Coalition for Responsible Waste Incineration

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January 7, 2013

EPA Docket Center (EPA/DC)
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave, NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2009-0234

The Coalition for Responsible Waste Incineration (CRWI) appreciates the opportunity to submit comments on *Reconsideration of Certain New Source and Startup/Shutdown Issues: National Emission Standards for Hazardous Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial- Institutional, and Small Industrial- Commercial-Institutional Steam Generating Units; Proposed Rule*. 77 Fed. Reg. 71,323 (November 30, 2012). CRWI is a trade association comprised of 23 members.

CRWI has concerns about five issues associated with the proposed reconsideration rule.

1. The Agency should retain the quarterly testing option for PM.

2. The Agency should include all three options for PM CPMS in the final rule.

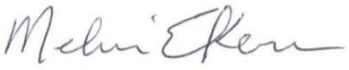
3. CRWI supports the use of work practices for startup and shutdown periods.

4. The Agency should include biodiesel and renewable fuels in their list of “clean fuels.”

5. The proposed definition of natural gas should be modified.

Specific comments on each of the issues listed above are attached. Thank you for the opportunity to comment on this proposed rule. If you have any questions, please contact me at (703-431-7343 or mel@crwi.org).

Sincerely yours,



Melvin E. Keener, Ph.D.
Executive Director

cc: CRWI members
W. Maxwell – EPA

Specific comments

1. The Agency should retain the quarterly testing option for PM.

   At 77 Fed. Reg. 71,329, the Agency requests comments on whether to keep the option of quarterly testing for PM. The Agency states that they believe that most sources will use either a PM CEMs or a PM CPMS and as such, the quarterly testing option may not be necessary. While the Agency may believe that few will use the quarterly testing option, they do not present any evidence to support that belief. As such, we see no reason to discard the quarterly testing option. Some sources may use quarterly testing early in the compliance process while they are making sure their CEMs or CPMS is working properly. In addition, some source may find it to their advantage to use quarterly testing as a way to show compliance. Leaving this option in the rules does not cost the Agency anything and may give facilities an additional way to show compliance with the standard.

2. The Agency should include all three options for PM CPMS in the final rule.

   At 77 Fed. Reg. 71,329, EPA solicits comments on three options for new units on how to set operating parameters for their PM CPMS. The three options are to use the highest one-hour average during the test (option 1), the average during the test (option 2), or to allow extrapolation up to 75% of the emissions limit (option 3). In the *Federal Register* notice, EPA proposes option 1 (77 Fed. Reg. at 71,339). However, possible regulatory language for the second and third options are included in a docket memo (Docket ID no. EPA-HQ-OAR-2009-0234-20226). CRWI believes that EPA should include options wherever possible. As such, we believe that the Agency should include the proposed language in Docket memo 20226 with some modifications. The language in the docket memo would require an existing facility to use the highest one-hour average option and a new unit to use either the extrapolation process (if the emissions were below 75% of the standard) or the average option. CRWI sees three problems with the proposed language in the memo. First, we do not see any reason why both new and existing sources should not be able to use all three options. CRWI believes this is what EPA intended (based on the preamble discussion at 77 Fed. Reg. 71,330) but the actual drafting of the regulatory language became confused during the rush to get the rule proposed. Second, the language in paragraph (2)(i) of the docket memo is confusing. It appears to require the use of option 2 (averaging) but the following paragraphs (A) through (D) describe the method to extrapolate up to 75% of the standard (option 3). We suggest that the Agency clarify the language in (2)(i) to make it clear that the facility is allowed to use option 3 when the test shows the emissions are below 75% of the standard. Finally, there four additional paragraphs (iii, iv, v, and vi) that are not needed. CRWI suggests that these paragraphs be dropped.

   In addition, CRWI supports the idea of allowing a facility to retest when the limit established during the annual test is exceeded. This allows the facility to show that

they did not exceed the standard and over time, give them the experience and confidence that they are complying with the PM standard.

3. CRWI supports the use of work practices for startup and shutdown periods.

   In addition to the reasons stated in the February 12, 2012, final rule (77 Fed. Reg. 9,304) and the proposed rule (77 Fed. Reg. 71,323, November 30, 2012), CRWI would like to add the following reason why work practices should be used for these periods of operations. In the industrial boiler final rule (76 Fed. Reg. 15,608,15,613, March 21, 2011), EPA stated

   > As discussed in Section V.F of this preamble, we considered whether performance testing, and therefore, enforcement of numeric emission limits, would be practicable during periods of startup and shutdown. EPA determined that it is not technically feasible to complete stack testing—in particular, to repeat the multiple required test runs—during periods of startup and shutdown due to physical limitations and the short duration of startup and shutdown periods.

   The circumstances for EGUs are the same – it is not technically feasible to test during periods of startup and shutdown.

4. The Agency should include biodiesel and renewable fuels in their list of “clean fuels.”

   EPA is proposing to include certain synthetic natural gas, syngas, propane, and ultra-low sulfur diesel to the list of clean fuels that can be used for startup and shutdown (77 Fed. Reg. at 71,339). CRWI encourages the Agency to add biodiesel and renewable fuels to this list.

5. Multiple definitions of natural gas are not needed.

   EPA has defined natural gas in at least two other places. In Part 60, Subpart Db (40 CFR 60.41b), the Agency defines natural gas as

   Natural gas means:
   (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
   (2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or
   (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

In Part 63, Subpart DDDDD (40 CFR 63.7575), the Agency uses a similar definition but adds a fourth provision that includes propane.

> *Natural gas* means:
> (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
> (2) Liquid petroleum gas, as defined in ASTM D1835 (incorporated by reference, *see* § 63.14); or
> (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 mega joules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot); or
> (4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C3H8.

In the February 12, 2012, final rule (77 Fed. Reg. at 9,486), the Agency creates a third definition of natural gas.

> *Natural gas* means a naturally occurring fluid mixture of hydrocarbons (*e.g.,* methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 Btu per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

In this proposed rule (77 Fed. Reg. at 71,335), EPA proposes to modify the definition of natural gas as follows.

> Natural gas means a fluid mixture of hydrocarbons (e.g., methane, ethane, or propane), composed of at least 70 percent methane by volume or that has a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot), that maintains a gaseous state under ISO conditions. In addition, natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Finally, natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

CRWI does not understand why there needs to be a different definition for natural gas for different combustors. Natural gas is a commodity that is traded worldwide. The caloric value is variable depending upon the gas field source, how it is treated before being put into the pipeline, and what is actually put in the pipeline. For example, the North American Combustion Handbook, Third Edition lists gross calorific values for various natural gases (Page 36, Table 2.12a and Page 37, Table 2.12b). The gas with the lowest gross caloric value is from the Netherlands and has a value of 887 Btu/dscf. The gas with the highest gross caloric value is from Libya and has a value of 1339 Btu/dscf. This range is much wider than EPA has defined in any of their definitions. While most current North American gas production falls within the 910 to 1,150 range, there is no way to determine the gross caloric value of future gas discoveries. From a purely technical basis, 900 Btu/dscf natural gas has sufficient energy to sustain combustion at the levels needed during normal operations as well as during periods of startup and shutdown (as long as good combustion conditions are met). Natural gas with gross caloric values above 1,150 Btu/dscf will also produce a clean flame provided that good combustion conditions are met. There are no real practical reasons to put an upper limit on the definition of natural gas. While we believe that the upper restrictions in Db are too low, we can see how a consistent definition would be desirable even though it may force facilities to “dilute” their natural gas stream with inerts during certain operations should they consistently get high caloric value gas.

When most facilities develop a contract with their gas supplier, they specify the caloric range and the sulfur content of the gas to be supplied. However, they have no control over what gas is shipped to them or if any of the “banned” gases are added. Members have experienced short term spikes above 1,110 Btu/dscf. Often they will not know about these spikes until after they receive the analysis data at the end of each month. To address this, we suggest that the Agency allow for averaging the gross caloric value over time (e.g., quarterly) to meet the 910 to 1,150 Btu/dscf range. In addition, they would have no control over (or even know about) whether a pipeline company would add landfill gas if that material was available. Their only recourse is to call up the supplier, ask what happened, and tell them not to do it again. However, the facility may be liable for a deviation for which they have no real control over.

We also do not see any reasons to specifically exclude the gases listed in the last part of the definition. The majority of these gases would not meet the minimum gross caloric value. If they did and would meet the maximum sulfur content, there are no practical or technical reasons why these fuels would not create as clean a flame as would natural gas. If they do not meet the gross caloric value or the maximum sulfur content, they cannot be used. Thus, if they do not meet the criteria, the exclusion is redundant and if they do meet the criteria, it may exclude some materials that will provide a clean flame and give the facility additional operating flexibility.

To address these issues, we suggest that the Agency revise the definition of natural gas to expand the range of gross caloric values to match the definition in Db, allow for averaging of the gross caloric values over time, and drop the listed exclusions.