July, 2008

Biosolids Division Monthly Report

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District of Columbia Water and Sewer Authority

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The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant while helping preserve agriculture and protect the Chesapeake Bay.



July 2008 Biosolids Division Report

In July, biosolids hauling averaged 1164 wet tons per day. The graph below shows the hauling by contractor for the month of July. Average % solids was 28.3%, and average lime dose was 14.1%. A second graph shows average tons recycled per day for the last 24 months.

In July, WASA began shipping biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In July a total of 430 tons went to compost production.



Average Daily Hauling by Contractor for July, 2008



Average Daily Biosolids Production

The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of June 2008. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits.



Environmental Benefits

In June of 2008 staff sent 29,440 wet tons of biosolids from the plant. In addition, 9,065 wet tons of material came out of storage in June. No tonnage went to landfills in June. The graph below shows the benefits as compared to landfilling all the biosolids in a nonenergy recovering landfill. Taking into account the fuel required to transport biosolids to the field, the net benefit is 2305 metric tons CO_2 equivalent avoided emissions. The graph shows the benefit (carbon credit) of the sequestration, the energy savings due to avoiding conventional fertilizer use, and the total of the two. This is equivalent to taking 5,228,256 car miles off the road in the month of June (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).



HIGHLIGHTS

During the month of July, DCWASA began transporting biosolids to the McGill Composting Facility in Waverly, VA (Sussex County). This state-of-the-art facility uses an aerated static pile technology in an enclosed building, with process air sent through a large (1 acre) biofilter for odor control. After the composting phase, the material is cured outside in windrows. DCWASA is sending 2 trucks per day to the site (approximately 50 tons per day). DCWASA sent 430 tons of material to the McGill Composting facility in July.



Staff participated in the Virginia DEQ Biosolids Expert Panel meeting in July, during which the members discussed possible recommendations to include in the report. Suggested recommendations range from:

- 1. adopting a protocol for responding to complaints,
- 2. drafting a well defined communications plan that includes DEQ, VDH, generators, and contractors,
- 3. evaluating alternative technologies for potential pilot testing,
- 4. regulatory changes to streamline mine reclamation work with biosolids,
- 5. funding for further health studies,
- 6. modifying DEQ's Exemplary Environmental Enterprise (E³) EMS program to include a standard for biosolids management.

These are a few of the potential recommendations; others are being drafted and are under consideration. The final report is due this fall.

One of the charges put forth to the DEQ Biosolids Expert Panel is to do a thorough examination of alternate technologies. As a result, WASA staff, in conjunction with the

Virginia Biosolids Council, is organizing a technology forum to be held in Richmond on Wednesday, September 17th. The Council is part of the Virginia Biosolids Renewable Energy Task Force, a group that includes the Chesapeake Bay Foundation and numerous Virginia state agencies. The session will provide wastewater treatment professionals and other public employees, representatives of non-profit environmental organizations and the general public with information on practical, dependable and environmentally sound technologies that can produce renewable energy and increase the options of municipalities for managing these organic resources. The forum will be at the site of and on the first day of the Commonwealth of Virginia Energy & Sustainability Conference (COVES).

Map of Blue Plains Biosolids Applications and Agricultural \$'s for June 2008

