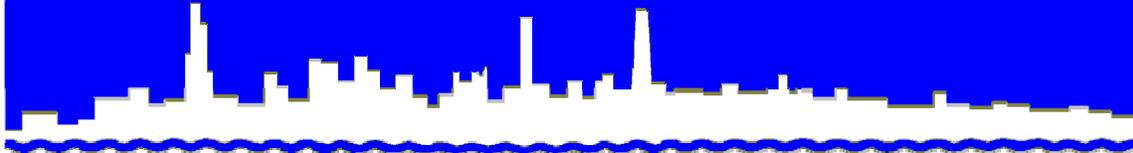


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 10-23

HARLEM AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FIRST QUARTER 2010

MAY 2010

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

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Louis Kollias, P.E., BCEE

Director of Monitoring and Research

louis.kollias@mwr.org

May 27, 2010

Mr. S. Alan Keller, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794 – 9276

Dear Mr. Keller:

Subject: Harlem Avenue Solids Management Area - Stickney Water Reclamation Plant Illinois Environmental Protection Agency Permit No. 2009-AO-2715, Monitoring Report for January, February, and March 2010

The attached three tables contain the monitoring data for the Harlem Avenue Solids Management Area (HASMA) for January, February, and March 2010, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2009-AO-2715.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1N-1 through L-3N at the Harlem Avenue Solids Management Area Sampled on March 17, 2010

Table 2, Analysis of Monthly Compositated Digested Biosolids Placed in the Harlem Avenue Solids Management Drying Area During January 2010

Table 3, Analysis of Monthly Compositated Digested Biosolids Placed in the Harlem Avenue Solids Management Drying Area During February 2010

Two new lysimeters, L-2N and L-3N, were installed at this site in September 2008 as replacements for L-2 and L-3, respectively. The old and new lysimeters have been monitored simultaneously. A request has been submitted to the IEPA to terminate monitoring of the old

Mr. S. Alan Keller

2

May 27, 2010

Subject: Harlem Avenue Solids Management Area - Stickney Water Reclamation
Plant Illinois Environmental Protection Agency Permit No. 2009-AO-
2715, Monitoring Report for January, February, and March 2010

Biosolids were placed in the solids drying area during January and February 2010. No biosolids were removed from the site during this quarter.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:PL:kq
Attachments
cc w/att: Mr. Sulski, IEPA
Records Unit, IEPA
O'Connor/Cox/Lindo

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N-1 THROUGH L-3N AT THE HARLEM AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 17, 2010

Parameter	Unit	Lysimeter No.				
		L-1N-1	L-2	L-2N	L-3	L-3N
pH ¹		7.7	7.4	7.5	7.6	7.8
EC	mS/m	264	357	385	242	222
Total Dissolved Solids	mg/L	1,686	3,344	4,032	1,694	1,602
Total Diss. Org. Carbon	“	39	5	6	8	16
Cl ⁻	“	91	219	57	94	100
SO ₄ ⁼	“	7	1,428	1,962	225	77
TKN	“	8	0.9	1	1	2
NH ₃ -N	“	6	<0.1	<0.1	0.4	0.9
NO ₂ +NO ₃ -N	“	0.18	4.1	28	0.17	0.25
Total P	“	<0.1	<0.1	<0.1	<0.1	0.1
Alkalinity as CaCO ₃	“	1,437	513	533	1,078	1,068
Al	“	0.064	0.104	0.122	0.058	0.070
Ca	“	296	612	699	299	281
Cd	“	<0.002	<0.002	<0.002	<0.002	<0.002
Cr	“	<0.003	<0.003	<0.003	<0.003	<0.003
Cu	“	<0.01	<0.01	<0.01	<0.01	<0.01
Fe	“	8.5	<0.02	<0.02	0.37	15
Hg	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20
K	mg/L	3	<1	1	1	1
Mg	“	178	156	203	135	116
Mn	“	0.335	0.245	3.11	0.960	0.861
Na	“	44	98	24	50	37
Ni	“	<0.002	<0.002	0.006	<0.002	0.026
Pb	“	<0.02	<0.02	<0.02	<0.02	<0.02
Zn	“	0.01	0.02	0.04	<0.01	0.03

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF MONTHLY COMPOSITED DIGESTED BIOSOLIDS
 PLACED IN THE HARLEM AVENUE SOLIDS MANAGEMENT DRYING AREA
 DURING JANUARY 2010

Parameter	Unit	Concentration ¹
pH		8.3
Total Solids	%	23.6
Total Volatile Solids ²	"	64.3
TKN	mg/kg	41,385
NH ₃ -N	"	7,022

¹Values are the means of five samples.

²Total volatile solids as a percentage of total solids.

TABLE 3: ANALYSIS OF MONTHLY COMPOSITED DIGESTED BIOSOLIDS
 PLACED IN THE HARLEM AVENUE SOLIDS MANAGEMENT DRYING AREA
 DURING FEBRUARY 2010

Parameter	Unit	Concentration ¹
pH		8.4
Total Solids	%	22.4
Total Volatile Solids ²	“	64.7
TKN	mg/kg	37,144
NH ₃ -N	“	6,872

¹Values are the means of five samples.

²Total volatile solids as a percentage of total solids