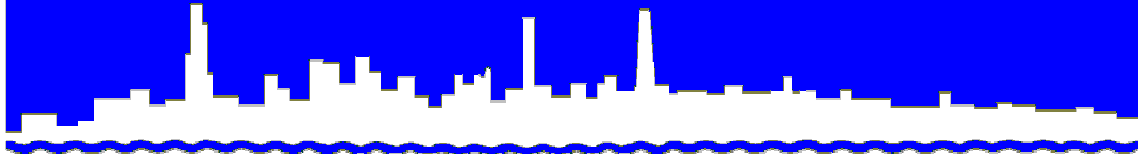


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 12-22

HARLEM AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FIRST QUARTER 2012

JUNE 2012

Protecting Our Water Environment

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Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

Thomas C. Granato, Ph.D.

Director of Monitoring and Research Department

thomas.granato@mwrdd.org

June 1, 2012

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-2715-1, Monitoring Report for January, February, and March 2012

The attached four tables contain the monitoring data for the Harlem Avenue Solids Management Area for January, February, and March 2012 as required by Illinois Environmental Protection Agency Operating Permit No. 2009-AO-2715-1.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1N1 Through L-3N at the Harlem Avenue Solids Management Area Sampled on March 7, 2012

Table 2, Analysis of Monthly Compositing Biosolids Placed in the Harlem Avenue Solids Management Drying Area During January 2012

Table 3, Analysis of Monthly Compositing Biosolids Placed in the Harlem Avenue Solids Management Drying Area During February 2012

Table 4, Analysis of Monthly Compositing Biosolids Placed in the Harlem Avenue Solids Management Drying Area During March 2012

Mr. S. Alan Keller

2

June 1, 2012

Subject: Harlem Avenue Solids Management Area – Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2009-AO-2715-1, Monitoring Report for January, February, and March 2012

Biosolids were placed in the solids drying area during January, February, and March 2012. No biosolids were removed from the site during the first quarter of 2012.

Very truly yours,

Thomas C. Granato, Ph.D.
Director
Monitoring and Research

TCG:PL:cm

Attachments

cc w/att: R. Sulski, IEPA
Records Unit, IEPA

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N1 THROUGH L-3N AT THE HARLEM AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 7, 2012

| Parameter | Unit | Lysimeter No. | | |
|--------------------------------------|------|-----------------|-----------------|---------|
| | | L-1N1 | L-2N | L-3N |
| pH ¹ | | 7.9 | 7.8 | 7.9 |
| EC | mS/m | 267 | 340 | 214 |
| Total Dissolved Solids | mg/L | NA ² | NA ² | 1,592 |
| Total Dissolved Organic Carbon | " | 35 | 6 | 16 |
| Cl ⁻ | " | 113 | 57 | 96 |
| SO ₄ ⁼ | " | 28 | 1,632 | 77 |
| TKN | " | 8 | 3 | 2 |
| NH ₃ -N | " | 8 | 3 | 1 |
| NO ₂ + NO ₃ -N | " | 0.27 | 8.7 | 0.49 |
| Total P | " | < 0.10 | < 0.10 | 0.55 |
| Alkalinity as CaCO ₃ | " | 1,537 | 577 | 1,178 |
| Al | " | < 1.0 | < 1.0 | < 1.0 |
| Ca | " | 324 | 651 | 303 |
| Cd | " | < 0.001 | < 0.001 | < 0.001 |
| Cr | " | < 0.005 | < 0.005 | < 0.005 |
| Cu | " | < 0.005 | < 0.005 | < 0.005 |
| Fe | " | 3 | < 0.1 | 22 |
| Hg | μg/L | < 0.20 | < 0.20 | < 0.20 |
| K | mg/L | 4 | 2 | < 1 |
| Mg | " | 190 | 192 | 131 |
| Mn | " | 0.309 | 2.02 | 0.981 |
| Na | " | 50 | 29 | 36 |
| Ni | " | < 0.005 | 0.008 | < 0.005 |
| Pb | " | < 0.02 | < 0.02 | < 0.02 |
| Zn | " | < 0.01 | 0.07 | 0.03 |

¹pH analyzed beyond recommended holding time of 15 minutes.

²No analysis; insufficient sample.

TABLE 2: ANALYSIS OF MONTHLY COMPOSITED BIOSOLIDS
 PLACED IN THE HARLEM AVENUE SOLIDS MANAGEMENT DRYING AREA
 DURING JANUARY 2012

| Parameter | Unit | Concentration ¹ |
|------------------------------------|------|----------------------------|
| pH | | 7.9 |
| Total Solids | % | 24.6 |
| Total Volatile Solids ² | ” | 54.2 |

¹Values are the means of nine samples.

²Total volatile solids as a percentage of total solids.

TABLE 3: ANALYSIS OF MONTHLY COMPOSITED BIOSOLIDS
 PLACED IN THE HARLEM AVENUE SOLIDS MANAGEMENT DRYING AREA
 DURING FEBRUARY 2012

| Parameter | Unit | Concentration ¹ |
|------------------------------------|------|----------------------------|
| pH | | 8.1 |
| Total Solids | % | 23.5 |
| Total Volatile Solids ² | ” | 63.0 |

¹Values are the means of four samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF MONTHLY COMPOSITED BIOSOLIDS
 PLACED IN THE HARLEM AVENUE SOLIDS MANAGEMENT DRYING AREA
 DURING MARCH 2012

| Parameter | Unit | Concentration ¹ |
|------------------------------------|------|----------------------------|
| pH | | 8.0 |
| Total Solids | % | 23.6 |
| Total Volatile Solids ² | ” | 64.0 |

¹Values are the means of five samples.

²Total volatile solids as a percentage of total solids.