



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 15 2012

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Chris Hornback
Senior Director, Regulatory Affairs
National Association of Clean Water Agencies
1816 Jefferson Place, NW
Washington, DC 20036

Dear Mr. Hornback:

We appreciated the opportunity to discuss with you concerns related to EPA's final rule entitled, *Identification of Non-Hazardous Secondary Materials (NHSM) That Are Solid Waste*. 76 FR 15456 (March 21, 2011). We understand that responses in the *Response to Comments Document for the Identification of Non-Hazardous Secondary Materials that are Solid Waste* (February 2011) final rule have raised questions as to whether the Environmental Protection Agency (EPA) has changed its interpretation of what constitutes a "contained gaseous material." Specifically, questions were raised as to how that interpretation relates to biogas generated by the anaerobic digestion of wastewater treatment sludge that is burned for energy recovery.

First, we would note that this letter only addresses wastewater treatment sludges that are processed in anaerobic digesters to produce biogas and does not apply to other situations where these sludges are used as a fuel. For example, see 76 FR 15513-15515 for a discussion of the incineration of sewage sludge.

As you are aware, representatives from other industry sectors also have raised concerns about the contained gas language in the Response to Comments Document. In a letter to Mr. Tim Hunt dated May 13, 2011, a copy of which is enclosed, we clarified that EPA was not changing any of its previous positions regarding what constitutes a "contained gaseous material" for purposes of defining the term "solid waste" under the Resource Conservation and Recovery Act (RCRA) and that the Agency's previous statements and interpretations remain in place. The letter specifically stated that "burning of gaseous materials, such as in fume incinerators (as well as other combustion units, including air pollution control devices that may combust gaseous material) does not involve treatment or other management of a solid waste (as defined in RCRA section 1004(27))." Further, in an August 5, 2011, letter to Ms. Sue Briggum (also enclosed), we clarified that the Agency is not changing any of its previous statements and interpretations concerning landfill gas. Finally, in the recent *Commercial and Industrial Solid Waste Incineration Units (CISWI) Reconsideration and Proposed Amendments*, the Agency reiterated that it did not intend to create ambiguity by removing the definition of "contained

gaseous material" from the 2000 CISWI rule. Accordingly, the proposed CISWI reconsideration rule includes the same definition of "contained gaseous material" that was removed from the final CISWI rule. See 76 FR 80463.

As you described in a September 19, 2011 email to George Faison of my staff, anaerobic digestion is a widely used solids processing technology at wastewater treatment plants. Digestion includes production of biogas through the decomposition of the biodegradable portion of the volatile solids by microorganisms in the absence of oxygen, producing biogas. You also indicated that the use of biogas as a fuel requires cleaning and purification to remove contaminants. EPA considers the anaerobic digestion of wastewater treatment sludge to produce biogas as meeting the definition of processing pursuant to 40 CFR 241.2.

The biogas is primarily composed of methane (60-65 percent) and CO₂ (35-40 percent) and has been used to heat the digesters and, at many treatment facilities, to generate power. The biogas can be collected and burned as fuel to produce electricity using onsite power generation equipment, such as internal combustion engines, turbines, micro turbines, or fuel cells. Additionally, heat can be recovered from the power generation units in the form of hot water or steam (combustion turbines only) to heat the digesters, facility buildings, or other processes that require heat.

Thus, as stated in previous letters, the Agency is not changing any previous positions of what constitutes a "contained gaseous material" for purposes of defining the term solid waste as it relates to biogas generated by the anaerobic digestion of wastewater treatment sludge and used for energy recovery. Therefore, we would consider biogas from anaerobic digestion to be a commodity fuel processed from waste materials, and not a traditional fuel. Also, as indicated in the August 5 letter, biogases that qualify for the Gas 1 (natural gas and refinery gas) subcategory would be subject to the work practice standards under the Boiler MACT. See 76 FR 15668-9 (section 63.7521(f)-(i) and Table 6) for specific regulatory requirements.

Your email also provided information on California's renewable energy program. Although we do not consider biogas from anaerobic digestion to be a traditional fuel under 40 CFR Part 241, you requested confirmation that this determination is narrow and only applicable to the Commercial and Industrial Solid Waste Incinerator (CISWI) standards, and would not impact the status of biogas as a renewable fuel for purposes of state or future federal renewable energy programs. The purpose of the NHSM rule is to identify those materials which could be considered solid wastes under RCRA when used as a fuel or ingredient in combustion units.

Thank you for your continued interest in protecting the environment. If you have further questions, please contact George Faison at faison.george@epa.gov or (703) 305-7652.

Sincerely,

A handwritten signature in cursive script that reads "Suzanne Rudzinski".

Suzanne Rudzinski, Director
Office of Resource Conservation and Recovery

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MAY 13 2011

Mr. Tim Hunt
Senior Director, Air Quality
American Forest and Paper Association
1111 Nineteenth Street, N.W.
Washington, D.C. 20036

Dear Mr. Hunt:

I would like to thank you and other representatives of forest products industries for meeting with my staff on April 26, 2011, to discuss your concerns with the Identification of Non-Hazardous Secondary Materials That Are Solid Waste (NHSM) final rule. We are evaluating a number of the concerns you raised, but wanted to get back to you quickly on the "contained gas" issue that you raised in that meeting and in an issue paper that you forwarded to us on April 13, 2011. We understand that our response to the fourth comment in Part 3b.1.3. of the document *Responses to Comments Document for the Identification of Non-Hazardous Materials that are Solid Waste* (February 2011) has created concerns among the regulated community that the Environmental Protection Agency (EPA) has changed a long-standing interpretation of what constitutes a "contained gaseous material" for purposes of defining the term "solid waste" under the Resource Conservation and Recovery Act (RCRA). We have not changed our prior interpretation but would like to clarify the response.

EPA was responding to a comment requesting that we include in the NHSM final rule a definition of "contained gaseous material." The Agency does not believe that including such a definition in the rule is necessary. However, our response seems to have caused confusion about whether the Agency was changing its prior interpretations regarding the burning of gaseous materials, for example in fume incinerators, and whether or not such burning is considered to be treatment of a solid waste by burning.

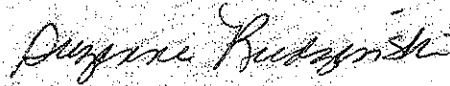
The response does not change any previous EPA positions. We clarify here that the Agency's previous statements and interpretations remain effective. Thus, burning of gaseous material, such as in fume incinerators¹ (as well as other combustion units, including air pollution control devices that may combust gaseous material) does not involve treatment or other management of a solid waste (as defined in RCRA section 1004 (27)).

¹ See, for example, 47 FR 27530, June 24, 1982, where it states "Fume incinerators which are used to destroy gaseous emissions from various industrial processes, for example, are not subject to regulation under RCRA."

We also note that since the Agency did not solicit comment on this issue in the proposal, and did not analyze or address it in the preamble to the final rule or in the Regulatory Impact Analysis (RIA) for the rule, it is clear that the Agency did not intend to issue an interpretation that would change previous EPA statements regarding how "contained gaseous material" is interpreted for purposes of RCRA and for purposes of section 129 of the Clean Air Act.

Thank you for your continued interest in protecting the environment. If you have further questions you may contact George Faison, of my staff, at faison.george@epa.gov or 703-305-7652.

Sincerely,



Suzanne Rudzinski, Director
Office of Resource Conservation and Recovery



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 5, 2011

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Ms. Sue Briggum
Vice President, Federal Public Affairs
Waste Management
701 Pennsylvania Ave., NW
Washington, DC 20004

Dear Ms. Briggum:

I appreciated the opportunity to meet with you and others from Waste Management and the Delaware Solid Waste Authority on July 8, 2011 to discuss your concerns related to EPA's final rule entitled, *Identification of Non-Hazardous Secondary Materials (NHSM) That Are Solid Waste*, 76 FR 15456 (March 21, 2011). In addition, thank you for your July 12, 2011 letter and attachments, which provided additional information regarding Waste Management's positions and concerns related to the NHSM rule's characterization of landfill gas. Specifically, we understand that several of the responses in the *Response to Comments Document for the Identification of Non-Hazardous Secondary Materials that are Solid Waste* (February 2011) (notably at 3b-13-1, 3b-13-2, and 3b-13-4) have raised questions as to whether the Environmental Protection Agency (EPA) has changed its interpretation of what constitutes a "contained gaseous material," as well as its position regarding the regulation of landfill gas.

As you are aware, representatives from other industry sectors have raised concerns about the contained gas language in the Response to Comments Document. In a letter to Mr. Tim Hunt dated May 13, 2011, a copy of which is enclosed, we clarified that EPA was not changing any of its previous positions regarding what constitutes a "contained gaseous material" for purposes of defining the term "solid waste" under the Resource Conservation and Recovery Act (RCRA) and that the Agency's previous statements and interpretations remain in place.

Similarly, I would like to clarify that the Agency is not changing any of its previous statements and interpretations concerning landfill gas. As we noted in the May 13, 2011 letter to Tim Hunt regarding contained gas, EPA did not solicit comment on landfill gas in the NHSM proposal, and did not analyze or address it in the preamble to the final rule because the Agency did not intend to issue a different interpretation than it had in the past.

Finally, I would like to clarify one of the Agency's responses in the Response to Comment Document that you identified as raising questions.¹ Specifically, Comment [3b-13-2] discussed comments requesting the Agency clarify that landfill gas and sewage digester gas are "traditional fuels" that are not solid wastes when combusted in any type of boiler. EPA responded by stating that the Agency disagrees that landfill gas or sewage digester gas are traditional fuels. They may be considered commodity fuels that have been processed from waste materials, but they would have to meet all the requirements necessary to be considered a processed commodity fuel.

EPA continues to believe that landfill gas is not a traditional fuel when it is generated from the landfill. However, as indicated in the comment response, and as you explained further during our meeting, landfill gas is processed (filtered, dewatered, and compressed) before it can be used on-site or off-site. For certain uses, landfill gas must be even further processed before it is used as a fuel.

EPA also notes that landfill gas may be subject to work practice standards for gases that are comparable to natural gas and refinery gas (Gas 1), as opposed to numeric emission limitations for Gas 2 fired boilers and process heaters, under the Clean Air Act emissions standards issued for major source boilers and process heaters (the "Boiler MACT").

Information that Waste Management provided to EPA regarding landfill gas compared to natural gas and refinery gas,² suggests that landfill gas may meet the requirements for other Gas 1 fuels, and if so, would be required to meet work practice standards under the Boiler MACT. See 76 FR 15668-9 (section 63.7521(f)-(i) and Table 6) for specific regulatory requirements.

Thank you for your continued interest in protecting the environment. If you have further questions, please contact James Berlow, Director of ORCR's Program Implementation and Information Division, at berlow.jim@epa.gov or (703) 308-8404.

Sincerely,



Suzanne Rudzinski, Director
Office of Resource Conservation and Recovery

¹ The other two responses that you identified in the Response to Comments document do not relate directly to landfill gas and thus, we do not address them in this letter.

² See memorandum from Tom Kraemer of CH2MHill to Amy Banister, Waste Management, July 7, 2011.