



WEF Residuals & Biosolids Committee
Bioenergy Technology Subcommittee
2011 Residuals & Biosolids Specialty Conference
Sacramento Convention Center

Sacramento, CA
Tuesday, May 24, 2011
7:00 – 8:30 am
Room 304-305

Dave Parry, *Chair*
Robert Bates, *Vice-Chair*

AGENDA

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| 1. Introduction & Welcome
Meeting Minutes – 2010 RBC WEFTEC Conference – New Orleans, CA
Mission Statement, Goals & Vision | Dave Parry |
| 2. Conferences & Workshops
WEF 2011 Biosolids Specialty Conference – Sacramento, CA
WEF Energy & Water Conference – Chicago, IL
WEFTEC 2011 - Los Angeles, CA | Robert Bates |
| 3. WERF Upcoming Projects Related to Bioenergy | Dan Woltering |
| 4. Manuals, State of the Industry
EPA Solids Manual, others | All |
| 5. Technology Task Force Reports (Activities, Plans)
Biofuels (New Task Force)
High Performance Digestion
Thermal Drying (Thanks to Frank Sapienza)
High Temperature (Pyrolysis, Gasification)
Thermal Oxidation
Value Added Products | Nate Turner
John Willis
Scott Carr
Stan Chilson
Lee Lundberg
Robert Reimers |
| 6. Hot Topics, Important Issues, Highlights, Trends
WEF Review of Biosolids Classification MACT Stds for SSIs
Important Issues, Highlights, Trends, Recommendations | Jim Welp
All |
| 7. Closing Comments | Dave Parry |
| 8. Next Meeting: RBC 2011 WEFTEC Conference Los Angeles, CA – October 15-19 | |
| 9. Adjourn | |



Bioenergy Technology Subcommittee

Prepared By: Robert Bates, Vice-Chair

Date: June 3, 2011

The Bioenergy Technology Subcommittee of the Residuals & Biosolids Committee (RBC) met on May 23, 2011 as part of the Residuals & Biosolids Conference in Sacramento, CA.

Summary of Activities:

Meeting called to order at 7:00 by Chair Dave Parry with a final attendance of 40+ people.

Minutes from the last subcommittee meeting were approved.

General Comments:

- The Bioenergy Technology Subcommittee is the largest subcommittee in the RBC
- One-half of workshops and one-third of technical sessions at this RBC are Bioenergy related.
- YP involvement is and will continue to be critical and needs to be expanded in the future.
- The RBC is investigating a Bioenergy workshop for the 2012 WEFTEC.
- More municipality participation is needed in this subcommittee – currently only two – Louisville MSD and HRSD.
- The Energy and Water Conference in Chicago (Jul 31 – Aug 3) will have follow-up Barriers to Biogas meeting/sessions.
- MOPs for Solids Handling/Treatment should be finalized by the end of June. These can be stand alone documents if needed – compiled from edited materials.
- Past Chairs Jim Welp and Peter Brady were recognized for the contributions.

**** Abstracts for the 2012 RBC Conference in Raleigh, NC are due June 24, 2011 ****

Task Force Notes:

1. **Biofuels.** Technical documents and TPU have been forwarded to WEF for publication. Information on biosolids, biogas, State of Industry, Young Professionals and Young Professionals
2. **High Performance Digestion** Review is underway of new TPU and Wastewater Treatment Plant documents. Increase in the Focus on modeling of digesters to improve the overall process.
3. **Thermal Drying**
 - a. Survey of facilities regarding safety of thermal drying only had two responses. A white paper will be developed from responses.
 - b. The impact of a phosphorus ban in Washington State discussed. A biosolids exemption is still in question. Florida currently has agronomic rates in place which may affect land application.
 - c. Trends to be addressed. Lower drying temps, other sources of heat for drying, waste heat as source.
4. **High Temperature Pyrolysis**
 - a. What is the emerging technology in pyrolysis. Question remains whether there is enough data to prove less NOx emission than incineration. Syngas produced as product still has cleanup/monetary issues. Projects and investigation needed for hard to digest products, biosolids as fuel, and digestion/syngas synergy.
5. **Thermal Oxidation**
 - a. SSI rules impact industry. WEF/NACWA have crafted a response to EPA.
 - b. Primary issue is state of current incinerator upgrade making them fall under new emission regulations. Choice is new incinerator vs. cost to upgrade existing.
 - c. There still exists too much of a “gray” area in differentiation between multi hearth incinerators and fluidized bed incinerators.
6. **Value Added Products**
 - a. Ash delisted as a solid waste.
 - b. Need to look beyond 503 when considering ash. Lower metals can make biosolids more attractive.
 - c. Biosolids bioassays helping get support from some environmentalists but still need to publish results from tests, get the information to the public. Testing should target the impetus of the public’s concerns to get them receptive to biosolids use.
7. **Carbon Task Force**

Has evolved into its own Subcommittee and its report is supplied separately.

HOT TOPICS.

The HOT TOPIC is the new SSI rule. Biosolids are a solid waste when incinerated. There is an effort to get this overturned but utilities should be cognizant of the rules, determine baselines for emissions and be ready to meet new, more stringent regulations. NACWA has filed a petition for reconsideration of the ruling. The consensus is that the new SSI rule is technology based and not based on risk. The information needs to be presented that can move SSIs back to CAA112 vs. CAA129.

Biosolids have an energy value. There is an education gap that needs to be filled. The information needs to get to the public and to state regulator level. The current threshold level is 60% energy recovery as the difference between solid waste and energy source (fuel).

Public Perception: There was discussion referencing changing the names of facilities from Wastewater Treatment Plants to something with more positive connotation. Not to diminish what the wastewater process is but to highlight the benefits and “potential” in a plant. Of particular concern is ownership of effluent. Who owns it?

Bob Dominak is retiring from NEORSD and deserves recognition for the time and effort he has contributed to our profession. A related topic is the origination of some type of Pioneering Award to those individuals who have committed the time and effort like Bob Dominak.

The Young Professionals were surveyed for their viewpoints on Bioenergy. The viewpoints expressed were:

- There needs to be a survey of WWTP to get their view on bioenergy. What. How.
- Policy needs to be improved. Improve incentives for projects, products and get the related information to the local and state regulators.
- “Wastewater” the name is negative and instills a mental block. It is not wastewater but actually “water with value” or “resource water”.

Sam Hadeed recommended we refrain from using the term “Industry”. He recommends replacing “Industry” with “Profession”: as in the Wastewater Profession – Water Resource Profession

Potential Task Forces:

Pretreatment (Digestion) Task Force – Focus on cost of technology vs. result.

Energy Efficient Nutrient Removal Task Force – Focus on cost for methanol vs. other technology.

Next meeting: WEFTEC, Los Angeles, CA Oct 15-19.

The meeting ended at 8:25 am.



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ATTENDEES**

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