	44000	44115489		1	269.25	0.00	269.25	0.00	34	32	3	10083		8						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					495.25	0.00	495.25	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984903202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	64	G	10083
B.					
C.					
D.					

5163055 4

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — X INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	317

IN THE EVENT OF AN EMERGENCY CALL
1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X ROBERT L. LARSON
Print Customer Name

X R L Larson
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	495.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	495.25

DO NOT WRITE IN THE AREA BELOW

020965
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (020965) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **	
D006	CADMIUM (CD)	1.0	MG/L TCLP
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 916 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 20965 SW: 9818

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

Elgin, Illinois 60123-7857

INVOICE NO. 5-2034-05-2096

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-26	DICK WHEELER	08/01/98	98-22	17	235292

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1079.31	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C.	PROD. P/C
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

S-034-05-0926

BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
6-1-98	3799		815-723-9335	14-595-3969					.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSD GIVE
0044000		44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	34	3	10083		4						
	TOTAL-SERVICE/PRODUCTS				226.00	0.00	226.00	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984904202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)
RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)
NA1993 PGIII(D001) (0006,0008,0018,0027,00390040)(ERG#128)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5	1	6	3	0	5	5
2	DM	34	G	10083							2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — X INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP. 639 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	367

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name

By: X
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW
235292
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (235292.) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 9811 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 235292 SW: 9822

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinckman Way
Elgin, Illinois 60123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	08/29/98	98-26	17	921840

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	721.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER

5-034-05-2046

GENERATOR

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
7-7-98	3634		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00			3	10083		4						12.16
2	00	44000	44115489		1	269.25	0.00	269.25	0.00			3	10083		8						12.17
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
		TOTAL-SERVICE/PRODUCTS				495.25	0.00	495.25	0.00												

WE CARE

2-1-98

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5	1	6	3	0	5	5
1. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	67	G	10083					4		
2.												
3.												
4.												
5.												

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 031069000G

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. ☐ AMEX ☐ VISA ☐ MC EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ*0

MANIFEST CODE	SEQ #
PP	349

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

ROBERT L. LARSON
Print Customer Name

By: Robert L. Larson
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	

DO NOT WRITE IN THE AREA BELOW

921840
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (921840) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 139 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 921840 SW: 9826

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinckman Way
Elgin, Illinois 60123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	09/26/98	98-30	17	961518

CUSTOMER NO.	CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
5-034-05-2046	C	721.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C.	PROD. P
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
8/5/98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	23150	23036450		1	175.75	0.00	175.75	26.36	3	0	1	975		14					
2	00	33150	33007754		1	245.50	0.00	245.50	36.83	17	17	1	975		14					
3	00	44000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	34	3	10083		4					
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
	TOTAL-SERVICE/PRODUCTS					647.25	0.00	647.25	62.19											

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5669055
A. WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D039,D008,D018,D040)(ERG#128)6.7#/GAL	1	DM	17	G	975	1
B. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039,D040)(ERG#128)	2	DM	34	G	10083	2
C.						
D.						

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS VDS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ TOTAL RECEIVED
CHECK NUMBER

APPLY PAYMENT TO:
☐ TODAY'S SERVICE/SALE
☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	374

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name

By Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	647.25
WASTE MIN. (FROM ABOVE)	62.19
TOTAL DUE	620.45

DO NOT WRITE IN THE AREA BELOW

961518
5-034-05-2046-8

SERVICE AND SALES AGREEMENT CONSENT

TO: SAFETY-KLEEN CORP.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (961518..) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 9644 SOLVENT 150 D039 SKDOT#: 0000975
WASTE CODE(S): D039 D008 D018 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **	
D006	CADMIUM (CD)	1.0	MG/L TCLP
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 167 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 961518 SW: 9830

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brickman Way
Elgin, Illin 123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C/	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	10/24/98	98-34	17	525601

6-034-05-2046

CUSTOMER GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

5-034-05-0326
BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	495.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C.	PROD. P/C
09	NO	NO	493	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
8-25-98	5183		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GIV
1	00	44000	44005137	MACHINE SH	1	~~237.25~~	0.00	~~237.25~~	0.00	34	25	3	10083		4				Newly Svc'd		
2	00	44000	44115489		1	282.75	0.00	282.75	0.00	34		3	10083		8						
3																					
4		614	Rush	7.85	1	7.85	.60	8.45													
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
		TOTAL-SERVICE/PRODUCTS				~~520.00~~	0.00	~~520.00~~	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UN/NA WT/VOL	SK DOT NUMBER	5663055
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(0001) (0006,0008,0018,0027,0039,0040)(ERG#128)		DM		G	10083	4
B.						
C.						
D.						

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — X INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	388

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X Ron Varley RO
Print Customer Name

By X Ron Varley
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	282.75

8/31/01

DO NOT WRITE IN THE AREA BELOW

525601
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54214-R5732 SAFETY-KLEEN 08/03/98 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 17:46:55

TO: SAFETY-KLEEN SYSTEMS, INC. EPA ID NO. ILD980613913
633 E 138TH ST (DESIGNATED FACILITY)
DOLTON, IL 60419

UNDER MANIFEST/SALES SERVICE NUMBER (525601.) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 6/30 FOR UT/MN OR ON 12/31 FOR ALL STATES.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 315 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 525601 SW: 9834

One Brinckman Way
Elgin, Illi 0123-7857

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	10/31/98	98-35	17	921255

CUSTOMER NO. 15-M-0-3-4-0-5-2-0-4-6

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	620.89	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P.
09	NO	NO	493	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
9/1/98	5799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	0	044000	44005137	MACHINE SH	1	237.25	0.00	237.25	0.00	34	30	3	1008		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
		TOTAL-SERVICE/PRODUCTS				237.25	0.00	237.25	0.00												

325601 billed only one case
SVS Tech

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759245	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	30	G	10053
B.						
C.						
D.						

15 15

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS JWB
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS
SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	345

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

B) Wayne Barber
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	237.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	237.25

DO NOT WRITE IN THE AREA BELOW
921255
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 19:51:20

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (921255..) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE	
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **	
D006	CADMIUM (CD)	1.0	MG/L TCLP
D008	LEAD (PB)	5.0	MG/L EP OR TCLP
D018	BENZENE	10	MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0	MG/KG ****
D039	TETRACHLOROETHYLENE	6.0	MG/KG ****
D040	TRICHLOROETHYLENE	6.0	MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 6/30 FOR UT/MN OR ON 12/31 FOR ALL STATES.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 9528 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 921255 SW: 9835

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Einckman Way
Elgin, Illi 0123-7857
CUS. JMER NO.

WE CARE

DUNS NO: 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	12/19/98	98-42	17	931856

CUSTOMER NO.
5-0234-05-2044

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	527.85	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	493	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER (GENERATOR)
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
10/20/98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GIV
1	004	4000	44115489		1	282.75	0.00	282.75	0.00	34	34	3	10083		8						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTAL-SERVICE/PRODUCTS						282.75	0.00	282.75	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	L970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(0001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083
B.					
C.					
D.					

5166 3055
2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	292

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

WILLIAM SCOTT
Print Customer Name
By: [signature] 002
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	282 —

DO NOT WRITE IN THE AREA BELOW
931856
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54214-R5732 SAFETY-KLEEN 09/28/98 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 18:20:00

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (931856.) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D006	CADMIUM (CD)	0.11 MG/L ******
D006	CADMIUM CONTAINING BATTERIES SUBCATEGORY	RTHRM ******
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D008	LEAD (PB)	0.75 MG/L ******
D008	LEAD ACID BATTERIES SUBCATEGORY	RLEAD ******
D008	RADIOACTIVE LEAD SOLIDS SUBCATEGORY	MACRO ******
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/98.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 369 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 931856 SW: 9842

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brickman Way
Elgin, Illinois 60123-7857

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-281-2600	DICK WHEELER	12/26/98	98-43	17	101179

CUSTOMER MER NO. S-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	474.50	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	493	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
S-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
11/6/98	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	00	4000	44005137	MACHINE SH	1	237.25	0.00	237.25	0.00	34	34	3	10083		4							
2																						
3																						
4																						
5																						
6																					WE CARE	
7																						
8																						
9																						
10																						
11																						
12																						
		TOTAL-SERVICE/PRODUCTS				237.25	0.00	237.25	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD989908202	ILD151759248	6970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5661055
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083	2
B.						
C.						
D.						

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ TOTAL RECEIVED
CHECK NUMBER
APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →
CREDIT CARD NO. AMEX VISA MC EXP. DATE
CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	335

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name
Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	237.25

DO NOT WRITE IN THE AREA BELOW
101179
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (.101179....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D006	CADMIUM (CD)	0.11 MG/L ******
D006	CADMIUM CONTAINING BATTERIES SUBCATEGORY	RTHRM ******
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D008	LEAD (PB)	0.75 MG/L ******
D008	LEAD ACID BATTERIES SUBCATEGORY	RLEAD ******
D008	RADIOACTIVE LEAD SOLIDS SUBCATEGORY	MACRO ******
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/98.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 5983 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 101179 SW: 9843

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brickman Way
Elgin, Il 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITOR	REFERENCE NUMBER
708-201-2600	RICK WHEELER	01/30/99	98-48	17	513937

CUSTOMER NO.: S-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	520.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	493	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
12/3/98	3199		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	004	4000	44005137	MACHINE SH	1	237.25	0.00	237.25	0.00	34	34	3	10083		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTAL-SERVICE/PRODUCTS						237.25	0.00	237.25	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5663055
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083	✓
B.							
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS VLB
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ TOTAL RECEIVED
CHECK NUMBER
APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.
CREDIT CARD NO. AMEX VISA MC EXP. DATE
CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	314

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

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SHEFFIELD STEEL
Print Customer Name

Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	237.25

DO NOT WRITE IN THE AREA BELOW

513937
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (513937....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: 662 SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D006	CADMIUM (CD)	0.11 MG/L ******
D006	CADMIUM CONTAINING BATTERIES SUBCATEGORY	RTHRM ******
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D008	LEAD (PB)	0.75 MG/L ******
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
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*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/98.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 8890 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 513937 SW: 9848

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brickman Way
Elgin, Illinois 60123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRIT	REFERENCE NUMBER
708-201-2600	DICK WHEELER	02/13/99	98-50	17	305768

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	953.75	0

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD.
09	NO	NO	493	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER 5-034-05-2046

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
12-11-98	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	0004000		44115489		1	282.75	0.00	282.75	0.00	34	34	3	10083		8						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					282.75	0.00	282.75	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☑	☐	DECALS IN PLACE AND LEGIBLE	☑	☐	MACHINE PROPERLY GROUNDED	☑	☐
			FUSIBLE LINK INSTALLED	☑	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐	EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5	6	6	3	0	5	5
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	C	10083					2		
B.	17, 17												
C.													
D.													

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	363

IN THE EVENT OF AN EMERGENCY CALL
1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

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Print Customer Name

By: Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	282.75

DO NOT WRITE IN THE AREA BELOW

305768
5-034-05-2046-8

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (305768.....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D006	CADMIUM (CD)	0.11 MG/L ******
D006	CADMIUM CONTAINING BATTERIES SUBCATEGORY	RTHRM ******
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D008	LEAD (PB)	0.75 MG/L ******
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/98.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 9194 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 305768 SW: 9850

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSPORTER

One Brinckman Way
Elgin, 's 60123-7857
TOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVIC LL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDUL TERRITC	REFERENCE NUMBER
708-201-2600	DICK WHEELER	02/27/99	98-52	17	512621

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1191.00	282.75

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P
09	NO	NO	493	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER

5	-	0	3	4	-	0	5	-	2	0	4	6

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
12-30-98	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	004	4000	44005137	MACHINE SH	1	237.25	0.00	237.25	0.00	24	34	3	10083		4						
2																					
3																					
4																					
5																					
6																					WE CARE
7																					
8																					
9																					
10																					
11																					
12																					
TOTAL-SERVICE/PRODUCTS						237.25	0.00	237.25	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE			MACHINE PROPERLY GROUNDED		
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED			LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED			SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD015175924B	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	C	10083
B.	17,17					
C.						
D.						

5663055 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — X INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ#0

MANIFEST CODE	SEQ #
PP	362

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X Print Customer Name

By: X Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	237 25

DO NOT WRITE IN THE AREA BELOW

512621
5-034-05-2946-8

SERVICE AND CALEC ACKNOWLEDGEMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (512621) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0010083
WASTE CODE(S): D001 D006 D008 D018 D027 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D006	CADMIUM (CD)	1.0 MG/L TCLP
D006	CADMIUM (CD)	0.11 MG/L ******
D006	CADMIUM CONTAINING BATTERIES SUBCATEGORY	RTHRM ******
D008	LEAD (PB)	5.0 MG/L EP OR TCLP
D008	LEAD (PB)	0.75 MG/L ******
D018	BENZENE	10 MG/KG ****
D027	P-DICHLOROBENZENE (1,4-DICHLOROBENZENE)	6.0 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/98.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 3226 LOC: 503405 CUST. 5-034-05-2046 TERR. 17 REF#: 512621 SW: 9852

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

N

AVERY™ RECYCLED PAPER MADE FROM 20% POST CONSUMER CONTENT

safety-kleen

1000 N[illegible] [illegible]andall Road
Elgin, Ill[illegible] 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

FOR SERVICE CALL 708-201-2600 TRANSP[illegible]R DICK WHEELER

DOC EXP 03/22/97

SCHEDULED SERVICE WEEK	SCHEDULE[illegible] TERRITOR	REFERENCE NUMBER
97-04	17	627361

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	215.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER / GENERATOR
5-034-05-2046-8
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
F 7097	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WM DISCOUNT	SOLVENT CLEAN	SOLVENT SPENT	SOLVENT # OF CONT.	SOLVENT SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	23150	23036450	ELECTRIC/DOCK	1	198.00	0.00	198.00	29.70		5	1	975		18						
2	00	33150	33007754	Roll Shop	1	291.25	0.00	291.25	43.69		17	1	975		18						
3	00	44000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	31	10083		4						
4	00	44000	44115489	GARAGE	1	330.25	0.00	330.25	0.00		34	31	10083		12						
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

WE CARE

TOTAL-SERVICE/PRODUCTS 1034.75 0.00 1034.75 73.39

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLASING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD[illegible]4908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	11. US DOT DESCRIPTION	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5	1	6	3	0	5	5
A.	WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D039,D008,D018,D040)(ERG#128) 6.7#/GAL	2	DM	22	G	975				2			
B.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001 (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	68	G	10083				4			
C.	(5,) (17,) (17,17) (17,17)												
D.													

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — X C.H. INITIALS

220 LBS. TO 2,200 LBS./MONTH — AH INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP. 633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913

STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	347

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X Clifton Holmes
Print Customer Name

BY X Clifton Holmes
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	1034.75
WM DISCOUNT (FROM ABOVE)	
TOTAL DUE	1034.75

USA 627361

USA 627361

SERVICE AND SALES ACKNOWLEDGMENT

CUSTOMER

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613912

5-034-05-2046 17 (DESIGNATED FACILITY) 97-04

MAN DOC: XXXXX

ADDRESS: 1633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 627361 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ☑ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory) Halogenated Organic Compounds (HOC's)≥1000 mg/l	Combustion (CMBST) or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☒ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040**	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium ** D040 SEE ABOVE	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
23150						
33150						
44000						
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

These treatment standards do not preclude reclamation prior to final disposition.

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North Randall Road
Elgin, 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

FOR SERVICE CALL 708-201-2600

TRANSFER DICK WHEELER

DOC EXP 04/19/97

SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
97-08	17	707356

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	1034.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER

GENERATOR
5-034-05-2046-8
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2/18/97	2799		815-723-9335	14-595-3969						.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WM DISCOUNT	SOLVENT CLEAN	SOLVENT SPENT	SOLVENT # OF CONT.	SOLVENT SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	004	4000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34		310083		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					215.25	0.00	215.25	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	11. US DOT DESCRIPTION	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083
B.						
C.						
D.						

5 16 30 55 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — X W.B. INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP. 633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913

STATE ID NO. (310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE: LDR REC'D

MANIFEST CODE	SEQ #
PP	269

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
WAYNE BARKER
Print Customer Name

By: Wayne Barker
Customer's Authorized Representative

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TOTAL CHARGE (FROM ABOVE)	215
WM DISCOUNT (FROM ABOVE)	
TOTAL DUE	215

707356

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

safety-kleen

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 707356 1997-08
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 707356 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium ** D040 SEE ABOVE	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 N Randall Road
Elgin, IL 60123-7857

WE CARE

DUNS NO. 05106-0400 FED. ID NO. 39-6090019

FOR SERVICE CALL TRANSFER
708-201-2600 DICK WHEELER

DOC EXP
05/17/97

SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
97-12	17	946066

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	215.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER
EXEMPT

CUSTOMER

GENERATOR
5-034-05-2046-8
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
3/20/97	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WM DISCOUNT	SOLVENT CLEAN	SOLVENT SPENT	SOLVENT # OF CONT.	SOLVENT SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	440000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	3	10083		4						
2																					
3																					
12																					

TOTAL-SERVICE/PRODUCTS		215.25	0.00	215.25	0.00

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5163055
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083	2
B.	17,17)						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — XMB. INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE-
LDR REQ'D

MANIFEST CODE	SEQ #
PP	321

IN THE EVENT OF AN EMERGENCY CALL
1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

By: Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	215.25
WM DISCOUNT (FROM ABOVE)	
TOTAL DUE	215.25

946066

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 946066 1997-1

MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 946066 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory) Halogenated Organic Compounds (HOC's)≥1000 mg/l	Combustion (CMBST) or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium ** D040 SEE ABOVE	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North Randall Road
Elgin, Illinois 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER ACCOUNT NO.

5	-	0	3	4	-	0	5	-	2	0	4	6

FOR SERVICE CALL	TRANSPORTER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	06/16/97	97-16	17	571166

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	215.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER / GENERATOR
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60436

BILL TO
5-036-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60436

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
4-15-97	3799		815-723-9335	16-505-3969					0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	440000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	3	10083		6						
2	00	440000	44115489		1	330.25	0.00	330.25	0.00		34	3	10083		12						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
0																					
1																					
2																					
TOTAL-SERVICE/PRODUCTS						545.50	0.00	545.50	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5163055
RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	68	G	10083	4

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS: X Rob B.

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	325

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Sheffield Steel
Print Customer Name

By: J. Wayne Barber
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	545.50
WASTE MIN. (FROM ABOVE)	—
TOTAL DUE	545.50

571144

5-036-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

safety-kleen

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 571144 1997-16
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 571144 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene ** D040 SEE ABOVE	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North Randall Road
Elgin, Illinois 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 36-3090019

FOR SERVICE CALL	TRANSPORTER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	07/12/97	97-20	17	323377

CUSTOMER ACCOUNT NO.

5 - 0 3 4 - 0 5 - 2 0 4 6

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	760.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER — GENERATOR

SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
5-12-97	3789		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GIV
1	00	44000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	3	10083		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
TOTAL-SERVICE/PRODUCTS						215.25	0.00	215.25	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984909202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(FRG#128)	2	DM	34	G	10083
B.	17, 17					
C.						
D.						

5 1 6 3 0 5 5 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ TOTAL RECEIVED
CHECK NUMBER
APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	358

IN THE EVENT OF AN EMERGENCY CALL
1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X Lee Morris
Print Customer Name

X Lee Morris
By: Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	215.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	215.25

323377

5-034-05-2046

SERVICE AND SALES ACKNOWLEDGMENT

CUSTOMER

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 1 323377 1997-3
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 323377 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium ** D040 SEE ABOVE	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).
These treatment standards do not preclude reclamation prior to final disposition.

Generator Company: SHEFFIELD STEEL EPA ID NO.: ILD151759248

1050 North Randall Road
Elgin, Illinois 23-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER ACCOUNT NO.

5	-	0	3	4	-	0	5	-	2	0	4	6

FOR SERVICE CA	TRANSPORTER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	08/09/97	97-24	17	453611

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	215.25	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER
EXEMPT

SERVICE LOCATION
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CUSTOMER

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
6-13-97	3799		815-723-9335	14-595-3969						.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
00	44000	44005137	MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	3	10083		4							☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
TOTAL-SERVICE/PRODUCTS					215.25	0.00	215.25	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☑	☐	DECALS IN PLACE AND LEGIBLE	☑	☐	MACHINE PROPERLY GROUNDED	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐	FUSIBLE LINK INSTALLED	☑	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	IL0984908202	IL0151759248	1980455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5163055
2	DM	34	G	10083	2

RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)
NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)

17,17

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH
INITIALS

220 LBS. TO 2,200 LBS./MONTH
INITIALS

GREATER THAN 2,200 LBS./MONTH
INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

SERVICE AND SALES ACKNOWLEDGMENT
PART 1366 (Rev. 2/97)

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	376

IN THE EVENT OF AN EMERGENCY CALL
1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

B. Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	215.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	215.25

453611

5-034-05-2046-8

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 453611 1997-24
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 453611 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

** D040 SEE ABOVE

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North Randall Road
Elgin, Illinois 60123-7857
CUSTOMER NO.

WE CARE

FOR SERVICE CALL	TRANSPORTER				
708-201-266	DICK WHEELER	09/06/97	97-28	17	761888

5-034-05-2046

GENERATOR
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREV. BALANCE	OVER 60 DAYS
C	660.81	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
7-1-97	2798		815-723-9335	14-595-3969					.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
004400	44005137		MACHINE SHOP	1	215.25	0.00	215.25	0.00		34	3	10083		4							☐
C04400	44115489			1	330.25	0.00	330.25	0.00		34	3	10083		12							☐
3																					☐
4																					☐
5																					☐
6																					☐
7																					☐
8																					☐
9																					☐
0																					☐
1																					☐
2																					☐
TOTAL-SERVICE/PRODUCTS					545.50	0.00	545.50	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☑	☐	DECALS IN PLACE AND LEGIBLE	☑	☐	MACHINE PROPERLY GROUNDED	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐	FUSIBLE LINK INSTALLED	☑	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	68	G	10083
B.						
C.						
D.						

17,17) 17,17)

5 1 6 3 0 5 5 4

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — X MLB INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	390

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Sheffield Steel
Print Customer Name

X Marie Barker
Customer's Authorized Representative

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TOTAL CHARGE (FROM ABOVE)	545.50
WASTE MIN. (FROM ABOVE)	—
TOTAL DUE	545.50

761888

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 761888 1997-28

MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 761888 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☑ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040 **	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene ** D040 SEE ABOVE	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company: SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North Randall Road
Elgin, IL 60123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

FOR SERVICE C	TRANSPORTER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	10/04/97	97-32	17	698901

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	760.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	293	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER GENERATOR
5-034-05-2046
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
8/8/97	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	00	4400	0	44005137 MACHINE SHOP	1	215.25	0.00	215.25	0.00	34	30	3	10083		4							
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
TOTAL SERVICE/PRODUCTS						215.25	0.00	215.25	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5169055
	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)						
A.	NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	30	G	10083	-2
B.	15, 15						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS: XWB
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	337

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X SHEFFIELD STEEL
Print Customer Name

By X Wayne Barker
Customer's Authorized Representative

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TOTAL CHARGE (FROM ABOVE)	215.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	215.25

698901

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

safety-kleen.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY)

EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 698901 1997-3
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 698901 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO.

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

1000 North P Hall Road
Elgin, Illinois 23-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

FOR SERVICE CAL	TRANSPORTER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	11/01/97	97-36	17	000539

CUSTOMER NO.

5 - 0 3 4 - 0 5 - 2 0 4 6

GENERATOR

SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREV. BALANCE	BAL. OVER 60 DAYS
C	760.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	393	001

TAX EXEMPTION NUMBER: EXEMPT

CUSTOMER

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
9-4-97	0895		815-723-9335	14-595-3969						.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
00	440000	44005137	MACHINE SHOP	1	226.00	0.00	226.00	0.00	3439		3	10083		4						THD	☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
																					☐
TOTAL-SERVICE/PRODUCTS					226.00	0.00	226.00	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984968202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5663055
2	DM	34	G	10083	2

RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)
NA1993 PGIII(D001) (D006,D008,D018,D027,D039C040)(ERG#128)

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — W.D. — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	316

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Sheffield Steel
Print Customer Name

By: Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	226.00

000539

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT
PART 1386 (Rev. 5/97)

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 000539 997-36
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 000539 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☑ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED *

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

One Safety-Kleen Way
Elgin, Illinois 60123-7857

WE CARE

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	11/29/97	97-47	17	905365

CUSTOMER ACCT. NO.: S-034-05-2346-1

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	447.25	

GENERATOR
SHEFFIELD STEEL
INDUSTRY AVE
JOLIET IL 60434

BILL TO
S-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
P.O. BOX 72
JOLIET IL 60434

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
502405	EXEMPT

SERVICE DATE	SALES REP. NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
8-3-97	3799		815-723-9335	14-595-3969					.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SOLVENT/DRUMS SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	CHANGE SCH. DATE (YY WW)	INITIAL	INV. CODE	PROMO NO.	RELEASE NO.	MSD GIVE
0023150		23036450		1	~~204.00~~ 16	0.00	~~204.00~~ 16	~~30.60~~ 2.40	3	0	1	975		18	14	98-2					
0033150		33007754		2	~~388.00~~ 245.50	0.00	~~388.00~~ 245.50	~~45.00~~ 28.50	3	0	1	975		18	14	98-2					
0044000		44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	32	3	10083		4							
0044000		44115489		1	~~346.75~~ 269.25	0.00	~~346.75~~ 269.25	0.00	34	30	3	10083		12	8	97-48					
																				WE CARE	
					916.50			916.50													
TOTAL-SERVICE/PRODUCTS					~~1076.75~~ 760.50	0.00	~~1076.75~~ 760.50	~~107.70~~ 76.05													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☐	☐	DECALS IN PLACE AND LEGIBLE	☐	☐	MACHINE PROPERLY GROUNDED	☐	☐
			FUSIBLE LINK INSTALLED	☐	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☐	☐
LAMP ASSEMBLY CONDITION	☐	☐	EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	15.
~~WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D039,D028,D018,D048)(ERG#128)6.7#/GAL~~	~~—~~	~~DM~~	—	~~G~~	~~975~~	
RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	4	DM	62	G	10083	4
16,16, 15,15						

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP. 633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0917690006

PAYMENT RECEIVED SECTION
CASH ☐ CHECK NUMBER
TOTAL RECEIVED
APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. ☐ AMEX ☐ VISA ☐ MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	387

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name

By: Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	916.50

DO NOT WRITE IN THE AREA BELOW
905365

5-034-05-2346-8

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

SERVICE AND SALES ACKNOWLEDGMENT

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 905365 1997-40
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 905365 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO.

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
23150						
33150						
44000						
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

One Brinckman Way
Elgin, Ill 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	12/27/97	97-44	17	907143

CUSTOMER NO.

5 - 0 3 4 - 0 5 - 2 0 4 6

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1079.31	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P
09	NO	NO	393	001

LOCATION	TAX EXEMPTION NO.
503435	EXEMPT

CUSTOMER GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
10/8/97	399		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	M G
1	004000		44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	30	3	10083		4							
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
	TOTAL-SERVICE/PRODUCTS					226.00	0.00	226.00	0.00													

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	30	G	10083	5266065 2
B.	15,15						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS XDK
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	370

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name

By: Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	226
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW
907143

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

safety-kleen

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 907143 1997-44
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 907143 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☐ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (Sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO.

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

One Brinckman Way
Elgin, Illi 60123-7857
C OMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	01/24/98	97-48	17	794505

5	-	0	3	4	-	0	5	-	2	0	4	6

CUSTOMER / GENERATOR

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1079.31	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P
09	NO	NO	393	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
11/21/97	3799		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	M GI
1	0044000		44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	31	30	3	10083		4							
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
	TOTAL-SERVICE/PRODUCTS					226.00	0.00	226.00	0.00													

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☐	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5	1	6	3	0	5	5
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	30	G	10083					2		
B.	15, 15												
C.													
D.													

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS: CH

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐ CHECK NUMBER | TOTAL RECEIVED | APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	418

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION, THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Clifton Holmes
Print Customer Name

By: Clifton Holmes
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	226
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW
794505

5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

safety-kleen

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

5-034-05-2046 17 794505 1997-4E
MAN DOC: XXXXX

ADDRESS: 633 E 138TH ST DOLTON, IL 60419

Under manifest/sales service number 794505 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)
44000						

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION) ** NO SIGNATURE REQUIRED **

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

These treatment standards do not preclude reclamation prior to final disposition.

Generator Company SHEFFIELD STEEL EPA ID NO.: ILD151759248

One Dimmen Way
Elgin, Ill 60123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	02/07/98	97-51	17	454900

CUSTOMER	5 - 0 3 4 - 0 5 - 2 0 4 6

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	226.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. F
09	NO	NO	393	0(

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
12/19/97	3799		815-723-9335	14-595-3969					0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1		0044000	44005137	MACHINE SH	1	226.00	0.00	226.00	0.00	34	34	3	10083		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
		TOTAL-SERVICE/PRODUCTS				226.00	0.00	226.00	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED		
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	

	YES	NO
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PG111(D001) (D006,D008,D018,D027,D039D040)(ERG#128)	2	DM	34	G	10083
B.						
C.						
D.						

5163055 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS
SAFETY-KLEEN CORP.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	4 D

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

By: K Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	226
WASTE MIN. (FROM ABOVE)	—
TOTAL DUE	226

DO NOT WRITE IN THE AREA BELOW

454900
5-034-05-2046-8

CUSTOMER AND GENERATOR RETAIN THIS COPY

LAND DISPOSAL RESTRICTION AND WASTE ANALYSIS CRITERIA FORM

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

safety-kleen

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY) EPA ID NO. ILD980613913 (DESIGNATED FACILITY)

ADDRESS: 633 E. 138th St Dolton Ill. 60419

Under manifest/sales service number 452900 the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

PLEASE ✓ THE APPROPRIATE BOXES

WASTE NAME (FOR NON-WASTE WATER)	WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD OR METHOD
☒ Waste Petroleum Naphtha 105	D001	Ignitable Liquid (High TOC Subcategory)	Combustion (CMBST)
		Halogenated Organic Compounds (HOC's)≥1000 mg/l	or recovery (RORGS)(40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 140	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Actrel Solvent (If customer specific TCLP is not available)	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Parts Washer	D006	Cadmium	1.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Petroleum Naphtha 150	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Aqueous Brake Cleaner	D006	Cadmium	1.0 (non-waste water) MG/L
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☐ Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
☐ Photo Imaging	D011	Silver	5.0 (non-waste water) MG/L
☐ Waste Compound Cleaning Liquid/ Immersion cleaner 699	D006	Cadmium	1.0 (non-waste water) MG/L
	D008	Lead	5.0 (non-waste water) MG/L
	D018	Benzene	10 (non-waste water) MG/KG
	D027	1, 4-Dichlorobenzene	6.0 (non-waste water) MG/KG
	D039	Tetrachloroethylene	6.0 (non-waste water) MG/KG
	D040	Trichloroethylene	6.0 (non-waste water) MG/KG
☐ Waste Gasoline Filters	D001	Ignitable Liquid (High TOC Subcategory)	CMBST, or RORGS (40 CFR 268.42)(non-waste water)
	D018	Benzene	10 (non-waste water) MG/KG

OPTIONAL STATE INFO

MACHINE NUMBER	SPECIFIC GRAVITY	EXCESS FLUID IN DRUM? (MS>2/3)(C>1/3)(Y/N)	OFF-COLOR? (Y/N)	MORE THAN 30% SOLIDS? (Y/N)	UNUSUAL ODOR? (Y/N)	UNUSUAL MATERIALS INCLUDED/ADDED? (Y/N)

SPECIFIC GRAVITY ACCEPTANCE GUIDELINES

SALES REPRESENTATIVE SIGNATURE (FOR OPTIONAL STATE INFORMATION)

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

***These treatment standards do not preclude reclamation prior to final disposition.**

Generator Company Sheffield Steel EPA ID NO.: ILD980613913

CLEARFAX
RECYCLED
80000 SERIES
10% P.C.W.

1301 Gervais Street - Suite 300
Colum... South Carolina 29201

WE CARE

DUNS NO. 05-397-6551 FED. ID NO. 75-2178928 CUSTOMER

FOR SERVICE	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITOR	REFERENCE NUMBER
708-201-2600	DICK WHEELER	09/25/99	99-30	17	646005

CUSTOMER NO.

5	-	0	3	4	-	0	5	-	2	0	4	6

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	2086.43	687.71

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P.
09	NO	NO	494	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
7-28-99			815-723-9335	14-595-3969						.0775

	DEPT.	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	M G
1	0034000		34011670		1	209.25	0.00	209.25	0.00	2604		2	801		8							
2	0034000		34011672		1	209.25	0.00	209.25	0.00	2628		2	801		8							
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
TOTAL-SERVICE/PRODUCTS						418.50	0.00	418.50	0.00													

CHECK APPROPRIATE BOXES ➡

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE		
FUSIBLE LINK INSTALLED		
EMERGENCY CLOSING OF LID UNOBSTRUCTED		
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE		
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA		

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5163055
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	52	G	801	2
B.							
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

I CERTIFY THAT NO MATERIAL CHANGE HAS OCCURRED EITHER IN THE CHARACTERISTICS OF THE WASTE MATERIALS OR IN THE PROCESS GENERATING THE WASTE MATERIALS.

USA EPA ID NO. ILD980613963
STATE ID NO. 0360900006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

MANIFEST NO. XXXXX

LDR MESSAGE LDR REQ'D

MANIFEST CODE	SEQ #
PP	338

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

By: Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	418.50

DO NOT WRITE IN THE AREA BELOW

646005
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54474-R5732 SAFETY-KLEEN 07/05/99 PAGE: 1
LOCATION: 503405 LDR NOTIFICATION FORM 19:05:40

GENERATOR NAME: SHEFFIELD STEEL MANIFEST NO.: XXXXX
OR SALES SERVICE NO.: 646005

CUST#: 5-034-05-2046

PURSUANT TO 40 CFR 268.7(A), I HEREBY NOTIFY THAT THIS SHIPMENT CONTAINS WASTE RESTRICTED UNDER 40 CFR PART 268 LAND DISPOSAL RESTRICTIONS (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO.: 1 MANIFEST PAGE/LINE# 01A SK PROFILE NO.: 0000
SKDOT#: 0000801

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION:
102 P-CRESOL (DIFFICULT TO DISTINGUISH FROM M-CRESOL)
118 P-DICHLOROBENZENE
229 TETRACHLOROETHYLENE
237 TRICHLOROETHYLENE
250 CADMIUM
251 CHROMIUM (TOTAL)
255 LEAD

NOTES

EXP NOTICE: THIS LDR EXPIRES ON 12/31/1999.

Wayne Barker Wayne Barker 7, 28, 99
GENERATOR'S AUTHORIZED SIGNATURE NAME & TITLE (PRINTED OR TYPED) DATE

SEQ#: 9621 LOC: 503405 TERR: 17 REF#: 646005 SW: 9930

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

One Brinckman Way
Elgin, Illi 0123-7857
CUS OMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	03/27/99	99-04	17	704289

CUSTOMER GENERATOR	
5-034-05-2046	SHEFFIELD STEEL ONE INDUSTRY AVE P.O. BOX 727 JOLIET IL 60434

BILL TO
5-034-05-0326 SHEFFIELD STEEL ATTN ACCTS PAY PO BOX 727 JOLIET IL 60434

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1235.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
1-25-99	7269		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
1	0044000		44005137	MACHINE SH	1	228.50	0.00	228.50	0.00	3432		3	801		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
0																					
1																					
2																					
	TOTAL-SERVICE/PRODUCTS					228.50	0.00	228.50	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	32	G	801
16 x 2					

1 CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES	
0 TO 220 LBS./MONTH	INITIALS
220 LBS. TO 2,200 LBS./MONTH	INITIALS
GREATER THAN 2,200 LBS./MONTH	INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO.	ILD980613913
STATE ID NO.	0310690006

PAYMENT RECEIVED SECTION			
CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:	
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS	
INVOICE #	AMOUNT $	INVOICE #	AMOUNT $
PREVIOUS CREDIT CARD NO →			

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

MANIFEST NO.	
XXXXX	
LDR MESSAGE	
LDR REQ'D	
MANIFEST CODE	SEQ #
PP	392

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Lloyd M. Flatt Jr.
Print Customer Name

By: ✓
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	228.50

DO NOT WRITE IN THE AREA BELOW

704289
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (704289 ....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 16GAL DRUMS D001 SKDOT#: 0000801
WASTE CODE(S): D001 D018 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 559 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 704289 SW: 9904

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Pinckney Way
Elgin, Ill. 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	04/03/99	99-05	17	827212

CUSTOMER NO. S-034-05-2046

S-034-05-0326

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1235.75	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
04	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503905	EXEMPT

CUSTOMER INFORMATION
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2-4-99	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	0044000		44115489		1	272.25	0.00	272.25	0.00	3434		3	801		8					
2																				
3																				
4																				
5																				
6																				WE CARE
7																				
8																				
9																				
10																				
11																				
12																				
		TOTAL-SERVICE/PRODUCTS				272.25	0.00	272.25	0.00											

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☐	☐	DECALS IN PLACE AND LEGIBLE	☐	☐	MACHINE PROPERLY GROUNDED	☐	☐
			FUSIBLE LINK INSTALLED	☐	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☐	☐
LAMP ASSEMBLY CONDITION	☐	☐	EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

MANIFEST NO.	USEPA TRANSPORTER ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
XXXXX	ILD984908202	ILD151759298	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

		12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	34	G	801	5263055 2
B.	17x2						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS DM
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310670006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	349

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X per customer contract agreement
Print Customer Name

By: X Sheffield Steel
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	272.25
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	272.25

DO NOT WRITE IN THE AREA BELOW

827212
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (827212) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
WASTE CODE(S): D001 D018 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 9098 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 827212 SW: 9905

One Brinckman Way
Elgin, Illi 0123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	04/10/99	99-06	17	857266

CUSTOMER NO.
5-034-05-2046

CREDIT CODE	PREVIOUS BALANCE	BAL OVER 60 DAYS
C	998.50	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER (GENERATOR)
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2-8-99	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GR
1	0034000		34011670		1	209.25	0.00	209.25	0.00	26	17	2	801		8						
2	0034000		34011672		1	209.25	0.00	209.25	0.00	26	17	2	801		8						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
		TOTAL-SERVICE/PRODUCTS				418.50	0.00	418.50	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	11. US DOT DESCRIPTION	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	34	G	801
B.	17 x 2,					
C.						
D.						

51630SS 2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — RJ.CW INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613963
STATE ID NO. 0360690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

MANIFEST NO.: XXXXX

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	363

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

x Robert J Cawada Jr.
Print Customer Name

By: x Robert J Cawada Jr.
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	418.50

DO NOT WRITE IN THE AREA BELOW

857266
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54214-R5732 SAFETY-KLEEN 01/18/99 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 18:49:44

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (857266 ...) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
WASTE CODE(S): D001 D018 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD131759248

SEQ#: 28 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 857266 SW: 9906

One Brickman Way
Elgin, Illinois 60123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	04/17/99	99-07	17	092407

CUSTOMER NO.: 5-034-05-2046

GENERATOR

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	998.50	282.75

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
7-12-99	7369		815-723-9335	14-595-3969						.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GN
1	00	23150	23036450		1	174.50	0.00	174.50	26.18	12	12	1	717		14						
2	00	33150	33007754		1	243.75	0.00	243.75	36.56	17	17	1	717		14						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					418.25	0.00	418.25	62.74												

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☐	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	516305
A.	WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)NA1993 PGIII (D039)(ERG#128) 6.7LBS/GAL	2	DM	29	G	717	2
B.	17, 12						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — XKC INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST, DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO. →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

MANIFEST NO.: XXXXX

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	305

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-5760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

X SHEFFIELD STEEL
Print Customer Name

By: X Ron
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	418 25

DO NOT WRITE IN THE AREA BELOW

092407
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54214-R5732 SAFETY-KLEEN 01/25/99 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 19:08:03

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (092407.....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 150 D039 SKDOT#: 0000717
WASTE CODE(S): D039
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****

NOTES

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 5907 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 92407 SW: 9907

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

One Brinc[illegible]an Way
Elgin, Ill 123-7857
CUSTOMER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE (	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	04/24/99	99-08	17	761467

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	944.25	478.50

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER GENERATOR

5-034-05-0446

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

Vent

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2-24-99	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY MM)	INV. CODE	PROMO NO.	RELEASE NO.	MS GI
1	0044000		44005137	MACHINE SH	1	228.50	0.00	228.50	0.00	34	34	3	801		4						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					228.50	0.00	228.50	0.00												

WE CARE

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☑	☐
LAMP ASSEMBLY CONDITION	☐	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☑	☐
FUSIBLE LINK INSTALLED	☑	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☑	☐
MACHINE PROPERLY GROUNDED	☑	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5L630SS
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	34	G	801	
B.	17 × 2						
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH
INITIALS

220 LBS. TO 2,200 LBS./MONTH
INITIALS

GREATER THAN 2,200 LBS./MONTH
INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE

MANIFEST NO.
XXXXX
LDR MESSAGE
LDR RE O*D

MANIFEST CODE	SEQ #
PP	315

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

SHEFFIELD STEEL
Print Customer Name

By: Wayne Barker
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	228 50

DO NOT WRITE IN THE AREA BELOW

761467
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (.761467...) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
WASTE CODE(S): D001 D018 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 8431 LOC: 503405 CUST: S-034-05-2046 TERR: 17 REF#: 761467 SW: 9908

One Brinc Way
Elgin, In 123-7857

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

CUSTOMER NO.

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	05/22/99	99-12	17	687171

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1566.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR

5-034-05-2046

CUSTOMER

SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO

5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
3-23-99	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.
1	00	44000	44005137	MACHINE SH	1	228.50	0.00	228.50	0.00			3	801		4					
2		615			2	22.60														
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

WE CARE

TOTAL-SERVICE/PRODUCTS		228.50	0.00	228.50	0.00

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☐	☐
LAMP ASSEMBLY CONDITION	☐	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☐	☐
FUSIBLE LINK INSTALLED	☐	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐
MACHINE PROPERLY GROUNDED	☐	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☐	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

	11. US DOT DESCRIPTION	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	34	G	801
B.						
C.						
D.						

5 1 6 3 0 5 5

2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — DIS INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS
633 E 138TH ST
SAFETY-KLEEN SYSTEMS, INC.
DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐
CHECK NUMBER

TOTAL RECEIVED

APPLY PAYMENT TO:
☐ TODAY'S SERVICE/SALE
☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE

MANIFEST NO.
XXXXX
LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	320

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Ron Butler
Print Customer Name

By:
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	251.10

DO NOT WRITE IN THE AREA BELOW

687171
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGEMENT

K54214-R5732 SAFETY-KLEEN 03/01/99 PAGE: 1
LOCATION: 503405 LAND DISPOSAL RESTRICTION NOTICE 04:25:36

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (687171.....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
WASTE CODE(S): D001 D018 D039 D040
TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 2998 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 687171 SW: 9912

One Brinckr n Way
Elgin, Ill 123-7857
C MER NO.

WE CARE

DUNS NO. 05106-0408 FED. ID NO. 39-6090019

CUSTOMER

FOR SERVICE C	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	05/29/99	99-13	17	684511

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1566.00	

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C.	PROD. P/
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

CUSTOMER

5-034-05-2046

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
5-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
3-29-99	7369		815-723-9335	14-595-3969					.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE* NO.	MS GI
1	0044000		44115489		1	272.25	0.00	272.25	0.00	34	34	3	801		8						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					272.25	0.00	272.25	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	☑	☐	DECALS IN PLACE AND LEGIBLE	☐	☐	MACHINE PROPERLY GROUNDED	☑	☐
			FUSIBLE LINK INSTALLED	☐	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☑	☐
LAMP ASSEMBLY CONDITION	☑	☐	EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☑	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
IL0984908202		IL0151759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
A. RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	34	G	801
B. 17,17					
C.					
D.					

5663055

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — RV INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS
SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO →

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

MANIFEST NO.
XXXXX
LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	349

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
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SHEFFIELD STEEL
Print Customer Name

By: Ron Valley
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	272.25

DO NOT WRITE IN THE AREA BELOW

684511
5-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (684511.....) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
HAZARDOUS WASTE CODES: D001 D018 D039 D040

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

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** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 7577 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 684511 SW: 9913

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

WE CARE

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-261-2600	DICK WHEELER	06/05/99	99-14	17	544767

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1566.00	1566.00

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC/PC	PROD. P/C
09	NO	NO	494	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
S-034-05-0326
SHEFFIELD STEEL
ATTN: ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
5/19/99	779		815-723-9335	14-595-3969					.0775

DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
0034000	34011670			1	209.25	0.00	209.25	0.00	2624		2	801		8							
0034000	34011672			1	209.25	0.00	209.25	0.00	2623		2	801		8							
																				WE CARE	
TOTAL SERVICE/PRODUCTS					418.50	0.00	418.50	0.00													

CHECK APPROPRIATE BOXES →

	GOOD	POOR		YES	NO		YES	NO
MACHINE CONDITION & CLEANLINESS	✓		DECALS IN PLACE AND LEGIBLE	✓		MACHINE PROPERLY GROUNDED	✓	
LAMP ASSEMBLY CONDITION	✓		FUSIBLE LINK INSTALLED	✓		LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
			EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓		SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984408202		ILD155759248	1970455014

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	5116 3055
4	DM	47	G	801	22

RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA)
NA1993,PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)

17, 2 / 17.6

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — X INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

USA EPA ID NO. ILD980613713
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE
		☐ PREVIOUS BALANCE AS FOLLOWS

PO INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE INFORMATION

MANIFEST NO.: XXXXX
LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	349

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Kenneth E. Morris
Print Customer Name

Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	418.50
WASTE MIN. (FROM ABOVE)	0.00
TOTAL DUE	418.50

DO NOT WRITE IN THE AREA BELOW
544767
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (544767) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
HAZARDOUS WASTE CODES: D001 D018 D039 D040

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 679 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 544767 SW: 9914

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

WE CARE

FOR SERVICE CALL	BRANCH MANAGER	DOC EXP	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-8400	DICK WHEELER	01/17/97	97-16	17	40160

CREDIT LIMIT	PREVIOUS BALANCE	DAYS OVERDUE
	1697.10	32

BUSINESS TYPE	CHAIN	OUTSIDE COUNTY	SVC SRCE	PROD SRCE
09	NO	NO	999	001

LOCATION	TAX EXEMPTION NO.
603405	EXEMPT

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRIAL AVE
P.O. BOX 722
JOLIET IL 60434

BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
P.O. BOX 722
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
97/15/97	3375		815-723-9335	14595-3969					.0275

DEPT	SERVICES PRODUCTS	PERCUL NUMBER	KENAKISX UNIT PRICE	QUAN	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN	SOLVENT/DRUMS CLEAN	SPENT	# OF DRUMS	SK DOT	CO	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	CHANGE SCH DATE (MO DAY YR)	INV CODE	PROMO NO.	RELEASE NO.	MSDS GIVEN
0049000		40085137	MACHINE SH	1	228.50	0.00	228.50	0.00	34	24	3	801								
																			WE CARE	
	TOTAL SERVICE/PRODUCTS				228.50	0.00	228.50	0.00												

CHECK APPROPRIATE BOXES →

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	✓	
LAMP ASSEMBLY CONDITION	✓	

	YES	NO
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
EMERGENCY CLOSING OF LID UNOBSTRUCTED	✓	
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984900202		ILD151759248	1970455014

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PG III (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	28	G	801

15.	16.
5160055	2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:

0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — X INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC. 133 E. 144TH ST DOLTON, IL 60419

USA EPA ID NO. ILD984613733
STATE ID NO. 0310690006

SERVICE AND SALES ACKNOWLEDGMENT

PAYMENT RECEIVED SECTION

CASH ☐ CHECK NUMBER ☐ TOTAL RECEIVED — APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. — AMEX VISA MC — EXP. DATE

CUSTOMER PROPERTY INFORMATION

MANIFEST NO.: XXXX
LDR MESSAGE: LDR REQ'D
MANIFEST CODE: PP — SEQ #: 366

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

It is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

X Jim Piccolo
Print Customer Name

X Jim Piccolo
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	0.00

DO NOT WRITE IN THE AREA BELOW

74110
5-034-05-2046-A

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (744110 . . .) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

LDR FORM LINE NO.: 1 SK PROFILE NO.: 000

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
HAZARDOUS WASTE CODES: D001 D018 D039 D040

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151759248

SEQ#: 1799 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 744110 SW: 9916

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

FOR SERVICE CALL	BRANCH MANAGER	DOC EXP	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	STEVE WHEELER	12/17/99	99-50	17	71107

CREDIT CODE	PREVIOUS BALANCE	BAL OVER 30 DAYS
C	2987.59	2987.59

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC ENG	PROD LIC
09	NO	NO	774	001

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

GENERATOR

SHEFFIELD STEEL
ONE NORTHWESTERN AVE
P.O. BOX 77
JOLIET IL 60434

BILL TO

SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 227
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
12/16/99	5741		815-723-1335	IL-STATE					.0775

DEPT	SERVICE PRODUCT	PART NUMBER	REMARKS UNIT PRICE	QUAN	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE NEXT DATE (YY MM)	BILL CODE	PROMO NO.	RELEASE NO.	MISC GIVE
1	0023150	23036450		1	174.50	0.00	174.50	26.183			1	717		14						
2	0030140	23007754		1	243.75	0.00	243.75	36.56			1	717		14						
3	0040087	24000597	MACHINE SH	1	228.50	0.00	228.50	0.0024			3	801		4						
4																				
5																				
6																				
7																			WE CARE	
8																				
9																				
10																				
11																				
12																				
	TOTAL SERVICE/PRODUCTS				646.75	0.00	646.75	62.74												

CHECK APPROPRIATE BOXES

MACHINE CONDITION & CLEANLINESS	GOOD	POOR
DECALS IN PLACE AND LEGIBLE	✓	
FUSIBLE LINK INSTALLED	✓	
LAMP ASSEMBLY CONDITION	✓	
EMERGENCY CLOSING MECHANISM	✓	

	YES	NO
MACHINE PROPERLY GROUNDED	✓	
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	✓	
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	✓	

TRANSPORTER 1 ID NO.	TRANSPORTER 2 ID NO.	GENERATOR USER ID NO.	GENERATOR STATE ID NO.
ILD981908202		ILD151759248	1970455019

11. U.S. DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT./VOL.	SK DOT NUMBER	5L0065
WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (0081,0018,0039,0040)(ERG128)(6.7#/GAL)		DM		G	717	
WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (0081,0018,0039,0040)(ERG128)(6.7#/GAL)	2	DM	28	G	801	2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.
0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC.
633 E 130TH ST
DOLTON, IL 60419

USA EPA ID NO. ILD981061913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

TOTAL RECEIVED $
CASH ☐ CHECK ☐ MONEY ORDER ☐ CHECK NUMBER
APPLY PAYMENT TO: ☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.
EXP. DATE
AMEX VISA MC

CUSTOMER INFORMATION

MANIFEST NO. XXXXX
LDR MESSAGE LDR REQ'D
MANIFEST CODE PP SEQ # 335

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.
"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name: ROBERT L. LARSEN
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)
WASTE MIN. (FROM ABOVE)
TOTAL DUE 584.

DO NOT WRITE IN THE AREA BELOW
71107
5038-05-2001-4

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

SERVICE AND SALES ACKNOWLEDGMENT

TO: SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST
DOLTON, IL 60419

EPA ID NO. ILD980613913
(DESIGNATED FACILITY)

UNDER MANIFEST/SALES SERVICE NUMBER (.711074...) THE GENERATOR NOTED BELOW IS SHIPPING TO YOU WASTE DETERMINED TO BE RESTRICTED UNDER 40 CFR PART 268. IN ACCORDANCE WITH 40 CFR PART 268.7, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED FROM LAND DISPOSAL. A COPY OF THIS FORM MUST BE KEPT BY THE GENERATOR FOR FIVE (5) YEARS FROM THE DATE OF WASTE SHIPMENT.

LDR FORM LINE NO.: 1 SK PROFILE NO.: 000

WASTE NAME: SOLVENT 150 D039 SKDOT#: 0000717
HAZARDOUS WASTE CODES: D039

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****

LDR FORM LINE NO.: 2 SK PROFILE NO.: 000

WASTE NAME: SOLVENT 105 D001 SKDOT#: 0000801
HAZARDOUS WASTE CODES: D001 D018 D039 D040

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD (*) CONCENTRATION OR TECHNOLOGY CODE
D001	HIGH TOC IGNITABLE CHARACTERISTIC WASTE.	RORGS; OR CMBST **
D018	BENZENE	10 MG/KG ****
D039	TETRACHLOROETHYLENE	6.0 MG/KG ****
D040	TRICHLOROETHYLENE	6.0 MG/KG ****

N O T E S

THE CONSTITUENT COMPOSITION IS BASED ON KNOWLEDGE OF THE WASTE (VIA MATERIAL SAFETY DATA SHEETS FOR THE CHEMICAL(S) USED, AND THE PROCESS WHICH CREATED THE WASTE).

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE RECLAMATION PRIOR TO FINAL DISPOSITION.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES AND MEET UNIVERSAL TREATMENT STANDARDS.
**** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.
******NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 8-24-98.

UHC NOTICE: GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS WHEN TREATER MONITORS FOR ALL REGULATED CONSTITUENTS PRIOR TO DISPOSAL.

EXP NOTICE: THIS LDRN EXPIRES ON 12/31/99.

GENERATOR NAME: SHEFFIELD STEEL EPA ID: ILD151739248

SEQ#: 1343 LOC: 503405 CUST: 5-034-05-2046 TERR: 17 REF#: 711074 SW: 9920

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFER

FOR SERVICE CALL	BRANCH MANAGER	DOC EXP	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-4400	BUCK WHEELER	07/29/99	99-21	17	875131

CREDIT CODE	PREVIOUS BALANCE	PAST OVER 30 DAYS
C	[illegible]	[illegible]

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC PAC	PROD PAC
09	NO	NO	494	003

LOCATION	TAX EXEMPTION NO.
509405	EXEMPT

CUSTOMER

GENERATOR
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE	ASSOC CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
3/26/99	377		815-723-9339	14-595-3969					.0775

DEPT	SERVICE PRODUCT	SERVICE NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY MM)	INV. CODE	PROMO NO.	RELEASE NO.	MSDS GIV
1	004000	44115489		1	272.25	0.00	272.25	0.00	34	34	3	801		8						
2																				
3																				
4																				
5																				
6																				
7																			WE CARE	
8																				
9																				
0																				
1																				
2																				
	TOTAL SERVICE/PRODUCTS				272.25	0.00	272.25	0.00												

CHECK APPROPRIATE BOXES →

MACHINE CONDITION & CLEANLINESS	GOOD	POOR	DECALS IN PLACE AND LEGIBLE	YES	NO	MACHINE PROPERLY GROUNDED	YES	NO
	☐	☐	FUSIBLE LINK INSTALLED	☐	☐	LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☐	☐
LAMP ASSEMBLY CONDITION	☐	☐	EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐	SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD048908202		ILD015759248	1970455019

11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

RQ WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)
NA1993 PG III (D001,D018,D039,D040)(ERG128)(6.7#/GL)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
2	DM	34	G	801

5168055

2

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:

0 TO 220 LBS./MONTH — INITIALS
220 LBS. TO 2,200 LBS./MONTH — INITIALS XM
GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC. DOLTON, IL 60419

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH $	TOTAL RECEIVED	APPLY PAYMENT TO
CHECK NUMBER		☐ TODAY'S SERVICE/SALE
		☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #.	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO.

CREDIT CARD NO. | AMEX VISA MC | EXP. DATE

CUSTOMER REFERENCE INFORMATION

MANIFEST NO.: XXXXX

LDR MESSAGE: LDR REQ'D

MANIFEST CODE	SEQ #
PP	313

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"I hereby certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Print Customer Name

By: [signature]
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	272.25

DO NOT WRITE IN THE AREA BELOW

875131
S-034-05-2046-8

THIS AGREEMENT CONTINUES ON THE REVERSE SIDE

SERVICE AND SALES ACKNOWLEDGMENT

K54474-R5732 SAFETY-KLEEN 05/03/99 PAGE: 1
LOCATION: 503405 LDR NOTIFICATION FORM 19:33:52

GENERATOR NAME: SHEFFIELD STEEL MANIFEST NO.: XXXXX
OR SALES SERVICE NO.: 875131

GENERATOR EPA ID: ILD151759248 CUST#: 5-034-05-2046

PURSUANT TO 40 CFR 268.7(A), I HEREBY NOTIFY THAT THIS SHIPMENT CONTAINS WASTE RESTRICTED UNDER 40 CFR PART 268 LAND DISPOSAL RESTRICTIONS (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO.: 1 MANIFEST PAGE/LINE# 01A SK PROFILE NO.: 000
SKDOT#: 0000801

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION - LEGEND CONSITITUENT#:
NONE

N O T E S

EXP NOTICE: THIS LDR EXPIRES ON 12/31/1999.

GENERATOR'S AUTHORIZED SIGNATURE | NAME & TITLE (PRINTED OR TYPED) | DATE 5/26/99

SEQ#: 7686 LOC: 503405 TERR: 17 REF#: 875131 SW: 9921

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

WE CARE

FOR SERVICE CALL: 1-800-468-1760 | BRANCH MANAGER: [illegible] | DOC. EXP.: [illegible] | SCHEDULED SERVICE WEEK: 99-24 | SCHEDULED TERRITORY: 17 | REFERENCE NUMBER: 72711

GENERATOR: SHEFFIELD STEEL [illegible] DYER, IL 46311

BILL TO: SHEFFIELD STEEL ACCTS PAY [illegible] DYER, IL 46311

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	1728.72	0.00

BUSINESS TYPE	IN CHAIN?	OUTER COUNTY	SVC/PRODUCTS
04	NO	NO	990 001

LOCATION: 103904 | TAX EXEMPTION NO.: EXEMPT

SERVICE DATE	SALES REPORT	CUSTOMER P.O. NUMBER	CUSTOMER PHONE	TAX CODE	HANDLING IN CODE	ASSOC. CODE	SERVICE TAX	Q.O.M.S. TAX	PRODUCT TAX
6/14/99	[illegible]	[illegible]	219-773-3316 / 219-545-3969						.0775

DEPT	SERVICE PRODUCT NUMBER	UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CO	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	CHANGE EFF. DATE (ex mmdd)	ANC. CODE	PROMO NO.	RELEASE NO.	MSD GIVE
00	1X000	1X00513	7 MACHINE SH	1	224.50	0.00	224.50	0.00	0	33	801								
																		WE CARE	
	TOTAL SERVICE/PRODUCTS				224.50	0.00	224.50	0.00											

CHECK APPROPRIATE BOXES: MACHINE CONDITION & CLEANLINESS | CAMP ASSEMBLY CONDITION

GOOD / POOR: DECALS IN PLACE AND LEGIBLE | FUSIBLE LINK INSTALLED | EMERGENCY CLOSING

YES / NO: MACHINE PROPERLY GROUNDED | LOCAL PHONE NO. STICKER AFFIXED TO MACHINE | SPENT SOLVENT MEETS ACCEPTANCE CRITERIA

TRANSPORTER ID NO.	GENERATOR USEPA IND.	GENERATOR STATE ID NO.
IL0984902202	IL0151759248	L970455019

11. U.S. DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)

12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER
2	DM	33	G	801

NA1993 WASTE COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA) (CONTAINS BENZENE) (ERG128) (6.7#/GL)

SL67055

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES:
- 0 TO 220 LBS/MONTH — INITIALS
- OVER 220 TO 2,200 LBS/MONTH — INITIALS: XB
- GREATER THAN 2,200 LBS/MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS: SAFETY-KLEEN SYSTEMS, INC. 2332 E. 138TH ST DOLTON, IL 60419

USA EPA ID NO.: ILD980613913
STATE ID NO.: 031069000G

PAYMENT RECEIVED SECTION: TOTAL RECEIVED | APPLY PAYMENT TO: TODAY'S SERVICE/SALE | PREVIOUS BALANCE AS FOLLOWS | CHECK NUMBER | INVOICE # | AMOUNT $ | PREVIOUS CREDIT CARD NO. | CREDIT CARD NO. | EXP. DATE | AMEX VISA MC

MANIFEST NO.: XXXXX | LDR MESSAGE: LDR REQ'D | MANIFEST CODE: PP | SEQ #: 342

IN THE EVENT OF AN EMERGENCY CALL 1-800-468-1760 (24 hours)

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This is to certify that the above named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Print Customer Name | Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE) | WASTE MIN. (FROM ABOVE) | TOTAL DUE

DO NOT WRITE IN THIS AREA BELOW: 97276 | 5-034-05-2046-8

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SERVICE AND SALES ACKNOWLEDGMENT

K54474-R5732
LOCATION: 503405

SAFETY-KLEEN
LDR NOTIFICATION FORM

05/24/99 PAGE: 1
04:06:29

GENERATOR NAME: SHEFFIELD STEEL

MANIFEST NO.: XXXXX
OR SALES SERVICE NO.: 972761

CUST#: 5-034-05-2046

PURSUANT TO 40 CFR 268.7(A), I HEREBY NOTIFY THAT THIS SHIPMENT CONTAINS WASTE RESTRICTED UNDER 40 CFR PART 268 LAND DISPOSAL RESTRICTIONS (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO.: 1 MANIFEST PAGE/LINE# 01A SK PROFILE NO.: 0000
SKDOT#: 0000801

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION - LEGEND CONSITITUENT#:
NONE

N O T E S

EXP NOTICE: THIS LDR EXPIRES ON 12/31/1999.

GENERATOR'S AUTHORIZED SIGNATURE

NAME & TITLE (PRINTED OR TYPED)

6/16/99
DATE

SEQ#: 1567 LOC: 503405 TERR: 17 REF#: 972761 SW: 9924

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

1301 Gervais Street - Suite 300
Columbia, South Carolina 29201

WE CARE

DUNS NO. 05-397-6551 FED. ID NO. 75-2178928

CUSTOMER

FOR SERVICE CALL	BRANCH MANAGER	DOC. EXP.	SCHEDULED SERVICE WEEK	SCHEDULED TERRITORY	REFERENCE NUMBER
708-201-2600	DICK WHEELER	09/18/99	99-29	17	696167

CUSTOMER NO.

GENERATOR: S-034-05-2046

CUSTOMER
SHEFFIELD STEEL
ONE INDUSTRY AVE
P.O. BOX 727
JOLIET IL 60434

BILL TO
S-034-05-0326
SHEFFIELD STEEL
ATTN ACCTS PAY
PO BOX 727
JOLIET IL 60434

CREDIT CODE	PREVIOUS BALANCE	BAL. OVER 60 DAYS
C	2072.03	687.71

BUSINESS TYPE	CHAIN	OUTER COUNTY	SVC. P/C	PROD. P/C
09	NO	NO	494	00

LOCATION	TAX EXEMPTION NO.
503405	EXEMPT

SERVICE DATE	SALES REP NO.	CUSTOMER P.O. NUMBER	CUSTOMER PHONE #	TAX CODE	HANDLING CODE		ASSOC. CODE	SERVICE TAX	C.O.M.S. TAX	PRODUCT TAX
2099	0411		815-723-9335	14-595-3969						.0775

	DEPT	SERVICE/ PRODUCT	SERIAL NUMBER	REMARKS/ UNIT PRICE	QUAN.	CHARGE	SALES TAX	TOTAL CHARGE	WASTE MIN.	SOLVENT/DRUMS CLEAN	SPENT	# OF CONT.	SK DOT	CC	SERVICE TERM	CHANGE SERVICE TERM (WEEKS) (INITIAL)	CHANGE SCH. DATE (YY WW)	INV. CODE	PROMO NO.	RELEASE NO.	MS GN
1	00	44000	44115489		1	272.25	0.00	272.25	0.00	34	31	3	801		8						
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
	TOTAL-SERVICE/PRODUCTS					272.25	0.00	272.25	0.00												

CHECK APPROPRIATE BOXES

	GOOD	POOR
MACHINE CONDITION & CLEANLINESS	☐	☐
LAMP ASSEMBLY CONDITION	☐	☐

	YES	NO
DECALS IN PLACE AND LEGIBLE	☐	☐
FUSIBLE LINK INSTALLED	☐	☐
EMERGENCY CLOSING OF LID UNOBSTRUCTED	☐	☐
MACHINE PROPERLY GROUNDED	☐	☐
LOCAL PHONE NO. STICKER AFFIXED TO MACHINE	☐	☐
SPENT SOLVENT MEETS ACCEPTANCE CRITERIA	☐	☐

USEPA TRANSPORTER 1 ID NO.	USEPA TRANSPORTER 2 ID NO.	GENERATOR USEPA ID NO.	GENERATOR STATE ID NO.
ILD984908202		ILD151759248	1970455019

	11. US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID.)	12. CONTAINERS NO.	TYPE	13. TOTAL QUANTITY	14. UNIT WT/VOL	SK DOT NUMBER	9163059
A.	RQ WASTE COMBUSTIBLE LIQUID,N.O.S. (PETROLEUM NAPHTHA) NA1993 PGIII (D001,D018,D039,D040)(ERG128)(6.7#/GL)	2	DM	31	G	801	2
B.							
C.							
D.							

I CERTIFY THAT MY TOTAL WASTE STREAMS ARE WITHIN ONE OF THE FOLLOWING CATEGORIES.

0 TO 220 LBS./MONTH — INITIALS

220 LBS. TO 2,200 LBS./MONTH — INITIALS

GREATER THAN 2,200 LBS./MONTH — INITIALS

DESIGNATED FACILITY NAME AND ADDRESS SAFETY-KLEEN SYSTEMS, INC.
633 E 138TH ST DOLTON, IL 60419

I CERTIFY THAT NO MATERIAL CHANGE HAS OCCURRED EITHER IN THE CHARACTERISTICS OF THE WASTE MATERIALS OR IN THE PROCESS GENERATING THE WASTE MATERIALS.

USA EPA ID NO. ILD980613913
STATE ID NO. 0310690006

PAYMENT RECEIVED SECTION

CASH ☐	TOTAL RECEIVED	APPLY PAYMENT TO:
CHECK NUMBER		☐ TODAY'S SERVICE/SALE ☐ PREVIOUS BALANCE AS FOLLOWS

INVOICE #	AMOUNT $	INVOICE #	AMOUNT $

PREVIOUS CREDIT CARD NO

CREDIT CARD NO. AMEX VISA MC EXP. DATE

CUSTOMER REFERENCE

MANIFEST NO.
XXXXX
LDR MESSAGE
LDR REQ'D

MANIFEST CODE	SEQ #
PP	306

IN THE EVENT OF AN EMERGENCY CALL

I AGREE TO PAY THE ABOVE CHARGES AND TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH ABOVE AND ON THE REVERSE SIDE OF THIS DOCUMENT. PLEASE CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. THE INDIVIDUAL SIGNING THIS DOCUMENT IS DULY AUTHORIZED TO SIGN AND BIND CUSTOMER TO ITS TERMS.

"This is to certify that the above-named materials are properly classified, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

John Richie
Print Customer Name

By: John Richie
Customer's Authorized Representative

TOTAL CHARGE (FROM ABOVE)	
WASTE MIN. (FROM ABOVE)	
TOTAL DUE	272.25

DO NOT WRITE IN THE AREA BELOW

696167
S-034-05-2046-8

SERVICE AND SALES ACKNOWLEDGMENT

K54474-R5732 SAFETY-KLEEN 06/28/99 PAGE: 1
LOCATION: 503405 LDR NOTIFICATION FORM 20:49:24

GENERATOR NAME: SHEFFIELD STEEL MANIFEST NO.: XXXXX
OR SALES SERVICE NO.: 696167

CUST#: 5-034-05-2046

PURSUANT TO 40 CFR 268.7(A), I HEREBY NOTIFY THAT THIS SHIPMENT CONTAINS WASTE RESTRICTED UNDER 40 CFR PART 268 LAND DISPOSAL RESTRICTIONS (LDR).

A. GENERAL WASTE NOTIFICATION

LDR FORM LINE NO.: 1 MANIFEST PAGE/LINE# 01A SK PROFILE NO.: 0000
SKDOT#: 0000801

EPA WASTE CODES & LDR SUBCATEGORIES (IF ANY):
D001
D018
D039
D040

TREATABILITY GROUP: NONWASTEWATERS

WASTE CONSITITUENT NOTIFICATION - LEGEND CONSITITUENT#NONE
102 P-CRESOL (DIFFICULT TO DISTINGUISH FROM M-CRESOL)
118 P-DICHLOROBENZENE
229 TETRACHLOROETHYLENE
237 TRICHLOROETHYLENE
250 CADMIUM
251 CHROMIUM (TOTAL)
255 LEAD

N O T E S

EXP NOTICE: THIS LDR EXPIRES ON 12/31/1999.

John Richie — GENERATOR'S AUTHORIZED SIGNATURE
John Richie — NAME & TITLE (PRINTED OR TYPED)
7/19/99 — DATE

SEQ#: 7891 LOC: 503405 TERR: 17 REF#: 696167 SW: 9929

TOP COPY: GENERATOR MIDDLE COPY: FACILITY BOTTOM COPY: TRANSFE

P

AVERY™ RECYCLED PAPER MADE FROM 20% POST CONSUMER CONTENT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only.

Form Approved. OMB No. 2050-0028. EPA ID

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

890137

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

For Official Use Only

Comments: N

Installation's EPA ID Number: ILD151759248 | Approved: A | Date Received (yr. mo.): 88 10 13

DEC 29 1988

I. Name of Installation

SHEFFIELD STEEL

II. Installation Mailing Address

Street or P.O. Box: INDUSTRY AVE

City or Town: JOLIET | State: IL | ZIP Code: 60434

III. Location of Installation

Street or Route Number: INDUSTRY AVE

City or Town: JOLIET | State: IL | ZIP Code: 60434

IV. Installation Contact

Name and Title (last, first, and job title): RICHARD RUBUS

Phone Number (area code and number): 312 242 4730

V. Ownership

A. Name of Installation's Legal Owner: HMK GROUP CO

B. Type of Ownership (enter code): P

VI. Type of Regulated Waste Activity (*Mark 'X' in the appropriate boxes. Refer to instructions.*)

A. Hazardous Waste Activity

1a. Generator — X 1b. Less than 1,000 kg/mo.

☐ 2. Transporter

☐ 3. Treater/Storer/Disposer

☐ 4. Underground Injection

☐ 5. Market or Burn Hazardous Waste Fuel (*enter 'X' and mark appropriate boxes below*)

☐ a. Generator Marketing to Burner

☐ b. Other Marketer

☐ c. Burner

B. Used Oil Fuel Activities

☐ 6. Off-Specification Used Oil Fuel (*enter 'X' and mark appropriate boxes below*)

☐ a. Generator Marketing to Burner

☐ b. Other Marketer

☐ c. Burner

☐ 7. Specification Used Oil Fuel Marketer (*or On site Burner*) Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device (*enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.*)

☐ A. Utility Boiler ☐ B. Industrial Boiler ☐ C. Industrial Furnace

VIII. Mode of Transportation (*transporters only — enter 'X' in the appropriate box(es)*)

☐ A. Air ☐ B. Rail ☐ C. Highway ☐ D. Water ☐ E. Other (*specify*) 197-WILL

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

X A. First Notification ☐ B. Subsequent Notification (*complete item C*)

C. Installation's EPA ID Number

EPA Form 8700-12 (Rev. 11-85) Previous edition is obsolete.

Continue on reverse

LW - 12-19-88

| | | |

Q

RECYCLED
80000 SERIES
10% P.C.W.

STORM WATER POLLUTION

PREVENTION PLAN

for

SHEFFIELD STEEL CORPORATION

One Industry Avenue
Post Office Box 727
Joliet, Illinois 60434

Prepared by:

D'Ann Beckemeyer Delp, P.E.
James E. Huff, P.E.

November 1994

HUFF & HUFF, INC.
ENVIRONMENTAL CONSULTANTS
LaGRANGE, ILLINOIS

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FIGURE 2-2: SITE LAYOUT MAP 4

ATTACHMENTS

1. NPDES Permit
2. Annual Storm Water Pollution Prevention Plan Inspection Form
3. Completed Annual Inspection Reports

1. INTRODUCTION

On October 1, 1992, a group permit application for a storm water discharge permit was submitted to the U. S. EPA on behalf of the Steel Manufacturers Association and the Specialty Steel Industry of the United States. Sheffield Steel's Joliet facility was included as one of the group members. In April 1994 Sheffield Steel was notified by the Illinois Environmental Protection Agency (IEPA) of the option of coverage under the Illinois general storm water permit, and on May 24, 1994 the IEPA issued the Illinois general storm water NPDES permit for the site. A copy of the permit may be found in the attachments.

In accordance with Section D of the general permit, this Storm Water Pollution Prevention Plan (SWPPP) has been prepared for the Sheffield Steel facility. The purpose of this SWPPP is to describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharge and to assure compliance with the terms and conditions of the permit.

The elements discussed in this plan include the following:

Facility Description
Site Location Map
Potential Pollutant Sources
Existing Best Management Practices (BMP)
BMPs To Be Implemented
Inspections, Reporting, and Evaluation
Certification

Section 6.1 identifies the members of the Pollution Prevention Team, which is responsible for development, implementation, and revision of this SWPPP.

2. FACILITY DESCRIPTION

2.1 Facility Operations

The activities at Sheffield Steel, a manufacturer of hot rolled steel, are described by the Standard Industrial Classification (SIC) code of 3312, "Steel Works, Blast Furnaces, and Rolling Mills". Approximately 200 employees operate 3 shifts per day, 5 days per week. Added production and repairs occur on the 6th and 7th days. The facility is not an EPCRA Section 313 facility and is not a Hazardous Waste Treatment, Storage or Disposal (TSD) facility.

2.2 Facility Location

Sheffield Steel is located at One Industry Avenue in an industrialized area of Joliet, Illinois. The 30.5 acre site, located approximately 300 feet west of the Des Plaines River, is depicted in Figure 2-1, the topographic map. Properties west of Sheffield Steel are upgradient, while the wooded area east of the site is downgradient. The property generally slopes toward the east.

2.3 Facility Layout

The perimeter of the Sheffield Steel site is surrounded by Industry Avenue to the south, a railroad line and wooded area (leased by Sheffield Steel) to the east, a small creek to the northeast, an industrial facility to the north, and residential/commercial lots to the west. A chain link fence is present around the perimeter of the Sheffield Steel property, and trees and other vegetation line much of the northern and western perimeters.

Buildings cover approximately 8.2 acres, or 27%, of the 30.5 acre facility, which is depicted in Figure 2-2. Paved parking is present west of the Rebar Fab building, and a thin layer of permeable materials such as gravel, covered with scattered vegetation, comprise much of the site. Exposed bedrock can also be observed in some areas. Railroad spurs are present throughout the Sheffield Steel facility, and an employee parking lot is located at the southwestern corner of the property.

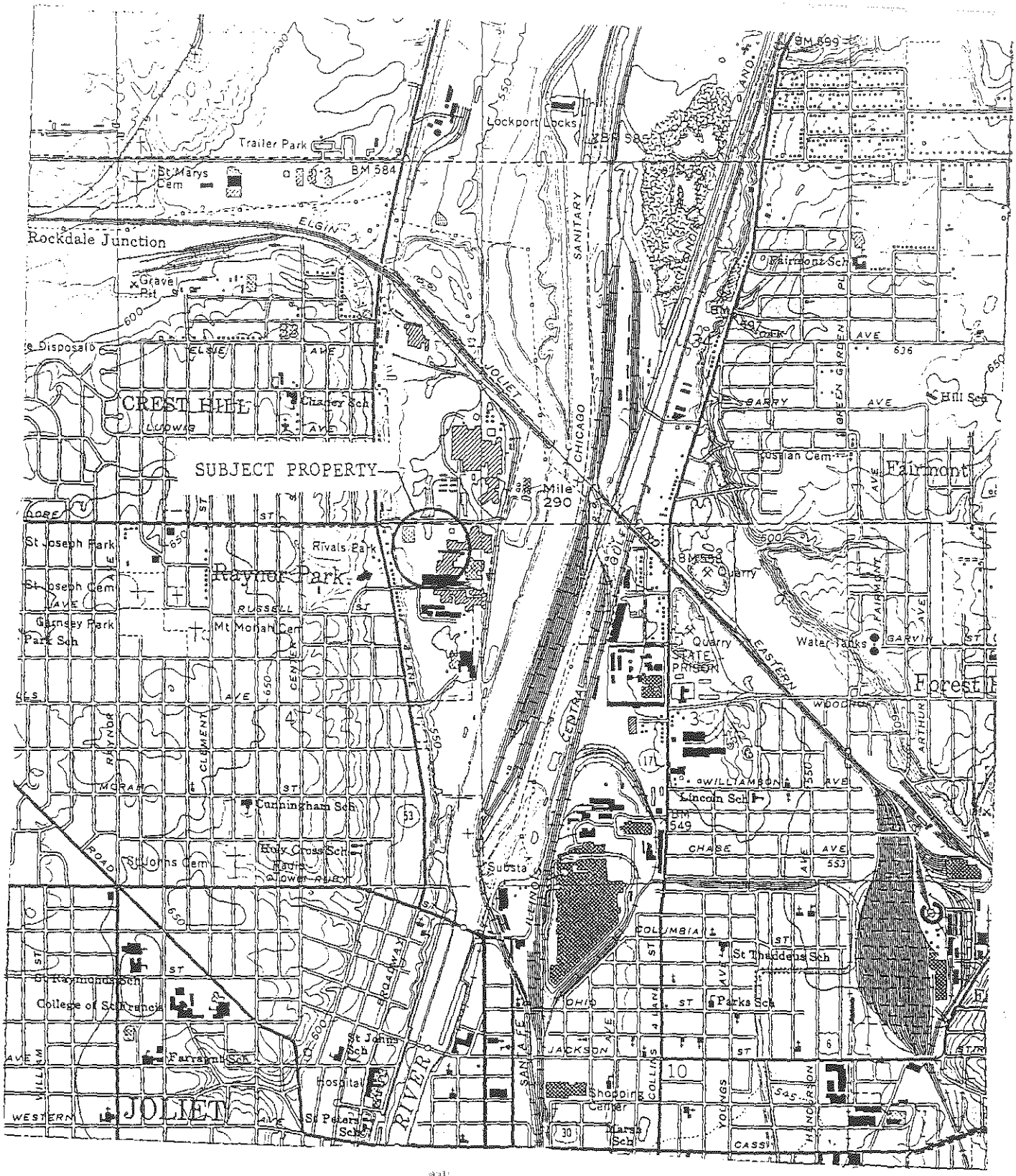


FIGURE 2-1

SITE LOCATION MAP
SHEFFIELD STEEL

NORTH

SCALE: 1" = 2000'

SOURCE: UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY
JOLIET QUADRANGLE

Outside storage of raw materials and waste materials is utilized. Steel billets are stored in four separate billet yards east and west of the main buildings. Mill scale is stored east of the Rebar Fab Building, and scrap metal is stored north of the main buildings. Other miscellaneous steel materials are stored in various areas around the facility.

Two concrete foundations are located near the northern and eastern property lines where buildings previously stood. The largest foundation is currently utilized for storage of wood, mill scale, refractory, metal, and drums of oil and grease, is approximately 21,500 square feet and is located near the northeastern corner of the property. The smaller foundation is approximately 5,800 square feet, and gravel material is stored on it.

Sheffield Steel utilizes an on site well for its water supply, including potable water. The well pump is in the pump room located south of the machine shop.

2.4 Material Inventory

As a hot-rolled steel manufacturer, Sheffield Steel's main raw material is steel billets, and the main wastes are steel scrap and mill scale. Other materials on site and the type of storage for each are presented as follows.

Material	Storage Containers	Storage Location
propane	tanks, cylinders	outdoors
oxygen	cylinders	under roof
acetylene	cylinders	under roof
gasoline	tank - aboveground	outdoors
diesel fuel	tank - aboveground	outdoors
cold-cleaning solvents	parts cleaning machine	indoors
oils/greases/lubricants	drums	indoors/outdoors
bulk oil	tank	indoors

Relatively few hazardous substances are utilized at the facility.

2.5 Storm Water Routing

Figure 2-2 presents the storm water drainage pattern for Sheffield Steel. A portion of the stormwater discharge from the facility either leaves the site as sheet runoff or is routed to the company's closed-loop water treatment plant, which provides process water for steel manufacturing. The treatment plant takes in river water as make-up water and is covered by IEPA permit # 1991-EO-2916. The balance of the storm water runoff from the Sheffield Steel facility is collected into a storm sewer system which discharges as Outfall 001.

The storm sewer system is comprised of a 21 inch diameter sewer line originating southwest of the Rebar Fab building and a 24 inch diameter line originating near the Steel Warehouse. The two lines merge into a 42 inch diameter line which directs the runoff to Outfall 001. Outfall 001 discharges into an unnamed creek which flows within a few feet of the northeastern corner of the property. The creek feeds a wetland and ultimately discharges into the Des Plaines River, located approximately 300 feet east of the Sheffield Steel facility.

A narrow open ditch is present near the center of the western property line. Runoff from upgradient off-site properties and from the Sheffield Steel parking lot gravitates to the ditch which then conveys the runoff to the 21 inch diameter sewer line. The 21 inch line collects storm water from a series of downspouts on the Rebar Fab building and from catch basins in the parking lot west of the building. Presently, the Rebar Fab building is not in use, and no industrial activity takes place adjacent to the building.

The 24 inch diameter line initially receives runoff from roof downspouts on the Steel Warehouse building and ground water from perforated field tile beneath the concrete floor at the west end of the building. The line also collects ground water through a system of underground perforated pipes north of the warehouse. The underground perforated pipe, which collects stormwater from uphill areas which has seeped into the ground, is typically 6-10 inches in diameter and is identified separately in Figure 2-2.

Low spots are scattered throughout the drainage area of Outfall 001, but are concentrated in the railway areas southwest of the Machine Shop. A sump pump, located in a shed southwest of the Machine Shop, is utilized occasionally to drain the area to the 24 inch diameter storm sewer line.

The total aboveground drainage area for Outfall 001 is approximately 17 acres, of which nearly 3.2 acres (19 percent) is impervious. The aboveground region that drains to Outfall 001 is located north and west of the main buildings and includes the following areas:

- gasoline aboveground storage tank
- fuel oil aboveground storage tank
- main parking lot
- Steel Warehouse building downspouts
- grating at entrance to Steel Warehouse
- billet storage west of main buildings
- railway spurs
- scrap metal storage
- mill scale storage
- Rebar Fab building - downspouts and parking area

3. POTENTIAL POLLUTANT SOURCES

A potential pollutant source exists when storm water quality can be degraded due to contact with production or maintenance materials or their byproducts. At the Sheffield Steel facility, no outdoor activities are conducted which generate significant quantities of dust or particulates. No areas of existing or potential soil erosion have been identified, and no injection wells, seepage pits, or infiltration ponds are located in the drainage area for Outfall 001. No outdoor areas are used for disposal of significant materials, and no fertilizers or soil conditioners are applied within the areas which drain to Outfall 001. No servicing of vehicles occurs outside, and pesticides are applied rarely.

Many tanks which are not considered potential pollutant sources are located outside at the facility. These tanks are identified as the well water tank, the river water tank, propane (gas) storage tanks, and the oxygen tank. Trash dumpsters and trash cans are also distributed around the facility.

3.1 Materials In Drainage Area of Outfall 001

An inventory of materials with potential storm water contact in the drainage area of Outfall 001 is utilized to develop the best management practices for this facility.

3.1.1 Diesel Tank

A 1,000-gallon above ground diesel fuel tank is present approximately 50 feet west of the Machine Shop, in a double lined tank which rests on a concrete pad. The diesel is used to fuel on site mobil sources. Overfills are contained within the double lined tank; however, there is the potential for spills during fueling the mobil sources.

3.1.2 Gasoline Storage Tank

A 500-gallon above ground gasoline storage tank is located next to the diesel tank, also in a double lined tank and rests on a concrete pad. The gasoline is utilized to fuel on site mobil sources. Again, the only potential for gasoline spills would be during fueling of vehicles.

3.1.3 Contractor's Fuel Tank

Scrap metal accumulates in piles prior to being resold for recycling, and a crane, owned by the recycling contractor, is kept near the scrap piles to load the metal onto railroad cars. A contractor-owned 110-gallon above ground diesel fuel tank is present near the crane to facilitate its fueling. The tank sits on a concrete foundation which has a concrete berm on three sides.

3.1.4 Outside Steel Storage

Steel billets, scrap steel and mill scale are temporarily stored outside in various areas. The steel represents a potential source of suspended metals in runoff.

3.1.5 Steel Warehouse Building

A grating is present at the northern entrance to the Steel Warehouse building. No materials are stored in or near the warehouse which could seep into the grating.

3.2 Materials Near Drainage Area of Outfall 001

A variety of materials are temporarily stored on the concrete foundation located near the northeastern corner of the site. The area does not drain to Outfall 001, but is located near the drainage basin and near the property line. Lubricants, drums of used grease and oil, refactory waste, wood, and other items are stored on the foundation. The drums have been surrounded on the northern, eastern, and southern sides with several inches of gravel to divert any potential leakage away from the property line.

3.3 Past Releases

During removal of two 2,000-gallon underground storage tanks in 1992, a fuel release was discovered. The release, believed to be due to overfill and spillage, was reported and assigned Incident #92-1619. Remediation of the area, by removal of approximately 315 cubic yards of soil, was conducted to the satisfaction of the Illinois Environmental Protection Agency.

3.4 Non Storm Water Discharges

Only storm water runoff is known to discharge to Outfall 001. Some of the stormwater is in the form of ground water from uphill areas which has seeped into the ground and has been channeled to the storm water sewer via small perforated pipes.

3.4.1 Sanitary Waste Water

Sanitary waste water from the main buildings is discharged to the city sanitary sewer which runs under Industry Avenue, whereas sanitary waste from the Rebar Building has a septic tank and tile system located east of the building.

3.4.2 Floor Trenches

Covered floor trenches which drain to the water treatment plant are present in the north end of Building #3. No flow has been observed in the trenches, and no liquids are present in the building which could seep into the trenches. No floor drains have been observed in any other buildings.

3.4.3 Process Water

All process wastewater is cycled through the closed loop water treatment plant. No process waste water is discharged to the sanitary system or to the storm sewer system.

3.5 Storm Water Monitoring Data

Storm water sampling results from several group member facilities were included in the original group storm water permit application submitted to U.S. EPA in 1992 and in a follow up submittal in June 1993. The results of the sampling data were compared to EPA's Nationwide Urban Runoff Program (NURP) study. The comparison generally indicated that storm water runoff from the sampled group member facilities contained lower concentrations of most pollutants than the typical commercial/residential runoff in the NURP study.

Sheffield Steel was not required to submit site specific sampling data to qualify for the general permit in Illinois. Therefore, no sampling of storm water has been conducted at the subject facility.

4. EXISTING BEST MANAGEMENT PRACTICES (BMP)

Best Management Practices (BMP) are used to eliminate or reduce the potential for pollutant loading of the storm water. Several BMPs have already been implemented at the Sheffield Steel facility.

1. The Sheffield Steel facility is surrounded by a fence, and access is limited through the guard house. Controlling access to the facility can reduce the potential for pollutant loading caused by non-employees.

2. Two above ground fuel storage tanks are present at the site. The tanks have full secondary containment and rest on a concrete pad.

3. Sheffield Steel conducts monthly safety meetings to train employees in a variety of topics, including proper handling of materials to reduce the potential for accidents.

4. An unused aboveground fuel tank near the repair shop has been removed.

5. Outdoor 55-gallon drums which are held in frames and tipped onto their sides to facilitate dispensing have been either moved indoors or relocated to impervious areas.

6. Mill scale is stored on a more elevated portion of the facility to prevent stormwater run-on.

7. Where possible, vegetation has been allowed to grow to allow for filtration of stormwater to reduce the volume and solids content of the discharge. Bedrock is exposed in many areas of the facility making establishment of vegetation difficult.

5. BMP TO BE IMPLEMENTED

The following BMPs will be implemented at Sheffield Steel.

1. Sheffield Steel will form a Storm Water Pollution Prevention (SWPP) Team. As required by the general NPDES storm water permit, members will meet annually to:

   a) Conduct a comprehensive annual SWPPP inspection
   b) Evaluate the SWPPP program.
   c) Submit an annual report to the IEPA.

2. Prior to implementation of this SWPPP, employee training will be conducted to inform all personnel of the components and goals of the SWPPP. Training will be conducted during one of the regularly scheduled monthly safety meetings. New employees will be trained when initially hired.Documentation of employee training will be maintained which will consist of:

   a) the topics covered
   b) a brief description of the program
   c) the date of the training
   d) a list of the employees trained

3. As required by the NPDES permit, a copy of each annual inspection report submitted to the IEPA will be maintained as part of the SWPPP.

4. In the event of a spill or release at the facility, documentation will be maintained as incident reports for a period of one year after the expiration of the NPDES permit. Incident reports will include:

a) the material and quantity released

b) extent of release effects

c) actions taken (including disposal of waste)

d) recommendations to minimize the possibility of a similar event

5. Personnel will inspect the buildings to confirm the location of all floor drains/trenches. All floor drains/trenches will be tested to confirm that they do not discharge to the storm sewer system.

6. Sanitary lines will also be dye tested to confirm that none discharge to the storm sewer.

7. The fuel tank owned by the recycling contractor will be: a) bermed on all sides to provide sufficient secondary containment, or b) removed from the site.

8. Overfills when fueling vehicles will be immediately cleaned up. Oil-dri and a 55-gallon drum will be housed adjacent to the tanks for ready access.

9. Construct impervious containment around the edges of the large foundation where oils and grease materials are stored.

6. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IMPLEMENTATION

6.1 Members of Storm Water Pollution Prevention Team

The following personnel represent the Storm Water Pollution Prevention Team which is responsible for development, implementation, and revision of this SWPPP.

Contact:	Ken Morris
Title:	Manager, Maintenance & Engineering
Work Phone:	(815) 740-4920
24 Hour Phone:	(815) 740-4920
Contact:	James Huff
Title:	Vice President, Huff & Huff Inc. (Consultant)
Work Phone:	(708) 579-5940
24 Hour Phone:	(708) 352-0950

6.2 Implementation Schedule

The SWPPP must provide for compliance with the terms of the plan within 365 days of notification by the IEPA of coverage under the NPDES permit. Therefore, implementation of the Plan must begin by May 23, 1995. Implementation of new BMPs will be completed according to the following schedule:

BMP To Be Implemented	Implementation Date
SWPP Team annual meeting for . facility inspection . evaluation of SWPPP	May 23, 1995 & Annually
Submission of Annual Report . submission to IEPA . add to SWPPP	July 22, 1995 & Annually

BMP To Be Implemented	Implementation Date
Employee Training & Documentation	May 23, 1995 & Ongoing
Incorporate Incident Reports into the SWPPP	July 22, 1995 & Ongoing
Floor Drains/Trenches . identify locations . test	May 23, 1995
Test Sanitary Lines	May 23, 1995
Remove contractor-owned fuel tank or provide containment	May 23, 1995
Fuel Tank Spillage: . provide Oil-dri & drum	May 23, 1995
Containment for foundation: . identify options . complete construction	 May 23, 1995 August 1, 1996

6.3 Revision of the SWPPP

This SWPPP will be amended whenever

a) there is a change in construction, operation, or maintenance that may affect the discharge of significant quantities of pollutants to the storm sewer system

b) any deficiencies are noted during the annual inspection.

c) new recommendations are required as a result of any incidents which may occur at the facility.

Revisions to and subsequent implementation of the SWPPP will be accomplished within the shortest reasonable time period.

7. ANNUAL INSPECTION, REPORTING, AND EVALUATION

Sheffield Steel will conduct a comprehensive annual facility inspection and report the results to the IEPA.

7.1 Annual Inspection

The annual inspection will be conducted by the Storm Water Pollution Prevention Team by May 23 of each year beginning in 1995. During the inspection, areas of the facility within the drainage basin of Outfall 001 will be evaluated for evidence of soil and particulate sediments, erosion gullies, staining/discoloration, and any other potential sources of storm water pollution. In addition, a storage area near the drainage basin will be inspected.

The inspection requires completion of an annual inspection report form. The report, which identifies areas requiring follow-up, is filed and maintained at the facility by the Manager, Maintenance & Engineering. A copy of the form may be found in the Attachments.

Should the comprehensive inspection be conducted more frequently, the results of the more frequent inspections will also be submitted to the IEPA.

7.2 Annual Report

The first annual report must be submitted by July 22, 1995 and will cover the twelve month period from May 24, 1994 to May 23, 1995. Each successive annual report must be submitted by July 22 and must cover the previous May 24 through May 23 time period. Annual reports are required through the expiration date of the NPDES permit (October 1, 1997).

The annual report will be comprised of:

1) the annual inspection form
2) documentation of any incident and resulting actions

The report will be completed and signed by the Manager, Maintenance & Engineering and will be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
Annual Inspection Report
2200 Churchill Road
PO Box 19276
Springfield, Illinois 62794-9276

7.3 Evaluation

From the annual inspection, an evaluation of the effectiveness of the SWPPP program will be made by the Storm Water Pollution Prevention Team. This evaluation will include a review of the SWPPP and will determine the need for any changes or additional measures. Any deficiencies noted during the evaluation will be addressed by a revision of the SWPPP as outlined in Section 6.3.

8. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

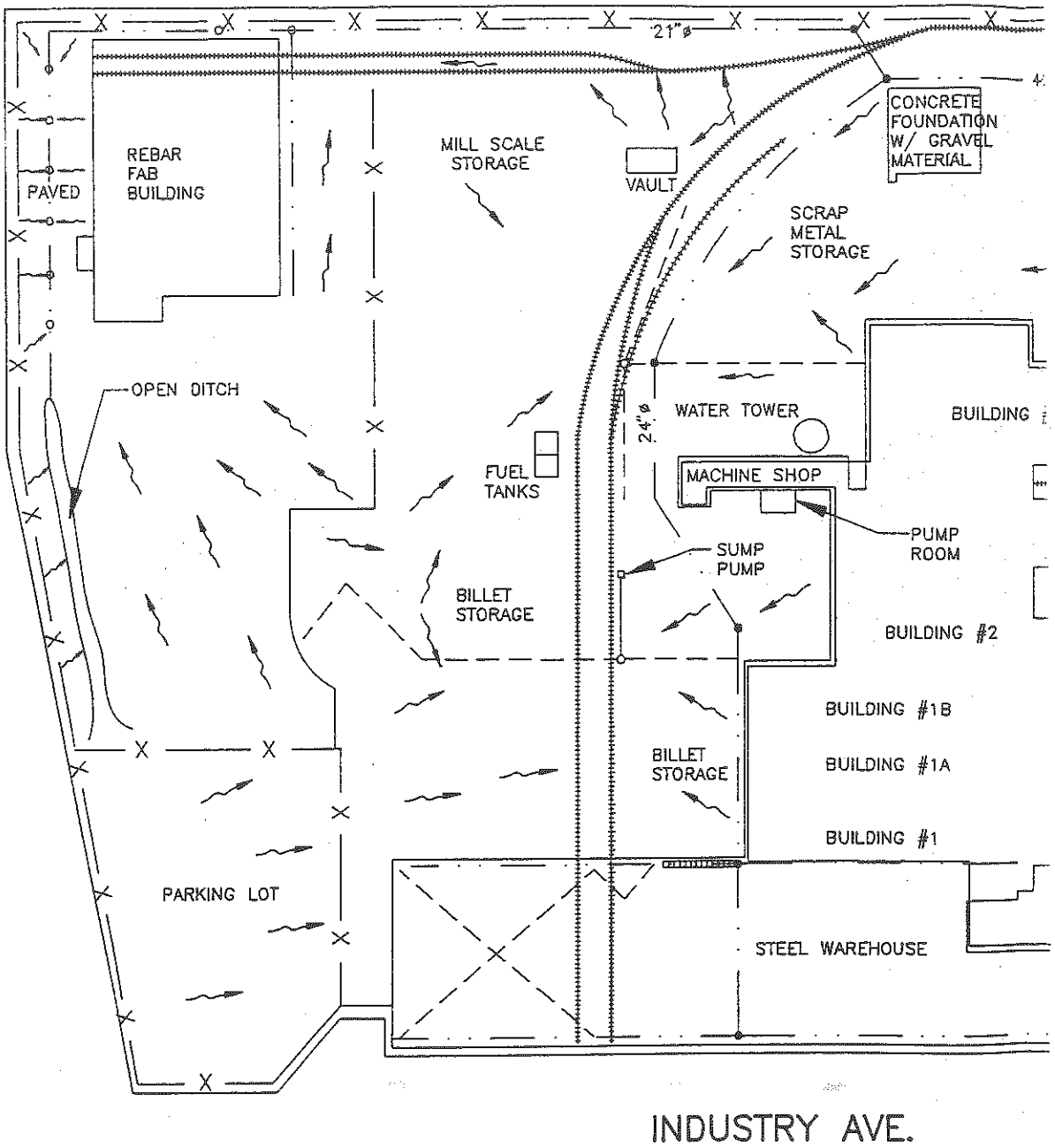
Signature: _____

Kenneth G. Morris

Manager, Maintenance & Engineering

Date: _____

ATTACHMENTS


21"ø
CONCRETE FOUNDATION W/ GRAVEL MATERIAL
REBAR FAB BUILDING
PAVED
MILL SCALE STORAGE
VAULT
SCRAP METAL STORAGE
OPEN DITCH
WATER TOWER
24"ø
BUILDING
FUEL TANKS
MACHINE SHOP
PUMP ROOM
SUMP PUMP
BILLET STORAGE
BUILDING #2
BUILDING #1B
BILLET STORAGE
BUILDING #1A
BUILDING #1
PARKING LOT
STEEL WAREHOUSE
INDUSTRY AVE.

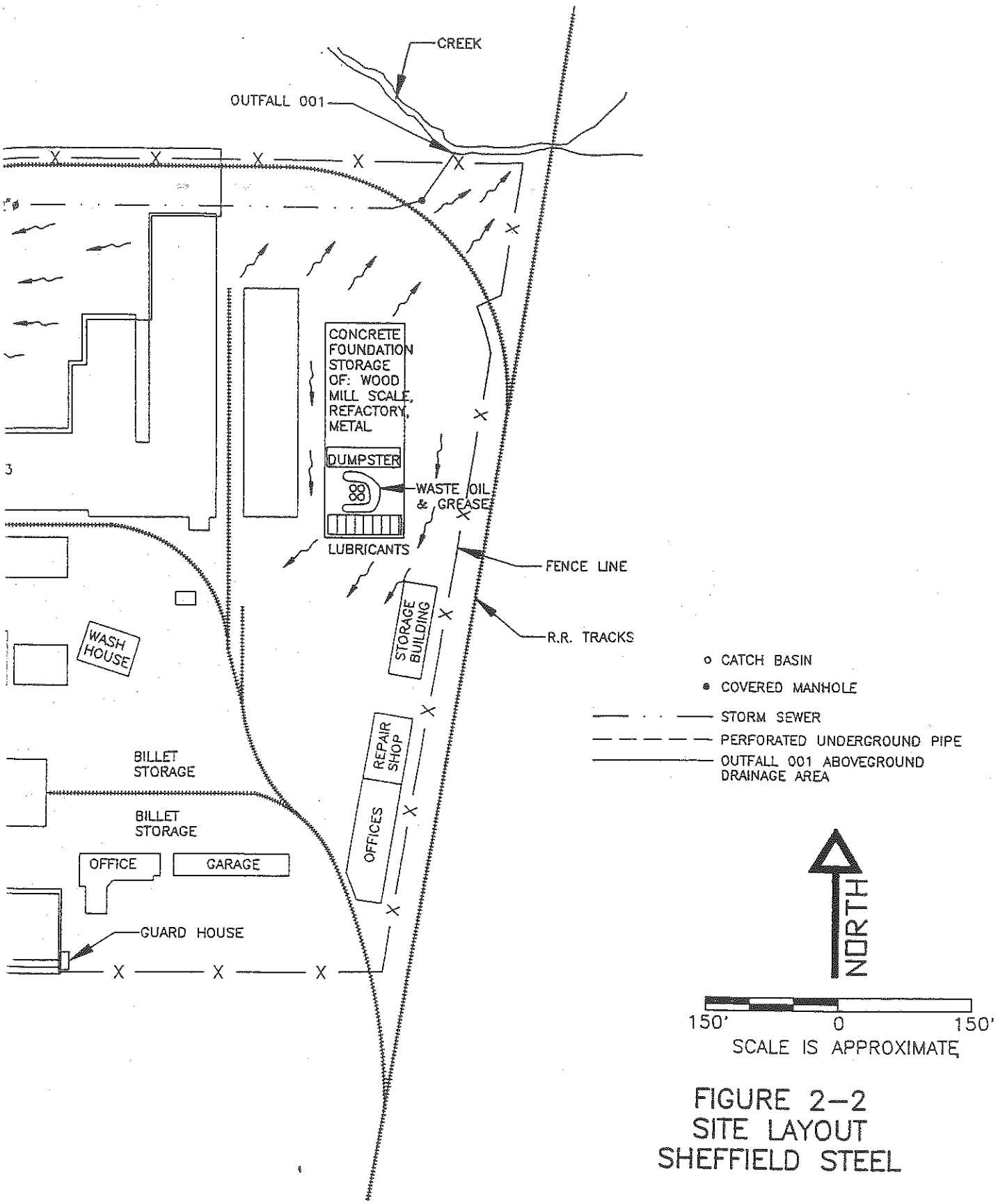


FIGURE 2-2
SITE LAYOUT
SHEFFIELD STEEL

R

SHEFFIELD
ISO 9002
Certified Quality System

ISO 9002 Registered KPMG Quality Registrar
The Quality Advantage

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in responding to this information request. Based on my review of all relevant documents and inquiry of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Frank Di Falco

Mr. Frank Di Falco
Operations Manager
Sheffield Steel Corporation
One Industry Avenue
Joliet, Illinois 60434

Date: 9/20/99