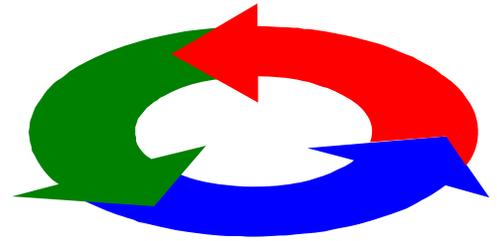


Amendments



Improving Awareness & Advocacy of the Michigan Biosolids Program

Volume 13, 1st Quarter

March 2009

Biosolids Program News

Action Alert!

To all fee paying communities. It is my duty to make everyone receiving this newsletter aware of the current situation of the Michigan Biosolids Program administered by the Michigan Department of Environmental Quality (MDEQ). In 2007, the MDEQ Executive Office announced that it will be taking 25% off the top of all fee based programs, including BIOSOLIDS. The Michigan Biosolids Team feels strongly, based on the Law (PA 29 of 1997), that the MDEQ Executive Office did not have the right to do this.

Based on Information from MDEQ's expenses for Fiscal Year 2008, ending September 30, 2008, there are no charges for MDEQ Executive Operations. However, cubicle rent of **\$70,600.00** and Michigan Department of Information Technology (MDIT) services of **\$21,309.59** were charged to the Biosolids Program. Upon further review of the expenses, it appears that the Biosolids Program was **OVERCHARGED** for rent and MDIT services. With five Full Time Employee's (FTE's) in the program, the charges should have been \$845.00¹ for DIT Services per FTE or **\$4,225.00** total, and \$180.00¹ for Rent per FTE or **\$900.00** total.

(¹The Rent and MDIT Services fees is based on other State Department FY 2008 expenses)

As many of you know, we have just completed a successful Biosolids Conference. About a month prior to the conference, the Michigan Biosolids Team was informed that one MDEQ person out of five was allowed to go. Upon inquiry, the Team was informed there was no more money in the MDEQ Biosolids Fund to send all five people. As a result, the Conference Planning Committee allowed the four remaining MDEQ staff members to attend for FREE. Also as a result, MDEQ's 2009 Fiscal Year Biosolids Budget was obtained by the Freedom of Information Act (FOIA). It is as follows:

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
FISCAL YEAR 2009 PROJECTED BUDGET
SEWAGE SLUDGE LAND APPLICATION FEE (BIOSOLIDS PROGRAM)
FEBRUARY 6, 2009**

DESCRIPTION	YEAR TO DATE EXPENSES	PROJECTED EXPENSES	TOTAL EXPENSES
Water Bureau Salary and Wages	\$180,732.00	\$376,035.00	\$556,767.00
Water Bureau Travel	\$8,092.00	\$16,183.00	\$24,275.00
Water Bureau other purchases	\$1,969.00	\$3,940.00	\$5,909.00
Depart. Of Information Technology		\$25,100.00	\$25,100.00
MDEQ Executive Operations and Departmental Support		\$98,400.00	\$98,400.00
Total MDEQ FY09 projected expenses	\$190,793.00	\$519,658.00	\$710,451.00

Fund Balance as of September 30, 2008	\$93,487.01
FY09 Projected revenue	\$719,566.20
Total Revenue	\$813,053.21
Total MDEQ projected expenditures through September 30, 2009	\$710,451.00
*Revenue transferred to Michigan Department of Civil Service	\$10,879.93
**Revenue Transferred to Michigan Department of Agriculture	\$85,540.00
Projected Revenue Balance for Fiscal Year 2009	\$6,182.28

*Statutory Requirement – 2% of prior year salary and wages

**Statutory requirement – 10% of DEQ’s annual appropriation

As the above tables indicate, especially in the shaded area, the MDEQ Executive Office is intending to **TAKE** \$98,400.00 from the Biosolids Fund, as well as **OVERCHARGE** the Biosolids Fund around \$20,000.00 for MDIT Services.

What can we do? Contact the MDEQ Executive Office at:

P.O. Box 30473
Lansing, MI 48909-7973
Phone: (517) 373-7917
Fax: (517) 241-7401

To voice your concerns about the **inappropriate use and overcharges** of your fee dollars, you may also contact your State Legislators to voice your concerns about **inappropriate uses and overcharges** of the Biosolids fund.

Thank You.

Michigan News

2009 Conference Recap

The 2009 Michigan Water Environment Association Biosolids Conference was held at the Kellogg Hotel and Conference Center on March 3-4. Well over 100 people attended the two day event. The morning of the first day featured tours of the Delhi Township Waste Water Treatment Plant Combined Heat and Power (CHP) from Digester gas project, Granger Electric’s Landfill Gas to Electricity, and the National Superconducting Cyclotron Laboratory. Attendees reported the tours as very good to excellent. After lunch in the exhibitor room, the sessions began with presentations about the overall scope of biomass and energy consumption in Michigan. The afternoon continued with breakout sessions featuring CHP, Energy consumption, Bio-Gas, and cost recovery. That evening, after a good meal and the 90 second vendor update, Jim Johnson, the Baron of Biosolids, gave a

nice presentation on the history of the crown, then passed his crown to Steve Mahoney as the new Baron.



Jim during his presentation

After the crowning, The Michigan Biosolids Team recognized Dr. Lee Jacobs, by surprise, for his achievements in education, research, and advocacy to the Beneficial Use of Biosolids with a Lifetime Achievement Award. Lee was surprised to see his wife Joy, a daughter, a son-in-law, and his three grandchildren!



Lee hugging his grandkids!

Entertainment was provided by Jay Hendren, a farmer comedian from Columbus, Ohio.

The following day's sessions were kicked off by Rep. Paul Opsommer with a Capitol Update, the Renewal Portfolio Standard, and the Economic Environment in Michigan. Breakout sessions continued throughout the day covering different projects, fuel cells, gasification, dewatering, bio-diesel, and digester technologies.

The Michigan Biosolids Team would like to thank our tour locations, all of our speakers, and especially our vendors, sponsors and the Department of Energy, Labor, and Economic Growth, who made this conference possible. The proceeds for this conference will be available at www.mi-wea.org in the Biosolids section.

Compost Giveaway Plan is a Flop in Traverse City, MI

TRAVERSE CITY -- Area gardens won't receive a promised compost product from Grand Traverse County's septage treatment plant. Septage plant proponents had claimed the facility could produce a clean, beneficial soil supplement from septic tank waste. When construction began in 2004, a public

relations firm doled out samples of a similar material as part of a promotional event. However, the bagged compost campaign flopped, providing local taxpayers a sneak peek of woes that would dog the \$8 million plant.

New studies show plant-produced material contains levels of zinc too high for retail or wholesale distribution, said Scott Blair of CH2MHill OMI, who oversees operation of the septage and city sewer plants. Testing indicates lofty zinc levels are indigenous to the area's septage, and the elemental metal can't be treated or filtered out. "It's disappointing," said Chris Buday, director of the county's Department of Public Works. "I thought (engineering firm Gourdie-Fraser Inc.) tested the septage when they designed the plant, but maybe they didn't test for metals."

In fact, the issue came up in 2004. Public documents show engineering firms that competed with Gourdie-Fraser for the septage plant's design and construction contract raised the metals question. Those competing firms also said the proposed plant was too big and its treatment system too expensive. The plant's size and scope were determined in large part by estimated septage flow numbers gathered by Gourdie-Fraser and Michael Houlihan, attorney for the county's Board of Public Works. Gourdie-Fraser ultimately was awarded the design and build contract, and Houlihan was hired as project manager.

The septage plant treats sludge with an Autothermal Thermophilic Aerobic Digestion system, or ATAD, to create a pathogen-free Class-A biosolids. In order to sell the material as compost, the biosolids must meet state guidelines for "exceptional quality." It fails that standard because of the high zinc content. The ATAD system also requires extra equipment that uses large amounts of electricity, making it expensive to build and run, Buday said. Most treatment plants, including Traverse City's sewage treatment plant, use an anaerobic treatment process to create methane gas. The plant burns the gas to generate electricity.

Sludge created at the city's sewage plant, known as a Class-B biosolids, is spread on farm fields. In 2008, the county spent \$26,000 to spread 640,000 gallons of Class-A biosolids from its septage plant onto local fields. "I'm not sure why you would spend the money to create a Class-A biosolids if you are going to land apply it like Class-B biosolids," said East Bay Township Supervisor Glen Lile, a member of a committee trying to solve the plant's financial troubles.

The septage plant faces \$2.4 million in losses by 2014, according to a recent study. To fix the latest zinc problem, the county can either try mixing its biosolids on-site with leaf mulch to dilute zinc levels, or convert the ATAD system to anaerobic digestion to create methane, Buday said. "If I was leaning towards anything, it would be methane production," Buday said. "It's going to be expensive to do, but in the long run more cost-effective."

Wyoming Seeing Higher Fees for Landfill of Biosolids

Tim Disselkoen

Each winter, Wyoming's Clean Water Plant ceases its land application of biosolids, the remaining solid matter left following the sewer treatment process.

This year, the cost of sending that solid waste is increasing, according to plant Superintendent Tom Kent. "They've increased significantly in the case of South Kent, and slightly at Autumn Hills," Kent said. The slight increase at Autumn Hills, located in Zeeland Township, is good news, even though it's the most expensive of the two.

Byron Township's South Kent landfill charges \$16 per ton, and Autumn Hills charges \$21.25 per ton. But South Kent, run by Kent County, can only accept three truck loads per week.

Wyoming typically generates three truck loads per day. So the first three per week will go to South Kent, and the others will then head to Autumn Hills. Together, the total spent is estimated to be \$70,000 this year. The city contracts with Synagro Midwest to haul the biosolids, and this fee is in addition to that trucking cost. "We are running a dewatering equipment called a belt press," Kent said. "That leaves a product we can send to the landfill."

Later this year, the city will join forces with the Grand Valley Regional Biosolids Authority. When that is up and running this summer, Wyoming biosolids will be shipped to Grand Rapids. There, they will use a centrifuge system to dry the solids then ship them to a landfill. While that will not begin until summer, as soon as weather allows, the city will switch back from the landfills to land application on farmers' fields. That transition happens quickly. "Everybody wants biosolids right away in the spring," Kent said.

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Managing Waste with More Waste Septic waste speeding landfill decomposition

Jim Lynch / The Detroit News

KIMBALL TOWNSHIP -- The ingredients are, well, disgusting. However, an experiment under way at a landfill in St. Clair County soon could provide a beautiful solution to the age-old problem of how we get rid of our trash.

At Smiths Creek Landfill, engineers have created a new kind of bioreactor that uses septic waste to speed the breakdown of trash in the landfill and the production of methane gas. Accelerated decomposition means less new landfill space could be needed in the future, and the increased methane production could provide a sustainable energy power source.

"Ultimately, we want to make this landfill a near perpetual operation," said Te-Yang Soong, an engineer with CTI and Associates Inc., which consults for St. Clair County. Smiths Creek is believed to be the first landfill in the world to use septic waste this way. If the experiment reaches the lofty goals set by St. Clair County, it could revolutionize how trash is handled and offer a better alternative to the bury and cover approach to dealing with garbage. The prospects have already drawn the attention of waste handlers, power providers and environmentalists.

"These guys could be leading the world in the way they deal with their septic waste and landfill," said Doug Martz, the St. Clair Riverkeeper and the chairman of the Macomb County Water Quality Board. "It's a fantastic concept."

The Idea Percolates

People have been burying waste for thousands of years, but in recent decades, attempts have been made to curb the spread of landfills through the creation of bioreactors -- landfills where moisture is added to the waste to help break down or biodegrade the material in a cell. In many instances, that moisture comes from leachate, the liquid that collects at the bottom of a landfill.

Historically, operators have been barred from introducing foreign liquids into a landfill to help reduce the amount of space needed and prevent groundwater contamination. But engineering consultants for St. Clair County hit upon the idea of injecting septic waste into the landfill four years ago, figuring the waste would accelerate the decomposition of trash, eventually allowing the cell to generate more methane over a period of time.

They soon ran up against the state's laws on those pesky foreign liquids. For state Rep. Phillip Pavlov, R-St. Clair Township, the project represented an opportunity to help his rural community with a waste-handling dilemma that has cropped up in recent years. "Half of our residents are on septic systems," Pavlov said. "In many cases, once the tanks are pumped out, the waste is taken out to farm fields and injected into the ground as fertilizer. But with all of the beach closings in recent years (from runoff) the DEQ has said that's not the direction they want to go in."

With urging from local officials, the Michigan Department of Environmental Quality issued a permit allowing St. Clair County to conduct its experiment over six years in one 7-acre cell on the Smiths Creek property.

Once the waste arrives, it is pumped into a pre-treatment plant, where liquids and solids are separated. The liquids are sent via a pipeline to the landfill where they are injected into the garbage. The liquid waste mixes with the garbage and breaks down the material, releasing landfill gases.

Roughly 50 percent are methane, a key ingredient in the generation of natural gas. Methane is captured inside the landfill and siphoned out to an on-site gas plant. It can be used to power nearby operations or it can be sold to energy companies.

In the last few years of developing the bioreactor, St. Clair County has invested between \$2 million and \$3 million. Smiths Creek began receiving septic waste for injection in late summer.

Test is closely watched

The experiment is being watched by many industries -- not the least of which is the waste handling industry. "It's a very viable technology and arguably may well be the landfill design that winds up being used on a widespread basis in the future," said Tom Horton, a spokesman for Waste Management Inc. "It addresses the need for treating a waste stream like septic waste in a productive manner. You also avoid having to construct a facility like a waste treatment plant. So it solves those issues and has the benefit of accelerating the production of landfill gas."

St. Clair County officials have been hesitant to trumpet their project, instead taking a wait-and-see-how-we-do approach.

"We want to show that we can do this safely, No. 1," said Matt Williams, the operator at Smiths Creek. "No.

2, we want to show the benefits of using septic waste that we were hoping to show. And No. 3, we want to see if it's a viable business model. This needs to operate efficiently and reliably so it isn't a hit-or-miss prospect for the waste haulers."

Like any new venture, the experiment has had unexpected problems including equipment has frozen in the low temperatures of the past few weeks. Smiths Creek accepts only residential waste from septic tanks and the occasional portable toilet. Families looking to save money are not having their systems pumped as often as they might have three years ago. This has resulted in a volume shortage that has hindered operation.

In addition, a legal dispute over any royalties generated down the line by the design of the bioreactor is making its way through the courts. So far, officials said none of the technical issues encountered appears to pose any long-term problems for the experiment.

"It will take six years to collect reasonable data to see how this works," said Morgan Subbarayn, president of CTI and Associates. "If in that time period we can prove to the industry that this is the way to do this, then this design could become the norm."

Elsewhere

WEF 2009 Residuals and Biosolids Specialty Conference

WEF Headquarters

Water Environment Federation's Residuals and Biosolids Committee in cooperation with the NW Biosolids Management Association, the Pacific NW Clean Water Association, and the Oregon Association of Clean Water Agencies is sponsoring a specialty conference on residuals and biosolids management from May 3-6 at the Oregon Convention Center. The conference hotels are the Doubletree Hotel Portland and the Red Lion Hotel Portland Convention Center. Early bird registration discount ends March 18. This conference is the 23rd annual WEF specialty conference on this subject and will focus on processing and management of biosolids. The theme of the conference is Sustainable Biosolids Management.

As urban areas grow in size and population, municipal, industrial, and agricultural facilities are confronted with issues relating to residuals and biosolids management. Around the world, industrial as well as

agricultural communities are moving towards more stringent regulatory requirements for residuals processing, handling and disposal or beneficial use options. The conference will strive to meet the needs for education, awareness, knowledge and acceptance technology and best management practices through workshops, technical sessions and an exhibition. This broad program offers in-depth learning opportunities over four days and includes seventeen sessions, three workshops and two tours.

Covered topics include:

- Research and Development Activities
- Land Application, Land Reclamation, and Managing Nutrients
- Marketing of Biosolids and Residuals Products
- Facilities Operation and Management
- National Biosolids Partnership Activities and Environmental Management Systems
- Advances in Stabilization Technologies
- Conditioning and Dewatering Technologies
- Bioenergy Technologies
- Odor Control
- Regulatory and Legal Issues
- Pacific Northwest Regional Issues
- Sustainability Planning

Proceedings will be available after the conference is over. To view all WEF conference proceedings, click here. To register, visit: registration@wef.org or call: 1-703-684-2441. More information is available at: <http://www.wef.org/ConferencesTraining/ConferencesEvents/ResidualsBiosolids/>. To view the list of biosolids meetings, visit: http://www.biosolids.org/news_calendar.asp?id=2092

Kingston Water Treatment Plant Recognized for Beneficial Use of Biosolids

New York--(BUSINESS WIRE)--The city of Kingston received the Beneficial Use of Biosolids Award for 2008 at the 81st Annual Meeting of the New York Water Environment Association (NYWEA), which is being held at the Marriott Marquis Hotel.

The NYWEA is the principal organization for professionals working in the water quality industry in New York State. The Beneficial Use of Biosolids Award recognizes significant contributions in the development and implementation of cost-effective, environmentally safe, and publicly acceptable biosolids beneficial use practices which recycle nutrients, improve soil

conditions, or otherwise conserve valuable natural resources.

Kingston Mayor James Sottile, James Reffelt of Aslan Environmental Services, Inc. (AES), and George Cacchio, of CAMO Pollution Control who runs the Kingston, N.Y. water treatment plant which converts dried sewage sludge into fertilizer pellets, accepted the award.

"This is the first plant of its size in the world," Cacchio said. "It has been operating 24/7 since April 2007, with only five days of down time. To date, Kingston taxpayers have saved approximately \$100,000 and eliminated more than 4,500 tons of sludge in landfills as a result of implementing this system."

This is the second time this plant has been singled out for excellence in its field. Last year, Aslan Environmental Services Inc., headquartered in Fishkill, N.Y., received the New York State 2008 Environmental Excellence Award for its successful adaptation of the sewage sludge drying and pelletizing technology used in the Kingston plant. Previously, the technology was available only for very large scale applications. AES is the only company in North America licensed to handle this design.

"This is a mature product based on proven technology that requires no up front capital expenditures, is effortless on the part of the municipality to implement, saves money and is completely green," according to Mayor James Sottile of Kingston. It turns municipal sludge into pellets, and provides a clean, cost-effective and environmentally sound alternative to dumping sludge into landfills. The pellets can be sold as fertilizer thereby providing an additional source of revenue, or burned as fuel, providing additional savings.

"This system is very attractive to communities," said James Reffelt, AES vice president of business development. "We take a problem disposal material and turn it into a useful product, in an economical and environmentally sound manner - no risk to the community."

Touted to be environmentally friendly, the system is said to reduce landfill loading, remove air emissions, and decrease related transportation costs. In some cases, as in Kingston, the waste methane gas available at the plant is used to run the drying process, and any excess is redirected to a generator to produce electricity, thereby creating additional savings for the community.

Founded in 2003, Aslan Environmental Services, Inc., is a technology company providing innovative independent solutions to specific commercial, industrial and municipal problems.

The New York Water Environment Association, Inc. (NYWEA) was founded in 1929, by professionals in the field of water quality as a non-profit, educational organization.



Calendar of Events

MBT Meetings

Thursday, April 9, 2009 10:00 a.m.

Location: SCCMUA CWF, Dewitt Michigan

Thursday, June 18, 2009 10:00 a.m.

Location: Grandville Fire Station, Grandville Michigan

Thursday, July 23, 2009 10:00 a.m.

Location: MSU Ag Expo Grounds, Biosolids Tent

Thursday, September 17, 2009 10:00 a.m.

Location: Johnson Wildlife Center, Cadillac Michigan

Thursday, November 19, 2009 10:00 a.m.

Location: Frankenmuth Michigan Holiday Party

Other Events

Wednesday, April 22, 2009: Earth Day

May 3-6, 2009: Residuals and Biosolids Specialty Conference, Portland Oregon

July 21-23, 2009: MSU Ag Expo

Michigan State University

October 10-14, 2009:

WEFTEC, Orlando Florida