

Subject: NEBRAMail

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NEBRAMail...essential biosolids & residuals news

It has been a long while since the last NEBRAMail. Things have happened – including a move of NEBRA's office to a newly renovated building in Tamworth, NH. Time for reporting has been limited; apologies for the delay in forwarding this essential biosolids & residuals news. This NEBRAMail is chock full of key developments of the past several months. Enjoy!

NEBRA congratulates *BioCycle* as it celebrates 50 years (<http://www.biocycle50.com>)! And we thank *BioCycle* for their ongoing inspiration and support!

CONTENTS

- * North East Conference To Be Held November 4th & 5th in New Haven**
- * New England Organics EMS is Certified by National Biosolids Partnership**
- * Moncton Compost Certified by BNQ**
- * The Stamford Waste-to-Energy Project**
- * New Halifax Wastewater Treatment Plant Shuts Down Due to Technical Problems**
- * Wilmington, DE Faces Storm Over Poorly Managed Wastewater Solids**
- * The US EPA released a draft rule for mandatory greenhouse gas (GHG) emissions reporting...**

*** In Brief... / En Bref...**

CALENDAR... <http://www.nebiosolids.org/index.php?page=events-calendar>

North East Conference To Be Held November 4th & 5th in New Haven

The 2009 annual North East Residuals and Biosolids Conference has taken on Energy! This year's event is co-hosted with the NEWEA Energy Committee, who have joined NEBRA and the NEWEA Residuals Management Committee to develop sessions on the most current topics: energy efficiency at treatment facilities, biosolids for energy, biosolids as products, and greenhouse gas emissions and accounting. Join us November 4th & 5th in New Haven. Mark your calendars now. The conference call for papers can be downloaded at <http://www.nebiosolids.org>. Watch here for more information.

New England Organics EMS is Certified by National Biosolids Partnership

Earlier this year, NEBRA member New England Organics (NEO) achieved two firsts in biosolids management. When the National Biosolids Partnership certified the company's Hawk Ridge Composting Facility's Environmental Management System (EMS), it became the first private operation to achieve this honor and the first in New England. As noted in the National Biosolids Partnership announcement: "As the 24th

wastewater agency certified and admitted into the NBP EMS program and first in Maine, New England Organics' achievement recognizes that the agency has been independently verified as having an effective biosolids environmental management system" (<http://www.biosolids.org/news.asp?id=2138>).

NEO began its work on EMS in early 2007, as part of a New England class of six, including Erving MA, Mechanic Falls ME, Lewiston-Auburn ME, Soil Preparation Inc. (ME), and Resource Management Inc. (NH). With top management support, Mary Waring and Ann Thayer led the internal EMS effort at NEO, working closely with Hawk Ridge Compost Facility manager George Belmont, compost sales staff, and others throughout the organization. A National Biosolids Partnership certified independent audit team from KEMA-Registered Quality, Inc. conducted the on-site audit on January 5 – 7, 2009.

The EMS for biosolids is a program entered into voluntarily. It focuses on critical control points within the biosolids production, treatment, and end use "value chain." Critical control points are parts of the process where the quality of the end product and/or compliance and/or public acceptance will be adversely affected if things are not done right. An EMS program helps an organization prioritize its actions, reaching above and beyond mere compliance. It helps avoid "dumb mistakes." As noted in an NEO news release, "it is a continual cycle of planning, implementing, reviewing and improving environmental and health & safety processes which an organization undertakes to meet its business and environmental goals."

The rest of the New England EMS class are in different stages of developing their EMS programs, and most are close to seeking certification through an independent audit. NEBRA has assisted this class of EMS participants and encourages other members to call on NEBRA for assistance in entering the program and building their own EMS. Contact the NEBRA office for details.

A recent article in the Bangor Daily News provides further information about the Hawk Ridge facility: <http://www.bangordailynews.com/detail/103488.html>

Moncton Compost Certified by BNQ

(with information from the Québec Environment Ministry (MDDEP))

The Greater Moncton Sewerage Commission – a member of NEBRA – is receiving certification by the Bureau de normalization du Québec (BNQ) for the quality of its compost. This Type A compost is called “Gardener’s Gold.” It becomes the first compost certified by BNQ in New Brunswick and conforms to the voluntary Canadian compost standards of 2005. Congratulations to the Moncton team! Hopefully other Canadian municipalities will choose to seek independent certification through the BNQ.

GMSC compost is produced from primary solids composted with fine wood waste in aerated windrows covered by Gore fabric. A unique aspect of the operation is the recovery of heat

from beneath the compost piles.

The Stamford Waste-to-Energy Project

Driven in part by the growing interest in renewable sources of energy, the Stamford Water Pollution Control Authority (SWPCA) is several years into the design and phase-in of what would be the nation's first full-scale biosolids gasification project.

The first phase of the project, according to a conference presentation by SWPCA's Jeannette Brown and other project engineers, was the building of a solids drying facility that is now producing biosolids pellets. The next phase, funded by a \$1.5 million grant from the U. S. Department of Energy and an equal sum from the city, has been the construction and operation of a pilot gasification system, which has produced a synthetic gas useable in an internal combustion engine. Now the team is in the facility design stage and is working on obtaining funding needed for the full-scale operation, some \$60 million if a 15 MW plant is constructed (a smaller, 10 MW plant is also being discussed). The energy produced will be used to run the Stamford wastewater facility, with the excess – as much as 90% of what is generated, according to the project proponents – sold into the electric grid.

On February 4th, Jeannette Brown testified before the Water Resources and Environment Subcommittee of the Committee on Transportation and Infrastructure of the U. S. House of Representatives. Her message, on behalf of the Water

Environment Federation, was to help the committee “identify ways to mitigate this [energy] consumption by exploring energy efficient technologies and operations (<http://www.wef.org/NewsCenter/02042009.htm>).” She described the Stamford project and others as examples of wastewater treatment professionals working to advance energy efficiency and production.

After more than two years of reporting and discussion of the Stamford waste-to-energy project, there is now considerable excitement as construction approaches; it could begin later this year. However, there are some questions about the total net energy benefit and the costs involved (possibly \$40 million of local bond funding), according to a late March *Stamford Advocate* article. For more details about the project, see <http://www.stamfordbiogas.com>.

New Halifax Wastewater Treatment Plant Shuts Down Due to Technical Problems

Equipment failure in January caused extensive flooding and damage to the Harbour Solutions Project’s Upper Water Street wastewater treatment facility in Halifax. The plant is one of three new facilities being built around Halifax harbor. They aim to eliminate raw sewage discharges for which Nova Scotia’s largest city has been infamous for years. The Upper Water Street plant began operations amidst much fanfare in 2008. There are ongoing investigations into the cause of the malfunction and negotiations on who will pay the estimated \$55 million for the cleanup and repairs. It is estimated that the plant

will not be functional again for another year. For more details, see <http://thechronicleherald.ca/Front/1116645.html>.

As the new Halifax wastewater treatment facilities come online, the solids generated are being transported to the Aerotech Park outside the city, for processing via an advanced alkaline stabilization process operated by N-Viro Canada. The biosolids are trucked to farms for use as a liming agent and soil amendment. With the increase in biosolids production, there has been additional public concern showing up in media reports. For example, a March 23rd *Chronicle Herald* article described odor issues.

Earlier this decade, the environment ministry placed a moratorium on biosolids land application in Nova Scotia, due to public concerns. Following public meetings and consultations, new stricter guidelines were adopted, and biosolids are in use again.

Ontario Extends Deadline for Compliance with Nutrient Management Requirements

Ontario's 2002 *Nutrient Management Act* (NMA) sets standards for managing nutrients on farms. In 2007, the Ontario Ministries of Environment and Agriculture, Food and Rural Affairs created an improved regulatory framework for non-agricultural source materials (NASM), which include biosolids (<http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTAxNDMy&statusId=MTUxNjMz&language=en>).

The 2007 action aimed to eliminate overlapping approval requirements under the *NMA* and the *Environmental Protection Act*.

This year's action extends the deadline for compliance with the improved requirements from the end of last year to the end of this year (December 31, 2009). This gives more time to smaller farms and wastewater treatment facilities that have not yet developed required nutrient management strategies. This recent announcement can be read at <http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTAzMzI4&statusId=MTU2ODEx&language=en>.

In the meantime, there are ongoing local debates about biosolids land application in the province.

Wilmington, DE Faces Storm Over Poorly Managed Wastewater Solids

A heap of a million tons of wastewater solids, coal ash, and other materials in Wilmington, Delaware, is creating a growing dispute and political crisis (<http://www.delawareonline.com/article/20090406/OPINION11/904060310/1004/OPINION>). According to news reports, VFI Technology, owned by a Utah-based company, is responsible for the pile. The company's stated intention was to make a soil product. The solids mixed at this site are local, as well as from Pennsylvania and New Jersey. The price for dealing with the pile are expected to double annual solids management costs to \$4 million or more.

The US EPA released a draft rule for mandatory greenhouse gas (GHG) emissions reporting on March 10, 2009. With the release of the draft rule, EPA has taken a first step towards mandatory reporting of GHG emissions. As proposed, the EPA draft rule would place new mandatory reporting requirements on major source facilities operating in the US to report their GHG emissions. The new requirements would apply to suppliers of fossil fuel and industrial chemicals, manufacturers of motor vehicles and engines, as well as large direct emitters of GHGs with direct emissions equal to or greater than a threshold of 25,000 metric tons of CO₂e per year. Other sources covered under the rule include: cement production, iron and steel production, electricity generation, landfills, and wastewater treatment among others. According to EPA, approximately 13,000 facilities would be covered under the proposal. The first annual emissions report would be due to EPA in 2011 for the calendar year 2010. General information on the EPA draft rule <http://rs6.net/tn.jsp?et=1102473020308&e=001rFY-oJcwJVGWW6ZM6rht18dZQkJuAQDs5yu66-TR82OiCFjLTcNhUdVO3ch5ELYKSppFtFe1n5sSknlyc2YlCa wFuc_MCZSL0OcvxE7l_4rmVAD1hH4QZM732wfuhe11xFDyZJC_YiSmnHF1gGtihTn060T5NQnLGjlRRZFKUqs=>

In Brief / En Bref...

NEBRA's 2008 project on estimating greenhouse gas emissions from two biosolids management options at Merrimack, NH was the topic of

articles in the recent editions of *BioCycle* and *Water Environment & Technology*. The full report on the project is available at NEBRA's website: www.nebiosolids.org.

WEF and WERF have updated their biosolids information on their websites. See WERF's at <http://www.wef.org/ScienceTechnologyResources/AccessWaterKnowledge/Biosolids/index.htm> and WEF's at <http://www.werf.org/AM/Template.cfm?Section=Biosolids> <<http://www.werf.org/AM/Template.cfm?Section=Biosolids>>

Quebec has a new regulation that will restrict total P in detergents sold in Quebec after July 1, 2010 to $\leq 0.5\%$. As Marc Hébert of the Environment Ministry notes, "one can expect the concentration of P in biosolids to go down about 15% in the next few years."

Cornell Waste Management Institute "revisited" the "Case for Caution" late last year, publishing on its website "Case for Caution Revisited: Health and Environmental Impacts of Application of Sewage Sludges to Agricultural Land" (cwmi.css.cornell.edu/case.pdf). It is an informal compilation of about 40 selected paper abstracts and article extracts from the past 15 years that raise questions about biosolids use on soils and promote use of biosolids for energy. Some of the papers cited, such as those by Dr. David Lewis and the University of Toledo (Khuder et al.), have been refuted by peer scientists. Near the end of the compilation, an abstract from a paper by Roger Tim Haug et al. provides a good sense of where things stand: "When judged by these criteria, one can conclude that many combustion installations are beneficial. One can also conclude that land application is beneficial in most, but perhaps not all, installations."

The New York Times website posted a balanced biosolids article ("Biosolids and Human Health") on April 16th that has generated a stream of comments: <http://greeninc.blogs.nytimes.com/2009/04/16/biosolids-and-human-health/>.

Pennsylvania continues to wrestle with public concerns about Class B

biosolids use on soils. A new organization, United Sludge Free Alliance, held a public meeting about ““Sludge Fertilizer: The Dangers to Your Livelihood, Land, Farm & Future” in mid-March. The Mid-Atlantic Biosolids Association (MABA), local wastewater treatment facilities, and biosolids management companies have been responding to the concerns, providing information.

Radioactivity found in small, but above-standard levels in Ottawa biosolids in late January has been deemed no risk, according to the Canadian Nuclear Safety Commission, according to news reports. Indications were that the issue was caused by iodine-131, a common medical isotope that may have been improperly discharged from a medical facility into the sewer.

A Rutland, VT digester cover failure is challenging the city budget; see http://www.projo.com/news/content/EAST_PROVIDENCE_SEWER_PLANT_04-20-09_E3E3AUD_v14.34f20e3.html

Earthtenders, a New Hampshire composting company, was honored earlier this year with an award from the U. S. Composting Council. Congratulations to NEBRA friend Eva Christensen and her team! See <http://www.earthtenders.com>.

Compost facilities mapped... The Cornell Waste Management Institute website has a nifty new page on its website: a map-based directory of composting facilities in New York (and showing a few in neighboring states): <http://compost.css.cornell.edu/maps.html#124>.

The large new McGill Environmental Systems composting facility in Virginia is featured in the April 2009 *Biosolids News* from the Virginia Biosolids Council (<http://www.virginiabiosolids.com/>).

The Minergy facility that is supposed to process wastewater solids for the North Shore Sanitary District in Illinois (north of Chicago) has been struggling for a couple of years to overcome technical difficulties. The Minergy system was presented at the North East Biosolids and Residuals

Conference in 2006 in Wells, Maine. It involves vitrifying wastewater solids into a glass aggregate that can be used in construction. See http://www.suburbanchicagonews.com/newssun/news/1499982,5_1_WA28_NSSD_S1.art
[icle](#)

This spring, Wisconsin passed a law (Assembly Bill 3) prohibiting phosphorus in most fertilizer applications.

“Poisoned Waters,” a Frontline documentary aired on U. S. Public Television stations this week. It’s an important water concern; biosolids are not really mentioned. You can watch the full program and learn more at <http://www.pbs.org/frontline/poisonedwaters> . Information on micro-constituents (“PPCPS,” endocrine disrupting compounds) is available at <http://www.wef.org/ScienceTechnologyResources/AccessWaterKnowledge/Microconstituents/>.

Providence, RI is looking at a major wastewater plant upgrade: see http://www.projo.com/news/content/EAST_PROVIDENCE_SEWER_PLANT_04-20-09_E3E3AUD_v14.34f20e3.html.

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