

Landfill Gas & Solid Waste Questions and Answers (version 1.1; May 2, 2012)

Why are landfill gas projects being asked to address issues related to “solid waste?”

In 2011 the federal EPA promulgated revised regulations governing the combustion of commercial and industrial solid waste. <http://www.epa.gov/ttn/atw/129/ciwi/ciwiipg.html> The rule is commonly referred to as the CISWI rule. In an action parallel to the CISWI rule, the EPA promulgated a final rule that identifies the standards and procedures for identifying whether non-hazardous secondary materials (NHSM) are or are not solid waste when used as fuels or ingredients in combustion units. <http://www.epa.gov/wastes/nonhaz/define/> The determination of whether landfill gas is, or is not, a solid waste is important to determining the applicable emission control requirements. If landfill gas is a solid waste then federal CISWI regulations apply and permits will be issued to sources who can demonstrate compliance with the CISWI requirements. If the landfill gas is not a solid waste, permits will be issued for sources who can demonstrate compliance with all applicable non-CISWI regulations.

Is landfill gas a “solid waste”?

In a written response to an inquiry about how landfill gas is characterized under the NHSM rule, the Director of the EPA Office of Resource Conservation and Recovery provided that landfill gas is not a traditional fuel, but could qualify as non-solid waste fuel under the NHSM rule provisions. Letter from Suzanne Rudzinski, Director, [EPA] Office of Resource Conservation and Recovery to Ms. Sue Briggum, VP , Federal Public Affairs, Waste Management (August 5, 2011). More specifically, the Ms. Rudzinski stated that landfill gas “may” be a fuel “processed from waste material, but they would have to meet all the requirements necessary to be considered a processed commodity fuel.” Rudzinski letter at 2. <http://www.epa.gov/osw/nonhaz/define/pdfs/landfill-gas.pdf> According to this letter, landfill gas may only be considered a non-solid waste if the requirements, commonly referred to as the legitimacy criteria, are satisfied.

Under the NHSM rule the EPA did not provide a categorical exemption providing that all landfill gas is a non-solid waste. Therefore, where a source seeks authorization to burn landfill gas, the permitting authority (e.g., NC DAQ) must evaluate the material against the legitimacy criteria on a case-by-case basis to make a determination of whether the material is a solid waste or non-solid waste.

What are the “legitimacy criteria?”

In brief, in order for a NHSM to be classified as a non-solid waste, the material must meet the following three criteria:

- 1) The NHSM (e.g., landfill gas) must be managed as a valuable commodity;
- 2) The NHSM must have a meaningful heating value and be used as a fuel in a combustion unit that recovers energy; and,
- 3) The NHSM must contain contaminants at levels comparable to, or lower than, the concentrations in traditional fuels which the combustion unit is designed to burn. This requires a direct comparison of the contaminant levels in the NHSM and the traditional fuel.

The complete legitimacy criteria are contained and detailed in EPA's NSHM rule.
<http://www.gpo.gov/fdsys/pkg/FR-2011-03-21/pdf/2011-4492.pdf>

Is landfill gas a “contained gaseous material”?

Traditionally, and in prior revisions of the NSHM rule, the EPA defined solid waste as “..., and contained gaseous material.” Therefore, “uncontained gaseous materials” were categorically excluded from the definition of solid waste.

During the NSHM rulemaking process, various parties submitted comments to the US EPA asserting that landfill gas has been and should continue to be classified as an “uncontained gaseous material,” and therefore excluded from the definition of solid waste. When the EPA issued the final NSHM rule in 2011, the preamble to the final rule responded to these comments as follows: “[W]e are unable to find any Agency reasoning supporting previous EPA interpretations that only gases in containers may be considered ‘contained.’ Based on the facts of this case, EPA cannot see how gaseous secondary material that is generated in any particular system and is somehow sent to a gas-fired boiler, even through a pipeline, can be considered an ‘uncontained gas.’” EPA NSHM, Response to Comments, at 212.

Why is North Carolina requiring sources address these federal regulations?

The North Carolina Division of Air Quality (NCDAQ) implements two basic sets of air quality regulations for stationary sources. The first set of regulations is developed by the NCDAQ for protection of the ambient based National Ambient Air Quality Standards (NAAQS). The second set of regulations are regulations developed by the federal EPA and these include many technology-based standards including but not limited to the CISWI and NSHM rules discussed above. With respect to the latter, North Carolina is delegated by the federal EPA to implement these standards, and must implement and enforce these regulations according to a delegation agreement. Other state permitting agencies may or may not have delegation agreements.

Is EPA going to provide further clarification on the issue of landfill gas?

On December 23, 2011 the federal EPA proposed changes to the NSHM regulation. See <http://www.epa.gov/osw/hazard/dsw/rulemaking.htm#2011> . According to the EPA, the landfill issues discussed above are being considered in this proposed rulemaking.