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cc: Maywood
USEPA

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safety-kleen

January 10, 1997

Fed Ex Tracking No.: 277 3435 786

Mr. Edwin Bakowski, P.E.
Manager Permit Section #3
Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

RECEIVED
JAN 13 1997
IEPA-DOL
PERMIT SECTION

Re: Safety-Kleen Chicago Recycle Center (ILD005450697)
Sixth Quarterly Report
Phase II RCRA Facility Investigation
Reporting Period: 1 October, 1996 - 31 December, 1996

Dear Mr. Bakowski:

This letter documents the activities performed as part of the Phase II RCRA Facility Investigation (RFI) for the Safety-Kleen CRC for the period of October 1 through December 31, 1996 (Sixth Quarterly Report). As specified in Item #5 in the July 7, 1995 IEPA qualified approval letter to the March 31, 1995 Phase II RCRA Facility Investigation Work Plan, the following summary includes: (a) an estimate of the percentage of the completed investigation; (b) a summary of the activities completed during this reporting period; (c) summaries of all actual or proposed changes to the Work Plan or its implementation; (d) summaries of all actual or potential problems encountered during the reporting period; (e) proposals for correcting any problems; (f) projected work anticipated for the next reporting period; and (g) other information or data as requested in writing by the Division of Land Pollution Control (DLPC). This report is submitted in compliance with the January 15, 1997 deadline for the work progress/project status quarterly report (as specified in Item #5 in the July 7, 1995 IEPA qualified approval letter).

OVERVIEW

The Phase II field investigations began in September 1995 with the soil and groundwater extent and distribution investigation with a geoprobe device. In accordance with the Phase II Work Plan, onsite screening of groundwater samples was conducted with a gas

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chromatograph (GC). Soil and groundwater samples were sent to IEA Laboratories (IEA), Schaumberg, Illinois, for VOC and SVOC analyses. The results of the soil and groundwater extent and distribution investigations were evaluated upon receipt of the laboratory data. These results and proposed recommendations for additional investigations were reported to IEPA in the November 1995 RFI Phase II Technical Memorandum for IEPA review and comment. IEPA approval was received on June 24, 1996, and additional Phase II investigations were conducted in August, 1996 in accordance with the approved Technical Memorandum and Phase II Work Plan. These investigations consisted of soil boring and monitoring well installations, and soil and groundwater sampling and analyses.

We estimate that the Phase II field investigations are approximately 90% complete and the reporting is approximately 90% complete as of December 31, 1996.

ACTIVITIES FOR REPORTING PERIOD

IEPA approval of the November 1995 RFI Phase II Interim Technical Memorandum was received on June 24, 1996. Safety-Kleen completed all additional field investigations in August, 1996 (as described in the Phase II Work Plan, along with the approved additional field investigations proposed in the Interim Technical Memorandum), with the exception of completing a full year of quarterly static water level measurements, which were to be initiated after completion of all monitoring well and piezometer installations. Two of the four quarterly static water level measurements have been conducted to date. The field activities, data evaluations and reporting conducted during this reporting period are summarized as follows:

Collect Quarterly Static Water Level Data

On November 14, 1996, a full round of static water level data was collected from all existing site monitoring wells and piezometers P1A and P2A, in accordance with the approved Phase II Work Plan and Technical Memorandum. This was the second of four quarterly events that were specified in the Work Plan. No static water level data could be collected from piezometers P1 and P2 because these piezometers were dry. (P1 and P2 were installed at the water table and if the water table falls below an elevation of approximately 591 feet in the vicinity of P1 and 589 feet in the vicinity of P2, then the water table will be below the bottoms of the screens in P1 and P2, respectively. This appears to be the explanation for why P1 and P2 were dry in November, 1996.)

Data Evaluation and Reporting

The Fifth Quarterly Report, dated October 7, 1996, was written and submitted to IEPA in accordance with the October 15, 1996 deadline for the work progress/project status quarterly report (as specified in Item #5 in the July 7, 1995 IEPA qualified approval letter).

Data evaluations and reporting are nearly complete for the data generated during the additional Phase II investigations. The Phase II RFI report will be submitted to IEPA on or before February 15, 1997, as stipulated in Item #1 in the June 17, 1996 IEPA approval letter to the November, 1995 Tech Memo. The soil and groundwater analytical data were summarized and were included as Attachments A and B, respectively, to the October 7, 1996 Fifth Quarterly Report. The laboratory reports for the soil and groundwater data also were included with Attachments A and B, respectively, to the October 7, 1996 Fifth Quarterly Report. Enclosed is a revised version of the soil summary table from Attachment A: the original table inadvertently used values for the Preliminary Soil Target Levels (PSTLs) from the September 30, 1994 IEPA approval letter to the Phase I Report, rather than the revised PSTLs listed in the July 7, 1995 IEPA approval letter to the Tech Memo. The attached corrected table highlights those 1996 soil concentrations that were detected at or above PSTLs listed in the July 7, 1995 IEPA approval letter.

PROBLEMS/SOLUTIONS AND ACTUAL OR PROPOSED CHANGES TO WORK PLAN

In December, 1996, IEPA was notified by telephone and in writing that five SVOCs were not included in the list of analytes for the 1996 groundwater analyses. These compounds were pryidine, 3-picoline, N,N-dimethylacetimide, acetophenone and 1-methyl-2-pyrrolidinone. LTI notified IEPA by phone and in correspondence dated December 20, 1996, of the corrective actions that were taken to address this oversight. LTI received verbal approval of the corrective measures in a January 7, 1997, telephone conversation with Victoria Broomhead of IEPA.

ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Collect Quarterly Static Water Level Data

As stipulated in the Phase II Work Plan, after installation of the two piezometers and the four additional proposed monitoring wells, static water level data will be collected from all site wells quarterly for one year. The first two quarterly static water level events were conducted on August 14 and November 14, 1996, the third quarterly static water level event will be conducted in February, 1997, and the fourth and final event will be conducted in May, 1997.

Data Evaluation and Reporting

Data evaluations will be finalized for the data generated during the additional Phase II investigations. The Phase II RFI Report will be completed and submitted to IEPA by February 15, 1997, in accordance with the revised schedule provided in the June 17, 1996 IEPA approval letter to the Technical Memorandum. The laboratory and professional certifications will be provided with the Phase II Report.

If you have any questions or comments about this report, please contact either me at 847-468-2216 or Cathy Whiting of LTI at 313-332-1200.

Sincerely,
Safety-Kleen Corp.

Anne M. Lunt/nm

Anne M. Lunt
Senior Project Manager-Remediation

Enclosure

cc: Keith Marcott, Safety-Kleen Corp.
Alfred Aghaiepour, Safety-Kleen CRC
David J. Reynolds, City of Chicago
Cathy Whiting, LTI

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ATTACHMENT A: AUGUST, 1996 SOIL SAMPLING RESULTS SAFETY-KLEEN CHICAGO RECYCLE CENTER

SOIL ANALYTICAL RESULTS (August, 1996)

SAFETY-KLEEN CHICAGO RECYCLE CENTER, CHICAGO,IL

SAMPLE I.D.	MW11		MW11		MW12		MW12		MW13		MW13		MW14		MW14		Maximum Concentration (ug/kg)	*Preliminary Soil Target Level (ug/kg)
SAMPLING DATE	8/6/96		8/6/96		8/6/96		8/6/96		8/5/96		8/5/96		8/5/96		8/5/96			
SAMPLING DEPTH/INTERVAL (ft)	0.5'-1'		2'-2.5'		0.5'-1'		2'-2.5'		0'-0.5'		2'-2.5'		0'-0.5'		1'-1.5'			
VOLATILE ORGANICS (µg/Kg)	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag		
Chloromethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Bromomethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Vinyl Chloride	nd 2	U	nd 2	U	nd 2	UJ	nd 2	UJ	nd 2	U	nd 2	U	nd 2	U	nd 2	UJ	nd	
Chloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Methylene Chloride	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Acetone	nd 10	U	nd 10	U	nd 10	UJ	nd 10	UJ	nd 10	U	nd 10	U	nd 10	U	nd 10	UJ	nd	
Carbon Disulfide	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,1-Dichloroethene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,1-Dichloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
cis-1,2-Dichloroethene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
trans-1,2-Dichloroethene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Chloroform	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,2-Dichloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
2-Butanone	nd 10	U	nd 10	U	nd 10	UJ	nd 10	UJ	nd 10	U	nd 10	U	nd 10	U	nd 10	UJ	nd	
1,1,1-Trichloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Carbon Tetrachloride	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Bromodichloromethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,2-Dichloropropane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
trans-1,3-Dichloropropene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Trichloroethene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Dibromochloromethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,1,2-Trichloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Benzene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
cis-1,3-Dichloropropene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Bromoform	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
4-Methyl-2-Pentanone	nd 10	U	nd 10	U	nd 10	UJ	nd 10	UJ	nd 10	U	nd 10	U	nd 10	U	nd 10	UJ	nd	
2-Hexanone	nd 10	U	nd 10	U	nd 10	UJ	nd 10	UJ	nd 10	U	nd 10	U	nd 10	U	nd 10	UJ	nd	
Tetrachloroethene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
1,1,2,2-Tetrachloroethane	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Toluene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Chlorobenzene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Ethylbenzene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Styrene	nd 5	U	nd 5	U	nd 5	UJ	nd 5	UJ	nd 5	U	nd 5	U	nd 5	U	nd 5	UJ	nd	
Total Xylenes	nd 10	U	nd 10	U	nd 10	UJ	nd 10	UJ	nd 10	U	nd 10	U	nd 10	U	nd 10	UJ	nd	
SEMI-VOLATILE ORGANICS (µg/Kg)	PQL	Flag	PQL	Flag	PQL	Flag	PQL	Flag	QL	Flag	QL	Flag	QL	Flag	PQL	Flag		
Naphthalene	1900 660		nd 660	U	2600 660		nd 660	U	nd 3300	UD	2000 1320		4900 3300		nd 660	U	4900	30000
Acenaphthylene	nd 660	U	nd 660	U	nd 660	U	nd 660	U	nd 3300	UD	nd 1320	UD	nd 3300	UD	nd 660	U	nd	21000^
Acenaphthene	1500 1200		940 1200		nd 1200	U	nd 1200	U	nd 6000	UD	4400 2400		12000 6000		nd 1200	U	12000	200,000
Fluorene	nd 140	U	nd 140	U	240 140		nd 140	U	nd 700	UD	nd 280	UD	nd 700	UD	nd 140	U	240	160,000
Phenanthrene	1800 660		nd 660	U	1200 660		nd 660	U	nd 3300	UD	2300 1320		4700 3300		nd 660	U	4700	21000^
Anthracene	nd 660	U	nd 660	U	nd 660	U	nd 660	U	nd 3300	UD	nd 1320	UD	nd 3300	UD	nd 660	U	nd	4300000
Fluoranthene	2500 660		910 660		2400 660		nd 660	U	6400 3300		4600 1320		8600 3300		nd 660	U	8600	980,000
Pyrene	2100 180		440 180		1400 180		nd 180	U	5300 900		3700 360		8600 900		nd 180	U	8600	1,400,000
Benzo (a) Anthracene	1600 8.7		340 8.7		970 8.7		nd 8.7	U	2500 43.5		1800 17.4		4200 43.5		28 8.7		4200	700
Chrysene	1100 100		350 100		930 100		nd 100	U	2300 500		1500 200		3900 500		nd 100	U	3900	1000
Benzo (b) Fluoranthene	1300 11		460 11		1200 11		nd 11	U	2400 55		1600 22		3800 55		nd 11	U	3800	900
Benzo (k)Fluoranthene	530 11		170 11		440 11		nd 11	U	1100 55		540 22		1700 55		nd 11	U	1700	4000
Benzo (a) Pyrene	1300 15		410 15		1000 15		nd 15	U	2400 75		1700 30		4300 75		nd 15	U	4300	90
Indeno (1,2,3-cd) Pyrene	820 29		290 29		680 29		nd 29	U	1600 145		1100 58		2700 145		nd 29	U	2700	900
Dibenzo (a,h) Anthracene	nd 20	U	nd 20	U	nd 20	U	nd 20	U	nd 100	UD	nd 40	UD	nd 100	UD	nd 20	U	nd	90
Benzo (g,h,i) Perylene	1500 51		770 51		1500 51		nd 51	U	2800 255		1900 102		4600 255		nd 51	U	4600	21000^
Lab Name	IEA		IEA		IEA		IEA		IEA		IEA		IEA		IEA			
SVOC Dilution Factor	1		1		1		1		5		2		5		1			
Analytical Method	SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310		SW-846 8260A or 8310			
Source Document(s)	1		1		1		1		1		1		1		1			

1 Loose Lab Sheet provided by IEA, Schaumburg, IL August, 1996
nd Not detected
PQL Practical Quantitation Limit
QL Quantitation Limit; sample specific and equal to the PQL multiplied by the dilution factor
Flag Data qualifier
U This compound was not detected in the sample above the PQL
UD This compound was not detected above the elevated PQL in this diluted analysis
* Preliminary Soil Target Level, as provided by IEPA in their July 7, 1995 approval letter to the Phase II Work Plan
^ Total Acenaphthylene, Benzo (g,h,i) perylene and Phenanthrene not to exceed 21,000 ug/kg
[ ] Indicates detected compound concentration exceeds PSTL