



North Carolina Department of Environment and Natural Resources

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MEMORANDUM

FROM: Donald R. van der Vaart, Ph.D., P.E., J.D.  
Chief, Permits Section

TO: Permits Staff

DATE: February 15, 2013

RE: CISWI & NHSM Determinations

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On February 7, 2013 the EPA published revisions to the Commercial and Industrial Solid Waste Incineration (CISWI) regulations and the Solid Wastes Used as Fuels or Ingredients in Combustion Units rule (also known as the NHSM rule).<sup>1</sup> The CISWI rule (for new units) will become effective on August 7, 2013. It includes a definition of “contained gaseous material” and indicates that the definition of solid waste given in 40 CFR §258.2 is to be used to determine if a material is a solid waste.

The definition of solid waste at 40 CFR §258.2 states,<sup>2</sup>

*Solid waste* means any garbage, or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, ... [emphasis added]

Under the revised CISWI rule, “*contained gaseous material* now means gases that are in a container when that container is combusted.”<sup>3</sup> The EPA had said in prior rulemaking that

...we 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 NHSM, Response to Comments, at 212.”<sup>4</sup>

Having now found such reasoning the EPA has amended the CISWI rule to say that gas conveyed in a pipe (e.g. landfill gas) to a combustion unit is not a contained gaseous material and therefore is not a “solid waste.” The EPA then explains that it is not necessary for the landfill gas to satisfy the legitimacy criteria to avoid applicability of CISWI for its combustion. Note that the NHSM rule still states that “non-hazardous secondary

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<sup>1</sup> 78 CFR 9112 (2013).

<sup>2</sup> This definition is referenced in 40 CFR §214.2

<sup>3</sup> The NHSM rule still contains a definition of “contained” at 40 CFR §241.2. This definition appears to be primarily limited to the legitimacy criteria requirement that a nonhazardous secondary material used as fuel must be managed as valuable commodity (e.g. stored in a manner that prevents release as one would store a valuable material).

<sup>4</sup> <http://www.epa.gov/ttn/atw/129/ssi/2011/epa-hq-rcra-2008-0329-1837.pdf>

materials that are combusted are solid wastes,” unless they can be exempted under either 40 CFR §241.3(b) or through a petition to the US EPA under 40 CFR §241.3(d). The EPA’s interpretation of contained gases makes it clear that to be subject to the CISWI rule a unit must burn a “solid waste” as that term is defined at 40 CFR §258.2 and does not qualify for one of the NHSM exemptions at 40 CFR §241.3. If the material is not a solid waste as defined in 40 CFR §258.2 its combustion is not subject to CISWI. Alternatively, the combustion of a solid waste can be exempt from CISWI if the conditions under 40 CFR Part 241 can be met.

Whether a material is a solid waste depends on whether §258.2 or the NHSM rule is being relied upon. Recent memoranda from the NC DOJ are instructive in both contexts. Specifically, the NC DOJ memorandum of September 28, 2009, described ten factors that define whether a material is a solid waste under §258.2. Alternatively, the NC DOJ memorandum of July 20, 2011 defines whether a material is a solid waste in the context of the NHSM rule, and lists five factors that should be considered when making the determination under three subparts of that rule.<sup>5</sup>

The following examples demonstrate the application of the revised regulations.

**Example 1:** When landfill gas (LFG) is burned in a flare it cannot satisfy the NHSM exemption because there is no heat recovery. As a result, LFG would be a “solid waste” under 40 CFR §241.3. However, that is not the end of the inquiry. The definition at 40 CFR §258.2 includes the newly defined term “contained gaseous material.” Because landfill gas is not a contained gaseous material it does not meet the definition of “solid waste” under 40 CFR §241.2 regardless of the inquiry pursuant to 40 CFR §241.3. The landfill gas flare would not be subject to CISWI.

**Example 2:** Consider a poultry waste that can meet the legitimacy criteria because it contains contaminant concentrations that are comparable to a traditional fuel. As a result, the NHSM would not be a “solid waste” under 40 CFR §241.3.

**Example 3:** Consider a pulp and paper sludge that has been dewatered. Under §241.4(a) no legitimacy criteria need to be evaluated. However, if the material has been discarded it is a solid waste. Evaluations under §241.4(a) should use the NC DOJ memorandum of July 20, 2011 to determine if the sludge has been discarded. If the material is found to be discarded it is a solid waste and cannot be burned without triggering the CISWI regulation.

Please note that the effective dates for these rules are not the same. The revised 40 CFR Part 241 is effective on April 8, 2013, while subpart CCCC (including the definition of “contained gas”) is not effective until August 7, 2013.

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These subparts were given as,

- (1) Traditional fuels and clean cellulosic biomass (40 CFR §241.2),
- (2) Fuels or ingredient products used in a combustion unit that are made from discarded materials (*id.* §241.3(b)(4)),  
and
- (3) Scrap tires and dewatered pulp and paper sludges (40 CFR §241.4(a)(1), and (4)).