DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

July 29, 2003

Formerly Utilized Sites Remedial Action Program

SUBJECT: Transmittal of Second Quarter (April 1 – June 30, 2003) Calendar Year 2003 Federal Facility Agreement (FFA) Progress Report for the FUSRAP St. Louis Sites

Mr. Dan Wall
U. S. Environmental Protection Agency
Region VII, Superfund Branch
901 North 5th Street
Kansas City, Kansas 66101

Dear Mr. Wall:

Please find enclosed the Second Quarter (April 1 – June 30, 2003) Calendar Year 2003 Federal Facility Agreement (FFA) Progress Report for the Formerly Utilized Sites Remedial Action Program (FUSRAP) St. Louis Sites. This report summarizes activities accomplished during the quarter. Also identified are planned but not accomplished activities for the second quarter and activities planned for the third quarter of 2003.

Copies of this report have been forwarded to Mr. Robert Geller and Mr. Eric Gilstrap of the Missouri Department of Natural Resources. If you have any questions concerning this report, please contact Dr. Greg Hempen at (314) 260-3939.

Sincerely,

Sharon R. Cotner
FUSRAP Program Manager

Enclosure

SECOND QUARTER CALENDAR YEAR (CY) 2003
FEDERAL FACILITY AGREEMENT PROGRESS REPORT

1. ACTIVITIES ACCOMPLISHED FOR SECOND QUARTER CY 2003 (April 1, 2003 – June 30, 2003)

Community Outreach

- Conducted three St. Louis Oversight Committee Meetings this quarter (April 11th, May 9th, and June 13th).
- Presented project information for: National Academy of Science on May 12th; Washington University Environmental Sciences class on June 4th; St. Louis Economic Council on June 13th; and, Health and Environmental Justice-St. Louis on June 24th.
- Published and issued the St. Louis FUSRAP Sites spring newsletter.
- Updated the FUSRAP web pages by providing monthly updates for project schedules and documents including monthly meeting minutes and presentations for the St. Louis Oversight Committee web pages.
- Announced the release of the North County Feasibility Study/Proposed Plan (FS/PP) for public review and comment over a 30-day period by: mailing notification letters to the FUSRAP site mailing list on April 30th; publishing a notice of availability in the Federal Register on May 1st; and, publishing display ads in the St. Louis North County Journal and the St. Louis Post-Dispatch on April 30th and May 1st, respectively.
- Issued news releases for the 5-Year Review of the St. Louis Sites and the North County FS/PP.
- Developed and published a web page to briefly explain the 5-year review process and schedule. Also developed and published a web page for the North County FS/PP providing electronic access to these documents and other general supporting information (fact sheets, announcements, comment submission and public meeting transcript).
- Provided interviews regarding the release of the North County Feasibility Study and Proposed Plan to KWMU – FM 90.7, KMOX – AM 1120, KTRS – AM 550, and the St. Louis Post Dispatch.
- Extended the 30-day public review period for the North County FS/PP by 45 days to July 14th upon timely receipt of a request for extension from a local stakeholder, and announced the extension on the web page and in the spring newsletter.
- Hosted public meeting at the Hazelwood Civic Center-East on May 29th to accept verbal and written comments from the public on the North County FS/PP.
- Produced and distributed fact sheets and posters summarizing the alternatives identified in the North County FS/PP.

All Sites

- Table 1 lists the documents completed in the quarter.

St. Louis Airport Site (SLAPS)

- Completed excavation activity in Phase 1, except for approximately 15 percent of SU-27 impacted by excavation water. Weather has impacted efforts to complete the last SU of Phase 1 and backfill of this area as planned.
- Completed excavation, verification, and backfill of the McDonnell Boulevard South Ditch in SU-15 and SU-16.
- Shipped a total of 80,179 cubic yards of contaminated material to U.S. Ecology of Idaho this Fiscal Year 2003 (October 1, 2002 through June 30, 2003).
- Discharged 666,000 gallons of water for release in accordance with the MSD permit in the second quarter. Since the beginning of the project, a total of 786,000 gallons of water has been released.

Table 1. Documents Issued During the Second Quarter CY 2003

Document Title	Review Status	Document Date
Feasibility Study for the St. Louis North County Site	Final	05/01/03
Proposed Plan for the St. Louis North County Site	Final	05/01/03
Phase 1 Ground-Water Remedial Action Alternative Assessment (GRAAA) at SLDS	Regulatory Review	04/14/03
Phase 1 Ground-Water Remedial Action Alternative Assessment (GRAAA) at SLDS	Final	06/30/03
Small Area WASD - Appendix A.7.1 - Mallinckrodt Plant 7E RAWD Revision B	Regulatory Review	04/15/03
Small Area WASD - Appendix A.7.1 - Mallinckrodt Plant 7E RAWD Revision 0	Final	05/27/03

Note: Only Final and Regulatory Review Documents are reported in this report.

St. Louis Downtown Site (SLDS)

- Completed excavation and verification activities at Plant 6 East Half. Shipped 1,772 cubic yards of soil from Plant 6 East Half to U.S. Ecology of Idaho.
- Completed remediation of the pipe pedestal area adjacent to the TVW foundation area in Plant 1.
- Completed restoration activities at the Midwest Waste Vicinity Property (DT-7).
- Completed Heintz Steel and Manufacturing Vicinity Property (DT-8) Phase I remedial activities and shipped 82 cubic yards of soil to U.S. Ecology of Idaho.
- Supported Thomas and Proetz Lumber Company Vicinity Property (DT-10) property development (concrete pad in northern storage shed) by excavating and shipping 75 cubic yards of soil to U.S. Ecology of Idaho.
- Released 136,800 gallons of water during the second quarter, of which 100,400 gallons were from Plant 6 East Half. Since the beginning of the project, a total of 6,625,000 gallons of water has been released.

2. ACTIVITIES PLANNED FOR THE SECOND QUARTER CY 2003 (April 1, 2003 – June 30, 2003) BUT NOT ACCOMPLISHED

St. Louis Airport Sites (SLAPS)

- Phase 1 backfill completion has been delayed due to weather.

St. Louis Downtown Site (SLDS)

- Initiation of remedial activities at Plant 7 East was delayed to complete other work.

3. ACTIVITIES PLANNED FOR THIRD QUARTER CY 2003 (July 1, 2003 – September 30, 2003)

All Sites

- Complete the Annual Environmental Monitoring Data and Analysis Report for CY02.
- Complete the FUSRAP St. Louis Sites Five-Year Review.

St. Louis Airport Sites (SLAPS)

- Complete removal and verification of Phase 1.
- Complete asphalt shoulder restoration along McDonnell Boulevard.

St. Louis Downtown Site (SLDS)

- Complete concrete paving and restoration of Plant 6 East Half.
- Initiate remediation activities at Plant 7 East.
- Continue removal activities at Heintz Steel VP (DT-6).

4. DATA OBTAINED IN SECOND QUARTER CY 2003 (April 1, 2003 – June 30, 2003)

Table 2 summarizes the samples obtained from each site and their respective purposes. All data is available in electronic form. Any request for actual data, in part or total, will be provided to the requestor as the entire electronic quarterly data file.

The Quarterly Discharge Monitoring Report for the North County Sites is included (See Attachment A).

The Quarterly MSD Self-Monitoring Reports for the St. Louis Downtown Site are included (See Attachment B).

Table 2. Second Quarter 2003 Sample Summary

FUSRAP Site	Event Description	Medium	Number	Sample Type	Purpose
Coldwater Creek	Coldwater Creek-Environmental Monitoring-1Q2003	Water	12	Grab	Environmental
HISS	Environmental TLDs-Environmental Monitoring--1Q2003	Air	7	Grab	Environmental
	Groundwater-Environmental Monitoring-1Q2003	Water	6	Grab	Environmental
	Groundwater-Environmental Monitoring-2Q2003	Water	3	Grab	Environmental
	HISS Air (Particulate Air)-Environmental Monitoring	Air	10	Grab	Environmental
	HISS NPDES-Environmental Monitoring	Water	15	Composite	Environmental
SLAPS	Environmental TLDs-Environmental Monitoring--1Q2003	Air	7	Grab	Environmental
	Groundwater-Environmental Monitoring-1Q2003	Water	4	Grab	Environmental
	Groundwater-Environmental Monitoring-2Q2003	Water	23	Grab	Environmental
	Hot Zones (TRANSFER)	Soil	2	Grab	Verification
	SLAPS Air (Particulate Air)-Environmental Monitoring	Air	30	Grab	Environmental
	SLAPS Diesel/Gasoline-Waste Characterization	Non-Aqueous Liquid	3	Grab	Characterization
	SLAPS East End (SU #14)-Verification-Class 1	Soil	6	Grab	Verification
	SLAPS East End (SU #14)-Verification-Class 1	Soil	2	Grab	Verification
	SLAPS East End (SU #15)-Inaccessible Soils Evaluation	Soil	4	Grab	Characterization
	SLAPS East End (SU #15)-Preferential Pathway Investigation	Soil	3	Grab	Characterization
	SLAPS East End (SU #15)-Verification-Class 1	Soil	14	Grab	Verification
	SLAPS East End (SU #15)-Verification-Class 1	Soil	22	Grab	Verification
	SLAPS MSD-Compliance	Water	16	Grab	Characterization
	SLAPS NPDES-Environmental Monitoring	Water	48	Grab	Environmental
	SLAPS Offsite Laboratory (ARDL)-Waste Characterization	Waste Water	4	Grab	Characterization
	Radium Pits (SU #16)-Inaccessible Soils Evaluation	Soil	1	Grab	Characterization
SLAPS VP	VP 02-Characterization	Soil	55	Grab	Characterization
	VP 02L-Characterization	Soil	1	Grab	Characterization
	VP 02L-Characterization	Soil	16	Grab	Characterization
	VP 02-Verification-Class 2	Soil	13	Grab	Verification
	VP 05C-Verification-Class 2	Soil	34	Grab	Verification
	VP 05C-Characterization	Soil	2	Grab	Characterization
	VP 05-Verification-Class 3	Soil	15	Grab	Verification
	VP 07C-Characterization	Soil	13	Grab	Characterization
	VP 07-Verification-Class 2	Soil	14	Grab	Verification
	VP 07-Verification-Class 3	Soil	8	Grab	Verification
	VP 17-Characterization	Soil	2	Grab	Characterization

Table 2. Second Quarter 2003 Sample Summary (cont.)

FUSRAP Site	Event Description	Medium	Number	Sample Type	Purpose
SLAPS VP	VP 17-Verification-Class 3	Soil	2	Grab	Verification
	VP 20A-Verification-Class 2	Soil	8	Grab	Verification
	VP 25-Characterization	Soil	4	Grab	Characterization
	VP 25-Verification-Class 2	Soil	12	Grab	Verification
	VP 25-Verification-Class 3	Soil	22	Grab	Verification
SLDS	Baker Tank (MSD)	Water	4	Grab	Characterization
	Environmental TLDs-Environmental Monitoring--1Q2003	Air	5	Grab	Environmental
	Groundwater-Environmental Monitoring-2Q2003	Water	10	Grab	Environmental
	Plant 6EH (SU #4)-Preferential Pathway Investigation	Soil	1	Grab	Characterization
	Plant 6EH (SU #4)-Verification-Class 1	Soil	4	Grab	Verification
	Plant 6EH (SU #4)-Verification-Class 1	Soil	2	Grab	Verification
	Plant 6EH (SU #5)-Inaccessible Soils Evaluation	Soil	13	Grab	Characterization
	Plant 6EH (SU #7)-Preferential Pathway Investigation	Soil	16	Grab	Characterization
	Plant 6EH (SU #7)-Verification-Class 1	Soil	18	Grab	Verification
	Plant 6EH (SU #7)-Verification-Class 1	Soil	20	Grab	Verification
	Plant 6EH (SU #8)-Preferential Pathway Investigation	Soil	7	Grab	Characterization
	Plant 6EH (SU #8)-Preferential Pathway Investigation	Soil	6	Grab	Characterization
	Plant 6EH (SU #8)-Verification-Class 1	Soil	10	Grab	Verification
	Plant 7E-Delineation	Soil	28	Grab	Verification
	Plant 7N-PDI	Soil	13	Grab	Characterization
	Plant 7S-PDI	Soil	1	Grab	Characterization
	Plant 7S-Verification-Class 2	Soil	21	Grab	Verification
SLDS VP	PSC Metals (DT-8)-PDI	Soil	49	Grab	Characterization
	PSC Metals (DT-8)-Verification-Class 2	Soil	38	Grab	Verification
	Lange-Stegmann-Characterization	Soil	7	Grab	Characterization
	Thomas & Proetz Lumber Company (DT-10)-PDI	Soil	3	Grab	Characterization

ATTACHMENT A

NPDES QUARTERLY DISCHARGE MONITORING REPORT FOR THE NORTH COUNTY SITES

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

July 25, 2003

Formerly Utilized Sites Remedial Action Program

Subject: Second Quarter of 2003 Discharge Report for NPDES Permit MO-0111252 and Applicable or Relevant and Appropriate Requirements (ARARs) for Discharges to the Waters of the State at the St. Louis Airport Site (SLAPS), St. Louis, Missouri

Mr. Kurt Riebeling
Chief, Water Unit
Missouri Department of Natural Resources
7545 South Lindbergh, Suite 210
St. Louis, Missouri 63125

Dear Mr. Riebeling:

In accordance with NPDES Permit MO-0111252 for the Hazelwood Interim Storage Site (HISS), and the substantive requirements for storm-water discharge to the waters of the state at the St. Louis Airport Site (SLAPS), St. Louis, MO, this letter transmits the storm-water discharge monitoring report for the second quarter of 2003. Attachment A of this report contains the available analytical results for the second quarter of 2003 for storm-water Outfalls 001, 002, and 003 at HISS. Attachment B contains the analytical results for storm-water Outfalls 001a, 001b, 002, and 003 at SLAPS.

- Hazelwood Interim Storage Site (HISS)

  During the second quarter of 2003, permit-specified parameters were measured in April, May, and June. Total organic halogen (TOX) results for Outfall 001 were found to be positive requiring analysis of the volatile (VOC) and semi-volatile (SVOC) organic compounds to identify the specific constituent, as specified in the permit. As such, analysis for VOC and SVOC was conducted on the sample. Acetone, phenol and carbon disulfide were present at an estimated quantity below the practical quantitation limit (PQL) for Outfall 001. Acetone is often associated with laboratory contamination.

  A rain event on the evening of June 26th caused a straw bale to lodge in the primary measuring device of Outfall 001, which prevented accurate flow measurement from June 27th – 30th. Therefore, the flow data for Outfall 001 for June 27th - 30th was not used in calculating the monthly average.

- St. Louis Airport Site (SLAPS)

  There are no exceedences to report per the monitoring requirements of the permit. During the second quarter of 2003 there were thirteen rainfall events. The last event for the quarter started on June 30th and continued into the next quarter. This event will be included on the third quarter report.

  As per MDNR letter from Mr. Matthew Sikes addressed to Ms. Sharon Cotner dated 2/19/02, sampling at SLAPS Outfall 002 has been reduced to once a year, and sampling at Outfall 003 has been discontinued.

If you have any questions concerning this report, please contact me at (314) 260-3905.

Sincerely,

Sharon Cotner

Ms. Sharon Cotner
FUSRAP Program Manager

Enclosures

ATTACHMENT A

QUARTERLY DISCHARGE MONITORING REPORT FOR THE HAZELWOOD INTERIM STORAGE SITE

Second Quarter 2003 – Storm-water Discharge Monitoring Report
Hazelwood Interim Storage Site, St. Louis, MO

FACILITY NAME	PERMIT NUMBER	COUNTY	OWNER	FACILITY CONTACT
Hazelwood Interim Storage Site (HISS)[1]	MO-0111252	St. Louis	Jarboe Realty Investment	S.R. Cotner, Program Manager, USACE
OPERATOR OF FACILITY			**TYPE OF FACILITY**	
United States Army Corps of Engineers (USACE)			Standard Industrial Classification –9999, non-classifiable[1]	
REQUIRED FREQUENCY OF MONITORING				**THIS REPORT COVERS**
Flow and rainfall – daily; Settleable solids – monthly; Other parameters[2] – quarterly				2nd Quarter- April 2003 – June 2003
SAMPLES COLLECTED BY: SAIC				
ANALYSIS PERFORMED BY				
Severn-Trent (chemical analyses) and St. Louis Sites Radioanalytical Laboratory (radiological analyses)				
SAMPLE LOCATION	**EVENT 1**		**EVENT 2**	**EVENT 3**
Outfall 1	04/17/03		05/05/03	06/11/03
Outfall 2	04/17/03		05/05/03	06/11/03
Outfall 3	04/17/03		05/05/03	06/11/03
REPORT APPROVED BY OWNER S.R. Cotner for USACE				**DATE** 7/25/03

NOTES:

[1] HISS is a CERCLA NPL site.

[2] Collect quarterly samples in the months of March, June, September, and December for pH, specific conductance, total organic carbon (TOC), total organic halogen (TOX), gross alpha, gross beta, Pb-210, Ra-226, Ra-228, Uranium (total), Th-230, and Th-232.

MONITORING PARAMETER	LIMITS[1]	UNITS[2]	ANALYTICAL RESULTS AND DATA QUALIFIERS			SAMPLE TYPE	REMARKS and COMMENTS
			OUTFALL 1	OUTFALL 2	OUTFALL 3		
Settleable solids[3]: April	Daily max=1.5 Monthly avg=1.0	mL/L/hr	<0.20[4]	<0.20[4]	<0.20[4]	Grab	
Settleable solids[3] May		mL/L/hr	<0.20[4]	<0.20[4]	<0.20[4]	Grab	
Settleable solids[3] June		mL/L/hr	<0.20[4]	<0.20[4]	<0.20[4]	Composite	
pH	6.0-9.0	SU	7.0	7.1	7.5	Composite	Taken in field
Specific conductance	Monitor Only	µmhos/cm	0.38	0.36	0.28	Composite	Taken in field
Total organic carbon	Monitor Only	mg/L	18	6.9	9.1	Composite	
Total organic halogen	Monitor Only	mg/L	19	<9.2[4]	<8.6[4]	Composite	
Gross alpha	Monitor Only	pCi/L	17	55	<7.6[4]	Composite	
Gross beta	Monitor Only	pCi/L	17	29	<13[4]	Composite	
Lead 210	Monitor Only	pCi/L	3.5[5]	<1.8[4]	<1.3[4]	Composite	Assumes secular equilibrium with Ra-226
Radium 226	Monitor Only	pCi/L	<3.5[5]	<1.8[4]	<1.3[4]	Composite	
Radium 228	Monitor Only	pCi/L	<1.2[4]	<1.2[4]	<1.7[4]	Composite	Assumes secular equilibrium with Th-228
Uranium, total	Monitor Only	pCi/L	24	54	8.8	Composite	Calculated Value: addition of iso-analysis
Thorium 230	Monitor Only	pCi/L	5.9	3.7	4.1	Composite	
Thorium 232	Monitor Only	pCi/L	<0.53[4]	<0.52[4]	<1.2[4]	Composite	
Rainfall	Monitor Only	inches	See Table 1	See Table 1	See Table 1	24-hr total	Continuous recorder
Flow	Monitor Only	MGD	See Table 1	See Table 1	See Table 1	24-hr total	Continuous recorder

NOTES:

1 Final limits as specified in the permit for settleable solids and pH.
2 Results are reported in required units per permit.
3 Settleable Solids Sample Method = EPA 160.5. See Table 2 for Data Qualifiers.
4 The MDA was used because the analysis did not result in a value above the MDA.
5 The MDA was used because isotopic analysis was reported as negative.
See Table 2 for VOC and SVOC data.

RAINFALL DATA FOR H[redacted]d SLAPS

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Apr	0.00			
2-Apr	0.00			
3-Apr	Trace			
4-Apr	0			
5-Apr	0			
6-Apr	0.59			
7-Apr	Trace			
8-Apr	0.07			
9-Apr	Trace			
10-Apr	0			
11-Apr	0			
12-Apr	0			
13-Apr	0			
14-Apr	0			
15-Apr	0			
16-Apr	1.2	0.094		
17-Apr	0	0.081	0.011	
18-Apr	0.12	0.027		
19-Apr	Trace			
20-Apr	0.03			
21-Apr	0.38			
22-Apr	0			
23-Apr	0			
24-Apr	0	0.25		
25-Apr	0.4			
26-Apr	0			
27-Apr	0			
28-Apr	0.39			
29-Apr	0.18	0.057		
30-Apr	0	0.15		
Monthly Average		0.022	0.00	

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-May	0.06			
2-May	Trace			
3-May	Trace			
4-May	0.78	0.12		
5-May	0.21	0.039		
6-May	0.51			
7-May	0	0.24		
8-May	Trace	0.079		
9-May	Trace			
10-May	1.02	0.16		
11-May	0	0.18		
12-May	0	0.22		
13-May	Trace			
14-May	0			
15-May	0.04			
16-May	0.08			
17-May	0.06			
18-May	0.01			
19-May	0.0			
20-May	0.01			
21-May	0.09			
22-May	0			
23-May	0.00			
24-May	0.55			
25-May	0.29	0.023		
26-May	0			
27-May	0			
28-May	0			
29-May	0			
30-May	0.26			
31-May	Trace			
Monthly Average		0.034		

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Jun	0			
2-Jun	0.55	0.028		
3-Jun	Trace	0.0095		
4-Jun	0			
5-Jun	0			
6-Jun	0.29	0.0098		
7-Jun	0	0.0033		
8-Jun	0			
9-Jun	0			
10-Jun	2.7	0.17		
11-Jun	0.18	0.83		
12-Jun	2.1	0.65		
13-Jun	0.86	0.46		
14-Jun	0			
15-Jun	0			
16-Jun	0			
17-Jun	0			
18-Jun	0			
19-Jun	0.45	0.45		
20-Jun	0			
21-Jun	0			
22-Jun	0			
23-Jun	0			
24-Jun	0			
25-Jun	3.3	0.53		
26-Jun	0.47	0.21		
27-Jun	0	0.14		
28-Jun	0	0.088		
29-Jun	0			
30-Jun	1.5	0.15		
Monthly Average		0.12		

Notes:
Flow measurements for the three outfalls are reported in million gallons per day (MGD) and reported to two significant digits. All blank spaces represent zero flow.
*A flow meter and automatic sampler are currently installed at Outfall 001a. Outfall 001b is an emergency spillway only.
** Outfall 002 is sampled annually per MDNR letter dated 2/19/02, as a result flow is not measured until a sample is collected.
*** As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

ATTACHMENT B

QUARTERLY DISCHARGE MONITORING REPORT FOR THE ST. LOUIS AIRPORT SITE

Second Quarter 2003 - Storm-water Discharge Monitoring Report
St. Louis Airport Site (SLAPS), St. Louis, MO

FACILITY NAME	PERMIT NUMBER	COUNTY	OWNER	FACILITY CONTACT
St. Louis Airport Site (SLAPS)[1]	No permit exists, currently working to the ARAR provided 10/02/98	St. Louis	St. Louis Airport Authority	S.R. Cotner, Program Manager, USACE
OPERATOR OF FACILITY		TYPE OF FACILITY		
United States Army Corps of Engineers (USACE)		Standard Industrial Classification–9999, non-classifiable		
REQUIRED FREQUENCY OF MONITORING				THIS REPORT COVERS
Flow-monthly, 24 hour estimate; Effluent Parameters *Chemical and radiological*[2]: monthly during rainfall that results in a discharge; *Radiological*[3]: per rainfall event that results in a discharge; *Radon* semi-annually during rainfall that results in a discharge; Monitoring Report-quarterly				2nd Quarter - April 1, 2003 - June 30, 2003
SAMPLES COLLECTED BY: Baywest, Shaw and Pangea personnel				
ANALYSIS PERFORMED BY: ARDL (chemical analyses); St. Louis Sites Radioanalytical Laboratory (radiological analyses); General Engineering Laboratories (radon in water analyses)				

SAMPLE LOCATION	EVENT[4] 1	EVENT 2	EVENT 3	EVENT 4	EVENT 5	EVENT 6	EVENT 7
Outfall 001a	04/16/03 - 04/18/03	4/24/2003	04/29/03 - 04/30/03	05/04/03 - 05/05/03	05/07/03 - 05/08/03	05/10/03 - 05/12/03	5/25/2003
Outfall 002	4/17/2003	[5]	[5]	[5]	[5]	[5]	[5]
Outfall 003	[13]	[13]	[13]	[13]	[13]	[13]	[13]

SAMPLE LOCATION	EVENT 8	EVENT 9	EVENT 10	EVENT 11	EVENT 12	EVENT 13[15]	
Outfall 001a	06/02/03 - 06/03/03	06/06/2003 - 06/07/03	06/10/03 - 06/13/03	6/19/2003	06/25/03 - 06/28/03		
Outfall 002	[5]	[5]	[5]	[5]	[5]		
Outfall 003	[13]	[13]	[13]	[13]	[13]		

REPORT APPROVED BY OWNER S.R. Cotner on behalf of USACE DATE 7/25/03

NOTES: (NUMBERING SYSTEM HAS BEEN KEPT CONSISTENT ON EACH PAGE TO REDUCE CONFUSION)

[1] SLAPS is a CERCLA NPL site.

[2] Collect monthly grab samples for the following parameters: oil and grease, total petroleum hydrocarbons, pH, chemical oxygen demand, recoverable arsenic, total recoverable lead, total recoverable chromium, total recoverable copper, total recoverable cadmium, polychlorinated uranium, total radium, total thorium, gross alpha, gross beta, protactinium-231, and actinium-227.

[3] Collect grab samples per rainfall event for the following parameters: total uranium, total radium, total thorium, gross alpha, gross beta, protactinium-231, and actinium-227.

[4] An event is defined as a measurable increase in discharge rate from precipitation producing 0.1 inch or more of liquid in a 24 hour period, or (such as following treatment). An event may exceed duration of 24 hours, and two events experienced within 48 hours may be reported together.

[5] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 002 has been reduced to once a year.

[6] ND = No Discharge

[7] Results are reported in required units.

[8] DL= Detection Limit

[9] Value reported is based on a volume weighted average of analyte activity concentrations for samples collectec during the defined event. Corresponding radiological samples were collected on the same date as chemical samples, however, the radiological results are incorporated into the volume weighted average for the specified event.

[10] As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

[11] Total nuclide values in ug/L units were calculated using the activity concentration values reported by the laboratory and values for specific activity listed in Table 8.4.1 of The Health Physics and Radiological Health Handbook, 1992 Edition

[12] It is assumed that Ra-228 and Th-228 are in secular equilibrium with Th-232, therefore, Th-232 results are used to estimate Ra-228 and Th-228 values.

[13] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

[14] Waiting on data results from the laboratory.

[15] Event 13 was started on June 30th and continued through the next quarter. This event will be included in the 3rd Quarter NPDES Report.

Second Quarter 2003 - Storm-water Disc[redacted] Monitoring Report - Outfall 001a
St. Louis Airport Site (SLAPS), St. Louis, MO

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS[7]	ANALYTICAL RESULTS			SAMPLE TYPE	REMARKS and COMMENTS
	Daily Maximum	Monthly Average		Outfall 001a Chemical Parameters				
				April	May	June		
Flow	Monitor only	Monitor only	MGD	0.094	0.12	[14]	24-hr estimate	
Oil and Grease	15	10	mg/L	non-detect	non-detect	[14]	Grab	
Total Petroleum Hydrocarbons	10	10	mg/L	non-detect	non-detect	[14]	Grab	
pH-Units	6.0-9.0	NA	SU	7.4	7	[14]	Grab	
Chemical Oxygen Demand	120	90	mg/L	non-detect	non-detect	[14]	Grab	
Settleable Solids	1.5	1	mL/L/hr	non-detect	non-detect	[14]	Grab	DL[8] = 0.1 mL/L/hr
Arsenic, Total Recoverable	100	100	µg/L	non-detect	non-detect	[14]	Grab	
Lead, Total Recoverable	190	190	µg/L	non-detect	non-detect	[14]	Grab	
Chromium, Total Recoverable	280	280	µg/L	non-detect	non-detect	[14]	Grab	
Copper, Total Recoverable	84	84	µg/L	13	non-detect	[14]	Grab	
Cadmium, Total Recoverable	94	94	µg/L	non-detect	non-detect	[14]	Grab	
Polychlorinated Biphenyls	No release	No release	µg/L	non-detect	non-detect	[14]	Grab	DL[8] = 1 µg/L

				Radiological Parameters[9,12]							SAMPLE TYPE	
				Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7		
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	6.8E+01	7.1E+01	1.4E+02	1.2E+02	1.7E+02	1.9E+02	6.6E+01	Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	2.E-06	4.E-06	2.E-06	7.E-07	4.E-06	2.E-06	1.2E-06	Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	7.E+00	4.E+00	1.E+00	5.E+00	2.E+00	4.E+00	4.0E+00	Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	6.8E+01	8.3E+01	1.E+02	1.1E+02	1.7E+02	1.5E+02	9.E+01	Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	5.E+01	5.2E+01	4.5E+01	7.E+01	1.E+02	1.1E+02	5.E+01	Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	1.E-01	4.E-02	4.E-02	1.E-01	8.E-02	1.4E-01	1.2E-01	Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	1.E-01	4.E-02	4.E-02	1.E-01	8.E-02	1.4E-01	1.2E-01	Grab	
Radon	Monitor only	Monitor only	pCi/L	[redacted]								
				Event 8	Event 9	Event 10	Event 11	Event 12	[redacted]			
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	1.3E+02	9.4E+01	9.5E+01	4.9E+02	1.2E+02	[redacted]		Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	2.E-06	5.E-06	1.1E-06	6.E-06	1.9E-06	[redacted]		Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	5.E+00	2.E+01	5.1E+00	1.E+01	5.5E+00	[redacted]		Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	2.E+02	2.E+02	1.E+02	2.5E+02	6.5E+01	[redacted]		Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	7.E+01	9.E+01	8.2E+01	2.E+02	3.1E+01	[redacted]		Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	1.0E-01	2.E-01	1.E-01	2.5E-01	2.2E-01	[redacted]		Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	1.0E-01	2.E-01	1.E-01	2.5E-01	2.2E-01	[redacted]		Grab	

NOTES: (NUMBERING SYSTEM HAS BEEN KEPT CONSISTENT ON EACH PAGE TO REDUCE CONFUSION)

[5] As per MDNR letter from Mathew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 002 has been reduced to once a year.

[6] ND = No Discharge

[7] Results are reported in required units.

[8] DL= Detection Limit

[9] Value reported is based on a volume weighted average of analyte activity concentrations for samples collected during the defined event. Corresponding radiological samples were collected on the same date as chemical samples, however, the radiological results are incorporated into the volume weighted average for the specified event.

[10] As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

[11] Total nuclide values in ug/L units were calculated using the activity concentration values reported by the laboratory and values for specific activity listed in Table 8.4.1 of The Health Physics and Radiological Health Handbook, 1992 Edition

[12] It is assumed that Ra-228 and Th-228 are in secular equilibrium with Th-232, therefore, Th-232 results are used to estimate Ra-228 and Th-228 values.

[13] As per MDNR letter from Mathew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

[14] Waiting on data results from the laboratory.

[15] Event 13 was started on June 30th and continued through the next quarter. This event will be included in the 3rd Quarter NPDES Report.

Second Quarter 2003 - Storm-water Discharge M[redacted]ing Report - Outfall 002
St. Louis Airport Site (SLAPS), St. Louis, MO

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS[7]	ANALYTICAL RESULTS Outfall 002 Chemical Parameters			SAMPLE TYPE	REMARKS and COMMENTS
	Daily Maximum	Monthly Average		April	May	June		
Flow	Monitor only	Monitor only	MGD	0.011	[5]	[5]	24-hr estimate	
Oil and Grease	15	10	mg/L	non-detect	[5]	[5]	Grab	
Total Petroleum Hydrocarbons	10	10	mg/L	non-detect	[5]	[5]	Grab	
pH-Units	6.0-9.0	NA	SU	7.3	[5]	[5]	Grab	
Chemical Oxygen Demand	120	90	mg/L	non-detect	[5]	[5]	Grab	
Settleable Solids	1.5	1	mL/L/hr	non-detect	[5]	[5]	Grab	DL[8] = 0.1 mL/L/hr
Arsenic, Total Recoverable	100	100	µg/L	non-detect	[5]	[5]	Grab	
Lead, Total Recoverable	190	190	µg/L	non-detect	[5]	[5]	Grab	
Chromium, Total Recoverable	280	280	µg/L	non-detect	[5]	[5]	Grab	
Copper, Total Recoverable	84	84	µg/L	non-detect	[5]	[5]	Grab	
Cadmium, Total Recoverable	94	94	µg/L	non-detect	[5]	[5]	Grab	
Polychlorinated Biphenyls	No release	No release	µg/L	non-detect	[5]	[5]	Grab	DL[8] = 1 µg/L

				Radiological Parameters[9,12]							SAMPLE TYPE	
				Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7		
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	2.3E-01	[5]	[5]	[5]	[5]	[5]	[5]	Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	6.7E-07	[5]	[5]	[5]	[5]	[5]	[5]	Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	6.3E+00	[5]	[5]	[5]	[5]	[5]	[5]	Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	3.E+00	[5]	[5]	[5]	[5]	[5]	[5]	Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	4.9E+01	[5]	[5]	[5]	[5]	[5]	[5]	Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	4.7E-02	[5]	[5]	[5]	[5]	[5]	[5]	Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	4.7E-02	[5]	[5]	[5]	[5]	[5]	[5]	Grab	
Radon	Monitor only	Monitor only	pCi/L	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		
				Event 8	Event 9	Event 10	Event 11	Event 12	[redacted]	[redacted]		
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	[5]	[5]	[5]	[5]	[5]	[redacted]	[redacted]	Grab	

NOTES: (NUMBERING SYSTEM HAS BEEN KEPT CONSISTENT ON EACH PAGE TO REDUCE CONFUSION)

[5] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 002 has been reduced to once a year.

[6] ND = No Discharge

[7] Results are reported in required units.

[8] DL= Detection Limit

[9] Value reported is based on a volume weighted average of analyte activity concentrations for samples collected during the defined event. Corresponding radiological samples were collected on the same date as chemical samples, however, the radiological results are incorporated into the volume weighted average for the specified event.

[10] As specified in the permit, radionuclides require monitoring only, and limits are not permit specified.

[11] Total nuclide values in ug/L units were calculated using the activity concentration values reported by the laboratory and values for specific activity listed in Table 8.4.1 of The Health Physics and Radiological Health Handbook, 1992 Edition

[12] It is assumed that Ra-228 and Th-228 are in secular equilibrium with Th-232, therefore, Th-232 results are used to estimate Ra-228 and Th-228 values.

[13] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

[14] Waiting on data results from the laboratory.

[15] Event 13 was started on June 30th and continued through the next quarter. This event will be included in the 3rd Quarter NPDES Report.

Second Quarter 2003 - Storm-water Discharge M[illegible]ring Report - Outfall 003
St. Louis Airport Site (SLAPS), St. Louis, MO

MONITORING PARAMETER	FINAL EFFLUENT LIMITATIONS		UNITS[7]	ANALYTICAL RESULTS Outfall 003 Chemical Parameters			SAMPLE TYPE	REMARKS and COMMENTS
	Daily Maximum	Monthly Average		April	May	June		
Flow	Monitor only	Monitor only	MGD	[13]	[13]	[13]	24-hr estimate	
Oil and Grease	15	10	mg/L	[13]	[13]	[13]	Grab	
Total Petroleum Hydrocarbons	10	10	mg/L	[13]	[13]	[13]	Grab	
pH-Units	6.0-9.0	NA	SU	[13]	[13]	[13]	Grab	
Chemical Oxygen Demand	120	90	mg/L	[13]	[13]	[13]	Grab	
Settleable Solids	1.5	1	mL/L/hr	[13]	[13]	[13]	Grab	DL[8] = 0.1 mL/L/hr
Arsenic, Total Recoverable	100	100	µg/L	[13]	[13]	[13]	Grab	
Lead, Total Recoverable	190	190	µg/L	[13]	[13]	[13]	Grab	
Chromium, Total Recoverable	280	280	µg/L	[13]	[13]	[13]	Grab	
Copper, Total Recoverable	84	84	µg/L	[13]	[13]	[13]	Grab	
Cadmium, Total Recoverable	94	94	µg/L	[13]	[13]	[13]	Grab	
Polychlorinated Biphenyls	No release	No release	µg/L	[13]	[13]	[13]	Grab	DL[8] = 1 µg/L

				Radiological Parameters[9,12]							SAMPLE TYPE	
				Event 1	Event 2	Event 3	Event 4	Event 5	Event 6	Event 7		
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[13]	[13]	Grab	
Radon	Monitor only	Monitor only	pCi/L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
				Event 8	Event 9	Event 10	Event 11	Event 12	[illegible]	[illegible]		
Uranium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	Calculated estimates
Radium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	Calculated estimates
Thorium, Total[10,11]	Monitor only	Monitor only	µg/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	Calculated estimates
Gross Alpha[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	
Gross Beta[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	
Protactinium-231[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	
Actinium-227[10]	Monitor only	Monitor only	pCi/L	[13]	[13]	[13]	[13]	[13]	[illegible]	[illegible]	Grab	

NOTES: (NUMBERING SYSTEM HAS BEEN KEPT CONSISTENT ON EACH PAGE TO REDUCE CONFUSION)

[5] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 002 has been reduced to once a year.

[6] ND = No Discharge

[7] Results are reported in required units.

[8] DL= Detection Limit

[9] Value reported is based on a volume weighted average of analyte activity concentrations for samples collected during the defined event. Corresponding radiological samples were collected on the same date as chemical samples, however, the radiological results are incorporated into the volume weighted average for the specified event.

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[12] It is assumed that Ra-228 and Th-228 are in secular equilibrium with Th-232, therefore, Th-232 results are used to estimate Ra-228 and Th-228 values.

[13] As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

[14] Waiting on data results from the laboratory.

[15] Event 13 was started on June 30th and continued through the next quarter. This event will be included in the 3rd Quarter NPDES Report.

RAINFALL DATA FOR HIS[redacted]SLAPS

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Apr	0.00			
2-Apr	0.00			
3-Apr	Trace			
4-Apr	0			
5-Apr	0			
6-Apr	0.59			
7-Apr	Trace			
8-Apr	0.07			
9-Apr	Trace			
10-Apr	0			
11-Apr	0			
12-Apr	0			
13-Apr	0			
14-Apr	0			
15-Apr	0			
16-Apr	1.2	0.094		
17-Apr	0	0.081	0.011	
18-Apr	0.12	0.027		
19-Apr	Trace			
20-Apr	0.03			
21-Apr	0.38			
22-Apr	0			
23-Apr	0			
24-Apr	0	0.25		
25-Apr	0.4			
26-Apr	0			
27-Apr	0			
28-Apr	0.39			
29-Apr	0.18	0.057		
30-Apr	0	0.15		
Monthly Average		0.022	0.00	

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-May	0.06			
2-May	Trace			
3-May	Trace			
4-May	0.78	0.12		
5-May	0.21	0.039		
6-May	0.51			
7-May	0	0.24		
8-May	Trace	0.079		
9-May	Trace			
10-May	1.02	0.16		
11-May	0	0.18		
12-May	0	0.22		
13-May	Trace			
14-May	0			
15-May	0.04			
16-May	0.08			
17-May	0.06			
18-May	0.01			
19-May	0.0			
20-May	0.01			
21-May	0.09			
22-May	0			
23-May	0.00			
24-May	0.55			
25-May	0.29	0.023		
26-May	0			
27-May	0			
28-May	0			
29-May	0			
30-May	0.26			
31-May	Trace			
Monthly Average		0.034		

Date	(inches)	Outfall	Outfall	Outfall
2003	24-hour total	001a*	002**	3***
1-Jun	0			
2-Jun	0.55	0.028		
3-Jun	Trace	0.0095		
4-Jun	0			
5-Jun	0			
6-Jun	0.29	0.0098		
7-Jun	0	0.0033		
8-Jun	0			
9-Jun	0			
10-Jun	2.7	0.17		
11-Jun	0.18	0.83		
12-Jun	2.1	0.65		
13-Jun	0.86	0.46		
14-Jun	0			
15-Jun	0			
16-Jun	0			
17-Jun	0			
18-Jun	0			
19-Jun	0.45	0.45		
20-Jun	0			
21-Jun	0			
22-Jun	0			
23-Jun	0			
24-Jun	0			
25-Jun	3.3	0.53		
26-Jun	0.47	0.21		
27-Jun	0	0.14		
28-Jun	0	0.088		
29-Jun	0			
30-Jun	1.5	0.15		
Monthly Average		0.12		

Notes:
Flow measurements for the three outfalls are reported in million gallons per day (MGD) and reported to two significant digits. All blank spaces represent zero flow.
*A flow meter and automatic sampler are currently installed at Outfall 001a. Outfall 001b is an emergency spillway only.
** Outfal 002 is sampled annually per MDNR letter dated 2/19/02, as a result flow is not measured until a sample is collected.
*** As per MDNR letter from Matthew Sikes addressed to Sharon Cotner dated 02/19/02, sampling at outfall 003 has been discontinued.

ATTACHMENT B

MSD QUARTERLY SELF-MONITORING REPORT FOR SLS

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
8945 LATTY AVENUE
BERKELEY, MISSOURI 63134

REPLY TO
ATTENTION OF:

July 29, 2003

Formerly Utilized Sites Remedial Action Program

Subject: Quarterly Metropolitan Sewer District (MSD) Self-Monitoring Report for April Through June 2003, St. Louis Site

Mr. Ronald Biehl
St. Louis Metropolitan Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, Missouri 63147-2913

Dear Mr. Biehl:

The USACE is submitting the April through June 2003 quarterly self-monitoring report for the St. Louis Site. During this period, three (3) batches of wastewater from the St. Louis Airport Site (SLAPS) were discharged to the Metropolitan Sewer District (MSD). Also during this period five (5) discharges of wastewater from Plant 6EH operations at the St. Louis Downtown Site (SLDS) occurred.

In this quarter, 666,000 gallons of wastewater were discharged from SLAPS with a total activity of 9.7E-06 curies for Thorium; 2.6E-04 curies for Uranium (isotopic); and 3.8E-06 curies for Radium. The SLAPS discharges were placed into MSD Inlet 10L3-045S. The first batch (#3) consisted of 179,000 gallons and had no detectable barium or lead. A concentration of 0.16 mg/l of selenium was found which is less than the MSD limit. The second batch (#4) consisted of 487,000 gallons and again had no detectable barium or lead. The selenium concentration was below the MSD limit of 0.20 mg/l for both batches. Data for each discharge, including uranium analyses (KPA method) and total suspended solids, are enclosed for your information. A third batch was a discharge that extended well into the third quarter. The data for this third discharge (batch #5) have not been validated to this date. The data for the last discharge will be included in the next quarter's report.

For the calendar quarter a total of 100,400 gallons of wastewater from Plant 6EH operations were discharged with a total activity of 2.0E–06 curies for Thorium; 2.3E-05 curies for Uranium (iosotopic); and 1.1E-06 curies for Radium. The SLDS discharges were input to the MSD Base Map Inlet 17D3-022C. Data for each batch is enclosed for your information. Also included in this report are the results of uranium analyses (KPA method) and total suspended solids for each discharge.

Should you have any comments or questions regarding this letter, please feel free to contact either Dr. Greg Hempen at (314) 260-3939 or Mr. Ron Frerker at (314) 260-3936.

Sincerely,

Sharon Cotner

Sharon R. Cotner
FUSRAP Program Manager

Enclosures

FUSRAP SLAPS

Self Monitoring Report for 2nd Quarter for Inlet 10L3-045S

Parameter	Batch Number	Date of Discharge	Batch Results (pCi/L)	Amount Discharged (gal)	Total Activity per Discharge (Ci)	MSD Limits	Sum of the Ratios
Gross Alpha (raw water)	BK-003	06/11/03 - 06/18/03	83.83	179,000	5.7E-05	3,000	
Gross Beta			12.33		8.4E-06	N/A	
TH-228			0.98		6.6E-07	2,000	
TH-230			2.98		2.0E-06	1,000	
U-234			37.74		2.6E-05	3,000	
U-235			2.55		1.7E-06	3,000	
U-238			31.82		2.2E-05	3,000	
RA-226			0.56		3.8E-07	10	
RA-228(2)			0.98		6.6E-07	30	0.1
Barium			0.14 mg/l			10	
Lead			<0.022 mg/l			0.4	
Selenium			0.16 mg/l			0.2	
BOD(3)			NA mg/l				
COD(3)			NA mg/l				
Gross Alpha (TSS filter pad)			1.45				
Uranium (KPA)			51.54			3,000	
Total Suspended Solids			5.60 mg/l			30	
Gross Alpha (raw water)	BK-004	06/27/03 - 06/29/03	89.89	487,000	1.7E-04	3,000	
Gross Beta			17.77		3.3E-05	N/A	
TH-228			0.71		1.3E-06	2,000	
TH-230			3.07		5.7E-06	1,000	
U-234			53.21		9.8E-05	3,000	
U-235			2.67		4.9E-06	3,000	
U-238			60.07		1.1E-04	3,000	
RA-226			0.79		1.5E-06	10	
RA-228(2)			0.71		1.3E-06	30	0.2
Barium			0.097 mg/l			10	
Lead			<0.022 mg/l			0.4	
Selenium			0.18 mg/l			0.2	
BOD(3)			NA mg/l				
COD(3)			NA mg/l				
Gross Alpha (TSS filter pad)			3.43				
Uranium (KPA)			93.63			3,000	
Total Suspended Solids			7.88 mg/l			30	

NOTES:
1. Negative values are excluded from the calculation for total activity discharged.
2. Ra-228 assumed to be in equilibrium with Th-228
3. MSD surcharges apply for BOD concentrations greater than 300 mg/l and COD concentrations greater than 600 mg/l.
   NA - Not applicable since BOD and COD only has to be run on treated water.
   NR - Waiting for data from the lab

Total Activity Discharged in 2nd Quarter (Ci)

TH-228	2.0E-06
TH-230	7.7E-06
Uranium (Nat)	2.6E-04
RA-226	1.8E-06
$RA\text{-}228_{(2)}$	2.0E-06

There was no discharge in the 1st Quarter.

Total Volume Discharged in 2nd Quarter (gal)

Gallons	666,000

SLDS FUSRAP

Self Monitoring Report for 2nd Quarter for Inlet 17D3-022C

Parameter	Batch Number	Date of Discharge	Batch Results (pCi/L)	Amount Discharged (gal)	Total Activity per Discharge (Ci)	MSD Limits	Sum of the Ratios
Gross Alpha	BK-370	4/07/2003	71.8	18,310	5.0E-06	3,000	
Gross Beta			15.7		1.1E-06	N/A	
TH-228			1.9		1.3E-07	2,000	
TH-230			1.0		6.7E-08	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			71.3		4.9E-06	3,000	
RA-226			1.6		1.1E-07	600	
RA-228*			1.9		1.3E-07	2,000	0.0
Uranium (KPA)			52.0			3,000	
Total Suspended Solids			0.7 mg/l			30	
Gross Alpha	BK-371	4/18/2003	57.2	19,840	4.3E-06	3,000	
Gross Beta			39.5		3.0E-06	N/A	
TH-228			1.6		1.2E-07	2,000	
TH-230			2.6		2.0E-07	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			94.2		7.1E-06	3,000	
RA-226			2.7		2.1E-07	600	
RA-228*			1.6		1.2E-07	2,000	0.0
Uranium (KPA)			37.1			3,000	
Total Suspended Solids			0.7 mg/l			30	
Gross Alpha	BK-372	4/28/2003	84.5	31,740	1.0E-05	3,000	
Gross Beta			37.7		4.5E-06	N/A	
TH-228			2.4		2.9E-07	2,000	
TH-230			6.5		7.8E-07	1,000	
TH-232			0.2		2.6E-08	300	
Uranium (Nat)			47.6		5.7E-06	3,000	
RA-226			0.0		0.0E+00	600	
RA-228*			2.4		2.9E-07	2,000	0.0
Uranium (KPA)			38.5			3,000	
Total Suspended Solids			0.2 mg/l			30	
Gross Alpha	BK-373	5/28/2003	47.6	17,320	3.1E-06	3,000	
Gross Beta			9.5		6.2E-07	N/A	
TH-228			0.0		0.0E+00	2,000	
TH-230			1.9		1.3E-07	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			50.5		3.3E-06	3,000	
RA-226			0.9		5.9E-08	600	
RA-228*			0.0		0.0E+00	2,000	0.0
Uranium (KPA)			35.8			3,000	
Total Suspended Solids			0.7 mg/l			30	

SLDS FUSRAP

Self Monitoring Report for 2nd Quarter for Inlet 17D3-022C

Parameter	Batch Number	Date of Discharge	Batch Results (pCi/L)	Amount Discharged (gal)	Total Activity per Discharge (Ci)	MSD Limits	Sum of the Ratios
Gross Alpha	BK-374	6/16/2003	31.0	13,190	1.5E-06	3,000	
Gross Beta			9.9		5.0E-07	N/A	
TH-228			1.5		7.4E-08	2,000	
TH-230			4.2		2.1E-07	1,000	
TH-232			0.0		0.0E+00	300	
Uranium (Nat)			36.5		1.8E-06	3,000	
RA-226			1.1		5.6E-08	600	
RA-228*			1.5		7.4E-08	2,000	0.0
Uranium (KPA)			31.2			3,000	
Total Suspended Solids			0.8 mg/l			30	

NOTES:
1. Negative values are excluded from the calculation for total activity discharged.
2. Ra-228 assumed to be in equilibrium with Th-228.

Total Activity Discharged in 2nd Quarter (Ci)

TH-228	6.2E-07
TH-230	1.4E-06
TH-232	2.6E-08
Uranium (Nat)	2.3E-05
RA-226	4.3E-07
RA-228*	6.2E-07

Total Activity Discharged YTD through 06/30/03 (Ci)

TH-228	1.1E-06
TH-230	2.4E-06
TH-232	1.2E-07
Uranium (Nat)	3.4E-05
RA-226	7.1E-07
RA-228*	1.1E-06

Total Volume Discharged in 2nd Quarter (gal)

Gallons	100,400

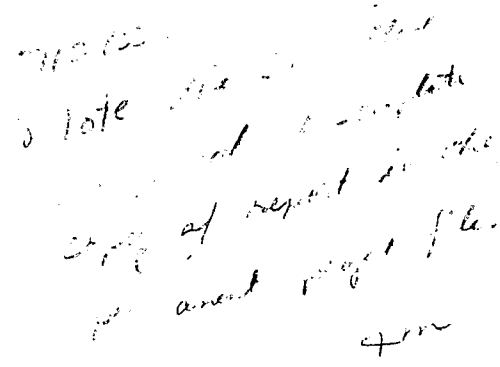
Total Volume Discharged YTD through 06/30/03

Gallons	237,560

Total Suspended Solids (mg/l)	Maximum Weekly	Monthly Average
April	0.70	0.53
May	0.70	0.70
June	0.80	0.80

ATTACHMENT C

COMPACT DISK OF FUSRAP, VALIDATED DATA



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