

Subject: NEBRAMail

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From: Ned Beecher <ned.beecher@nebiosolids.org>

To: NEBRA <info@nebiosolids.org>

NEBRAMail...*distilled biosolids & residuals news for New England & eastern Canada*

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**BE THERE: 2009 North East Residuals & Biosolids & ENERGY Conference
November 4 & 5 - New Haven, CT**

NEBRA 2008 Financial Statement Available

As a not-for-profit organization registered in New Hampshire and recognized as tax exempt under Section 501(c)(3) of the Internal Revenue Code, NEBRA annually files – to the IRS and the State of New Hampshire – a financial report for the prior year. In early August, 2009, NEBRA filed its Form 990-EZ for fiscal year 2008, which ended December 31, 2008. This and prior year's filings are available for members and the public to inspect at any time during normal business hours at 26 Gregg's Way, Tamworth, NH, or through written request for a mailed copy (\$10 fee applies for non-members). Also available for member and public inspection are NEBRA's application for, and final letter of, exemption under Section 501(c)(3). For more information, contact the NEBRA office (info@nebiosolids.org, 603-323-7654).

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NEBRA Offers Workshop on Greenhouse Gas Accounting

On October 1st, from 9:30 – 3:30, NEBRA will present a workshop on “Greenhouse Gas Accounting for Wastewater Treatment and Biosolids Management” at the Lawrence Heritage Park in Lawrence, MA.

Global climate change and greenhouse gas emissions (GHG) are in the spotlight, with Congress considering significant legislation. U. S. EPA is developing requirements for large operations or facilities to report GHG emissions. Already, many organizations are estimating their “carbon footprints” so as to know, in advance, the possible impacts of future voluntary and regulatory GHG emission control programs.

This workshop will provide wastewater treatment facilities, biosolids management programs, engineers, and regulatory agency staff the background and basics of GHG emissions accounting, using both standard protocols and more detailed, site-specific analysis. Topics will include a brief history of GHG accounting, current leading protocols and registries (e.g. The Climate Registry and its *Local Government Operations Protocol*), U. S. EPA’s approach to estimating GHG emissions from wastewater treatment and biosolids management, and key accounting concepts such as scopes, tiers, and verification.

After introductory presentations by instructors experienced with GHG accounting for municipalities, WWTPs, and biosolids programs, participants will participate in working through a simplified GHG emissions analysis for a northeast wastewater treatment facility and a typical biosolids management program. Through this, they will learn the levels of uncertainty involved in necessary assumptions and come to appreciate the importance of data specific to the local facility or program.

Participants should come away from the workshop with enough understanding and experience to be 1) conversant on the topic and 2) able to begin designing a GHG emissions inventory for a treatment facility or biosolids program.

Registration for the workshop will be on a first-come, first-served basis, with a limit of 70. Fees are \$50 for NEBRA members and \$100 for non-members (an individual NEBRA membership costs \$50). Fee includes lunch, snacks, and workshop materials. To register, download the form at <http://www.nebiosolids.org>.

Information Update Available: Biosolids and the White House Garden

Lead in the soil of the White House garden is a biosolids-related internet story gone “viral.” On August 3rd, almost 7 weeks after the story was first broken by *Mother Jones*, Eddie Gehman Kohan of the White House blog *Obamafoodorama* wrote “In the last two weeks, the lead myth has returned with a vengeance, in stories with inflammatory headlines such as

‘Michelle Obama's Toxic Veggie Nightmare.’ This, despite the fact that lead as a toxic issue in the garden has been debunked by major soil scientists, in interviews with your intrepid blogger that appeared here and on *Huffington Post*.”

But the issue is once again making the rounds. Ms. Kohan quips: “The President has birthers; the first lady has leadites.”

The lead story was triggered by a standard soil test in the spring of 2009....

For more, see the “*Information Update*” by the Mid-Atlantic Biosolids Association and NEBRA, available at www.nebiosolids.org.

USDA Proposes Biobased Product Consumer Label Rule

(including information from a USDA news release)

On July 31st, Agriculture Secretary Tom Vilsack announced that the U.S. Department of Agriculture (USDA) is making it easier for consumers to identify biobased products through the release of its proposed BioPreferredSM labeling rule. USDA's BioPreferred labeling program, published in the *Federal Register*, intends to create a product label that would appear on qualifying BioPreferred biobased products. When final, this regulation will allow biobased product manufacturers to participate in a voluntary labeling program to identify biobased products on retail store shelves.

The BioPreferred program was created by the Farm Security

and Rural Investment Act of 2002 (2002 Farm Bill) as a preferred procurement program to increase the purchase and use of biobased products within the Federal government. The Food, Conservation and Energy Act of 2008 (2008 Farm Bill) expanded the program's scope to promote the sale of biobased products in other sectors.

"Increasing the purchase and use of biobased products is a priority of the Obama Administration because it helps increase our nation's energy security and independence by using American agricultural products, while spurring economic development in rural areas," said Vilsack. "Consumers want to make more informed product choice decisions and BioPreferred will help them. This label will help consumers, businesses and Federal government purchasers easily identify biobased products."

Manufacturers will be able to utilize the BioPreferred label, when finalized, to help customers identify their products as biobased. Currently, USDA has identified more than 15,000 commercially available biobased products across approximately 200 categories, from cleaning products to construction materials. Biobased products are available to consumers today and the new label will help make these sustainable products more accessible and serve as a valuable marketing tool for manufacturers and vendors of biobased products.

Biobased products are products that are composed wholly or significantly of biological ingredients - renewable plant, animal, marine or forestry materials. According to the Federal Register, "the term 'biobased product' does not include motor vehicle

fuels, heating oil, electricity produced from biomass, or any mature market products. Products from a mature market will be determined on a case-by-case basis.... Mature products are those biobased products that had significant market penetration in 1972, such as wood furniture, paper plates, and cotton shirts and towels.” A BioPreferred designated item is one that meets or exceeds USDA-established minimum biobased content requirements.

The current USDA proposed BioPreferred product labeling program builds on an existing BioPreferred procurement program. As noted by USDA, “under the procurement program, BioPreferred designates items, or generic groupings of biobased products, that are required for purchase by Federal agencies and their contractors. As a part of this process, the minimum biobased content is specified and information on the technical, health, and environmental characteristics of these products are made available on the BioPreferred Web site.”

This program is similar to the U. S. EPA’s procurement program for products made with recovered materials. In 1997, the U. S. EPA program began to specifically include products – such as composts and fertilizers (including those made from biosolids) – made from recovered organic materials. Both the EPA and the USDA procurement programs require federal government agencies and contractors working for such agencies to use, on large jobs, listed preferred products. (More about the EPA procurement program was reported in a prior *NEBRAMail*: <http://www.nebiosolids.org/index.php?mact=News,cntnt01,detail,0&cntnt01articleid=112&cntnt01origid=24&cntnt01returnid=24>.)

Products made from biosolids and other organic residuals are biobased, and most can likely meet the USDA definitions and standards. Specifically, one of the biobased product categories identified by USDA includes “products formulated or processed to provide nutrients for plant growth and/or beneficial bacteria to convert nutrients into plant usable forms. Biobased fertilizers, which are likely to consist mostly of biobased components, may include both biobased and chemical components.” To meet the USDA biobased standard, such materials must contain a minimum of 71% biological ingredients (e.g. organic matter). Already, at least one biosolids product – a compost – is included in USDA’s listing of biobased products under the existing procurement program.

More information about BioPreferred's proposed labeling rule can be found at www.biopreferred.gov or contact BioPreferred at biopreferred@usda.gov. BioPreferred encourages interested parties to submit comments on the proposed rule until Sept. 29, 2009. To submit comments go to <http://edocket.access.gpo.gov/2009/E9-17610.htm>.

EPA May Define Sewage Sludge/Biosolids as a Solid Waste

The U. S. EPA Office of Resource Conservation and Recovery (ORCR) – once known as the Office of Solid Waste – is in the process of defining sewage sludge and biosolids as a solid waste – at least in some instances. If the proposed change in definition is adopted – which now seems likely – the Office of Air and Radiation will likely begin regulating sewage sludge incinerators (SSIs) under the Clean Air Act (CAA) Section 129,

rather than Section 112. Section 129 applies to all materials defined as solid wastes.

While this action clearly has significant impacts for municipalities that operate SSIs, it has the potential (though likely unintended) to affect other biosolids use or disposal options, particularly because other federal and many state regulations depend heavily on the definition of what constitutes solid waste.

A key part of the debate on defining sewage sludge/biosolids as a solid waste depends on whether or not the material is being “discarded.” According to the January 2nd *Federal Register*, “EPA now needs to articulate which nonhazardous secondary materials constitute solid wastes under RCRA Subtitle D so that EPA can establish appropriate standards under CAA sections 112 and 129 for units that combust secondary materials for the purposes of energy recovery or when used as an ingredient” (*Federal Register*, 2009). Currently, there is growing action nationwide to maximize energy recovery from SSIs.

This EPA action is moving forward steadily, as the Agency has a court-ordered deadline of September 15th - but the Agency may ask for an extension of that deadline.

NEBRA has created a draft *Information Update* on this topic that is available upon request from the NEBRA office (email info@nebisolids.org).

EPA Proposes Waste Energy Recovery Registry

(Thanks to Jason Turgeon, EPA Region 1, for the “heads-up” on this topic.)

EPA is proposing to establish the criteria for including sources or sites in a Registry of Recoverable Waste Energy Sources (Registry), as required under Title IV, Subtitle D of the Energy Independence and Security Act of 2007. The Agency is also proposing the Survey processes by which EPA will collect data and populate the Registry. The rule would apply to major industrial and large commercial sources as defined by EPA in this rulemaking. This proposed rule would not require the installation of new monitoring equipment; rather it would require only that sources above certain threshold levels that wish to be included in the Registry enter specific already-monitored data points into the voluntary Survey, which is a software tool that will calculate the quantity and quality of potentially recoverable waste energy.

The proposed action is detailed at <http://www.regulations.gov/search/Regs/home.html#documentDetail?R=09000064809f8fac>

The proposed action would not establish any new requirements for wastewater treatment facilities and biosolids and residuals management programs. However, if the Registry is created, such facilities and programs could choose to voluntarily share information regarding anaerobic digester gas or incinerator waste heat that is not currently used for heat or power.

The idea of the Registry is “provide a list of the economically feasible existing waste energy recovery opportunities in the US...; provide state and national totals of the existing waste energy recovery opportunities, as well as the potential criteria

pollutant and greenhouse gas emissions reductions that could be achieved with the capture and use of the waste energy...; and serve as a basis for potential waste energy recovery projects to qualify for financial and regulatory incentives....”

Upon entering data into the Registry, a facility will be fed back information on how much potential energy it has available and what the payback period would be for installing a CHP system. If a facility with unused energy potential meets certain criteria, it would be eligible for assistance in developing a CHP project.

In addition, the Registry will be a central database where companies specializing in CHP projects can identify potential facilities with which to partner to bring new projects online.

EPA is accepting comments on the proposed action until September 21, 2009. More information is available at <http://www.epa.gov/cleanenergy/registry/index.html>.

Despite Debate, Land Application of Biosolids Thrives in Nova Scotia

There continues to be coverage in the Nova Scotia press of Halifax’s wastewater treatment woes and biosolids land application. At the same time, the demand for biosolids in the province remains high.

Some news coverage has focused on the failure and closure of the new main Halifax wastewater treatment facility on January 14th of this year. The *Canadian Press* reported on local frustration about the plant’s failure, the costs involved in

analyzing and fixing the problem, and pressure from Environment Canada and the public, who are worried about the renewed discharges of raw sewage into Halifax harbor. Environment Canada is requiring of Halifax Regional Municipality regular reporting regarding “the progress and the compliance with the federal Fisheries Act.” Halifax leadership is asking why Environment Canada is taking an enforcement stand now, when prior to last year, raw sewage flowed into the harbor unabated. In the meantime, investigation of the closure continues, and litigation is considered likely to resolve who will pay for the plant’s cleanup and repair. According to the article, managers of the sewage treatment program are hoping the new wastewater treatment facility can reopen by spring 2010.

According to the *Chronical Herald*, Environment Canada’s involvement and pressure on the Halifax program was triggered by complaints from the public, including Halifax residents. It quotes an EC enforcement division manager as saying “The city of Halifax had taken significant steps to comply with the Fisheries Act in installing sewage treatment plants, and we want to look forward from here... They have raised the bar, so to speak, and we now expect them to remain in compliance.” One of the three planned treatment facilities – at Dartmouth – is operational, and the third, at Herring Cove, is still under construction.

Other news stories and commentaries have covered the solids from the Halifax facilities, as well as regional septage, which are treated at an N-Viro facility outside Halifax. The resulting biosolids are land applied, mostly on farms. This continues to cause debate. The *Chronical Herald* printed a citizen’s column in late June under the inflammatory headline “Biosolids: from

the toilet to your kitchen table.” The author argued that the risk assessments conducted by U. S. EPA, on which biosolids regulations are based, are outdated, and that there are “newly recognized chemicals of potential concern.” He talks of the Precautionary Principle, suggesting that a moratorium on land application should be applied.

Rae Wallin, president of N-Viro Systems Canada, which operates the biosolids processing facility for Halifax, refuted the arguments in a subsequent *Chronicle Herald* column. “Governments in Canada, the United States and Europe have been using biosolids on agricultural land for over 30 years.” He describes the regulatory structure that governs the use of Halifax biosolids on farm lands, including testing and requirements for meeting Fertilizer Act standards. He mentions ongoing further independent testing being done by the Canadian Council of Ministers of the Environment and research being done by other federal agencies.

Murray McBride of the Cornell Waste Management Institute quickly responded to Mr. Wallin’s column with one of his own, printed in the July 15th *Chronicle Herald*. NEBRA submitted a response (available at <http://www.nebiosolids.org/index.php?page=news>).

To see what effect the debate is having on use of the Halifax biosolids, I contacted Rob Sampson, an N-Viro manager at Halifax. He said that, over the past few years, N-Viro has held numerous informational meetings in farming communities. Interest and demand for the material has been growing. “Now, because we have much less material due to the Halifax plant shut-down, we may not have enough product to meet the

demand this fall and winter.”

Much of the Halifax biosolids is applied to ground growing typical agricultural crops, such as corn. He notes, however, that one of the fastest-growing markets is for use on land growing sugar beets for ethanol production. They are looking at some land reclamation uses as well.

As to the quality of the biosolids, Sampson pointed to Halifax biosolids test data posted on the N-Viro Canada website. It shows levels of regulated (and some unregulated) elements that fall well below the province’s regulatory limits, which are, in almost all cases, significantly lower than U. S. EPA limits. Sampson also noted that N-Viro Canada biosolids are currently under scrutiny in five research studies.

WERF Focuses on Biosolids and Energy

The Water Environment Research Foundation (WERF) continues to put focus on research related to biosolids. A recent WERF publication is a “Biosolids Quality Control... Guidance for Samplers,” which provides clear instructions for taking a sample in accordance with EPA quality procedures. (Note that New England Interstate Water Pollution Control Commission also has a “Guide to Biosolids Sampling Plans” that covers the same topic; see <http://www.neiwpcc.org/biosamplingguide.asp>). A current WERF project, which is building on two prior WERF projects, is developing “Practical Procedures for Biosolids Odor and Pathogen Control.” The wide variety and scope of WERF biosolids research projects is clear by going to <http://www.werf.org/net/search.aspx> and

choosing the “biosolids land application” search item.

Now, WERF is helping lead efforts in the U. S. to improve understanding of greenhouse gas emissions from wastewater treatment facilities and biosolids management, as well as response to climate change (see http://www.werf.org/AM/Template.cfm?Section=Climate_Change). Current WERF projects are investigating methane emissions from septic systems and nitrous oxide emissions from biological nutrient removal (BNR) and other wastewater treatment processes. To draw attention to a related topic, WERF Executive Director Glen Reinhardt recently released a statement on “Energy Opportunities In Wastewater And Biosolids” (<http://www.wateronline.com/download.mvc/Energy-Opportunities-In-Wastewater-And-Biosol-0001?user=20&source=nl:25058>).

North East Biosolids and Residuals Association

P. O. Box 422

Tamworth, NH 03886

Phone 603-323-7654

Fax 603-323-7666

www.nebiosolids.org