Coalition for Responsible Waste Incineration

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E. I. Du Pont de Nemours
Eastman Chemical Company
Heritage Thermal Services
INVISTA S.àr.l.
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March 9, 2015

Environmental Protection Agency
EPA Docket Center (EPA/DC)
Mail Code: 28221T
1200 Pennsylvania Ave, NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2003-0119

The Coalition for Responsible Waste Incineration (CRWI) appreciates the opportunity to submit comments on *Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units: Proposed Rule.* 80 Fed. Reg. 3,018 (January 21, 2015). CRWI is a trade association comprised of 25 industry members. A number of CRWI members own and operate facilities that will be impacted by this rulemaking.

CRWI is submitting comments on four specific areas. These are:

1. Definition of "CEMs data during startup and shutdown;"
2. Fuel variability factor for coal-burning energy recovery units;
3. Definition of "chemical recovery unit" in § 60.2265 and § 60.2875; and
4. Mass balance can be used to show compliance but cannot be used in lieu of annual performance testing.

Detailed comments on each of these areas 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
N. Modak, EPA

<u>Specific issues</u>

1. Definition of "CEMs data during startup and shutdown."

   As a part of this reconsideration, the Agency is asking for comments on several issues related to the definition of "CEMs data during startup and shutdown." 80 Fed. Reg. at 3,020. This issue is really a discussion on when to apply an oxygen correction factor to any CEMS readings. While it is appropriate to correct the CEMs reading to a certain percentage oxygen concentration (in this case, 7 percent), there are times when this correction factor overwhelms the actual CEMs reading. For example when the oxygen concentration in the combustion chamber approaches ambient, the correction factor approaches infinity because you are dividing by zero. The Agency recognizes this problem and proposes to restrict its use to certain circumstances. Startup and shutdown are two examples of when it is not appropriate to apply a correction factor because during parts of these phases of operation, the concentration of oxygen in the combustion chamber approaches ambient. CRWI supports the idea of restricting the use of the oxygen correction factor in this case to periods when the oxygen concentration is reasonably close to 7 percent.

   As proposed, the oxygen correction factor would be applied at all times except the first 48 hours of startup and the last 24 hours of shutdown for incinerators, small remote incinerators, and energy recovery units. CRWI believes that this length of time would be adequate in most cases.

   The Agency also requested comments on the idea that the definition should be extended until waste is introduced into the system and if included, how much time should elapse after the waste has been added. CRWI members know that any time the feed to a combustion chamber is modified (e.g., new material added, same material with higher or lower feed rates, etc.), the combustion process is disturbed. Just how long it takes for the combustion process to re-stabilize depends upon a number of factors (size of the combustion unit, amount of waste introduced, the Btu content of the waste introduced, the combustibility of that waste, the operating conditions, etc.). We believe this is something that is best decided on a site-specific basis and urge the Agency to allow this as an option.

2. Fuel variability factor for coal-burning energy recovery units.

   CRWI supports EPA using a fuel variability factor to set standards for coal-burning energy recovery units. Under section 129 of the Clean Air Act, EPA is required to establish new source standards based on what has been "achieved in practice" by the best performing source or existing source standards that have been "achieved" by the best performing sources. Therefore, these provisions require EPA to ascertain, or estimate, what has been achieved by the best sources. However, what has been achieved is different based on whether the unit was combusting waste,

waste and coal, or coal only. Since these units are regulated in all modes of operations, EPA's standards must be based on data from all modes of operation.

In the 2013 CISWI rule, EPA based its standards on emissions data from units' combusting a combination of waste and coal, but applied them at all times, *e.g.,* when a source is combusting only coal or a combination of waste and coal. A Petitioner provided EPA with data on coal content and asked the Agency to consider this data when setting standards that will apply at all times. EPA is proposing to do so by developing a fuel variability factor that estimates emissions for all modes of operation.

<u>EPA's has a duty to set standards based on what has been achieved considering all relevant factors that affect emissions</u>.

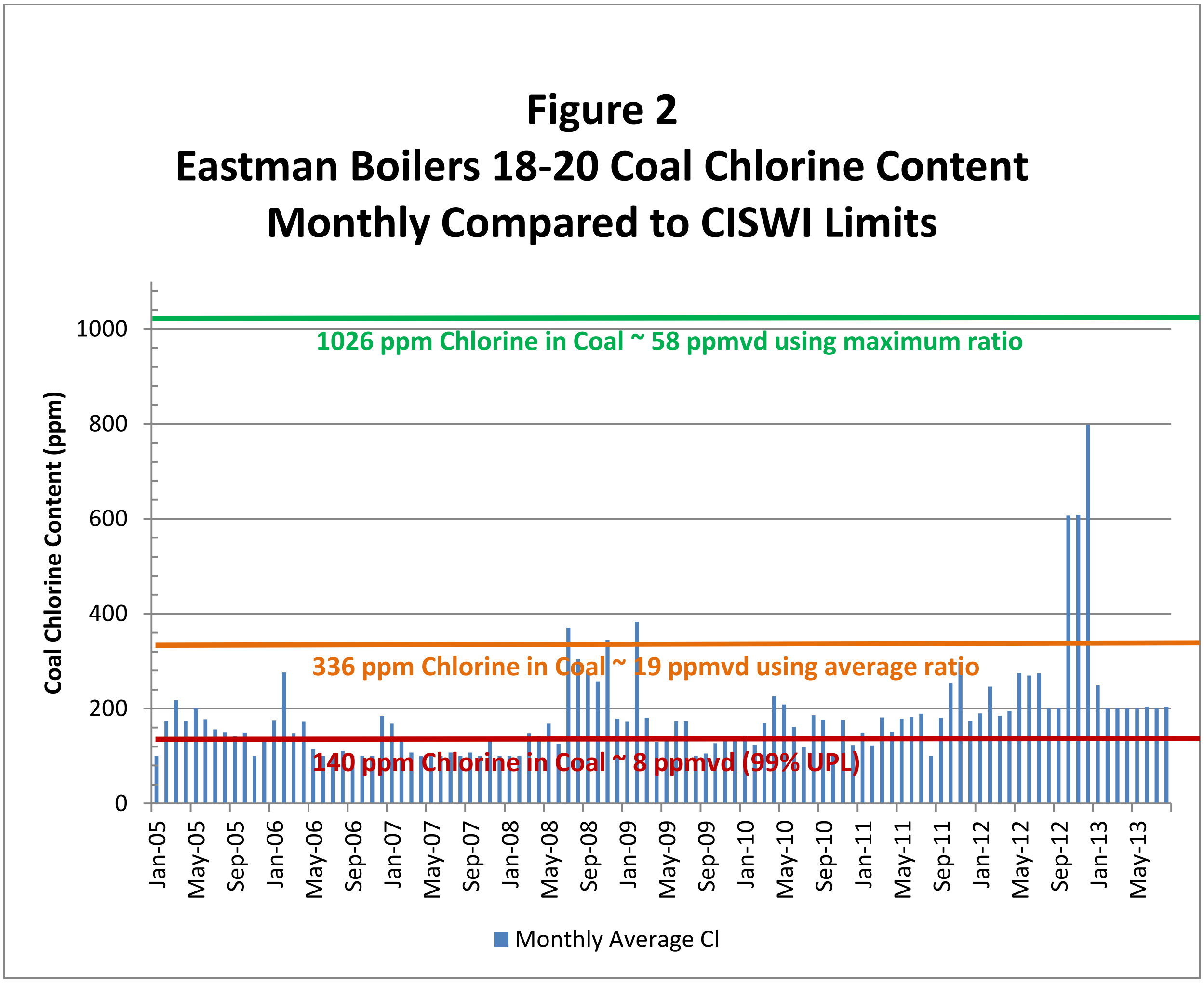
CRWI believes that EPA is required to consider fuel variability when setting standards under Section 129 of the Clean Air Act, particularly since a CISWI unit does not cease to be a CISWI unit unless it has not burned waste for at least six months. Thus, a CISWI unit will be regulated under the same standards when it is burning waste and coal and when it is only burning coal. Estimating the emission levels achieved when a unit was burning waste and coal does not reflect the level achieved when combusting only coal and may bias the standard since the waste feed may be less, or more polluting than coal alone. Thus, the current "coal and waste" based standard does not reflect what has actually been achieved.

Not only does EPA have a statutory duty to set standards based on what has been "achieved" or "achieved in practice," but EPA must also consider all relevant factors that significantly affect these emissions. *NACWA v. EPA*, 734 F.3d 1115, 1135 (D.C. Cir., 2013). As EPA's proposal demonstrates by comparing the 2013 reconsideration rule standards with the proposed standards, considering pollutant variability in fuel significantly alters the levels that have been, or will be, achieved. Consequently, EPA has a duty to consider the pollutant content of coal.

<u>CRWI supports an HCl limit that can be met by the top performer.</u>

In the 2013 final reconsideration rule, the Agency set an HCl limit of 13 ppmv (Table 7, 78 Fed. Reg. at 9,209). Eastman Chemical Company submitted additional data from the best performing source and in the 2015 proposed reconsideration rule, the Agency recalculated the UPL value for HCl as 8.23 ppmv (Docket ID No. EPA-HQ-OAR-2003-0119-2709, Appendix F). In Table 2 of the preamble (80 Fed. Reg. at 3,023), the Agency applies a fuel variability factor to the UPL value to get an emissions limit of 58 ppmv. In this table, they add a footnote that the 58 ppmv was obtained by using the "maximum ratio." If they had used the average ratio, the potential emissions limitation would have been 19 ppmv, and the only source subject to the limit would be unable to comply. This is contrary to the concept that the standards must be consistent with what the best performers achieved.

To support this adjustment in the standard, Eastman graphed the data they submitted to develop the fuel variability factor as monthly averages. They show this as Figure 2 in their comments (copy shown below). While a monthly average is not exactly the same as a 30-day rolling average, for this purpose, it is essentially equivalent.



This data shows considerable variation. It can easily be seen from the figure that the 58 ppmv number is the only proposed standard in Table 2 of the preamble that the top performing unit can meet all of the time. If the standard were left at 13 ppmv (from the 2013 final rule), the top performer would fail to meet that standard numerous times. If the standard were set at 19 ppmv, the top performer would fail to meet that standard six times over an eight year period. Thus, to make the HCl emissions limit achieved in practice for the top performing source, EPA has no choice but to set the final HCl emissions limitation at 58 ppmv.

The courts have plainly stated that the top performers should be able to meet the standards under the worst foreseeable conditions. *Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1158 (D.C. Cir. 2013). This would not be possible without using the maximum fuel variability factor to modify the UPL calculation to develop the standard. Thus, CRWI supports the use of this fuel variability factor and believes that EPA properly used data provided by Eastman to estimate what the top performers could meet under all foreseeable conditions.

3. Definition of "chemical recovery unit" in § 60.2265 and § 60.2875.

   After the February 7, 2013 final reconsideration rule was published, CRWI pointed out that the definition of a "chemical recovery unit" was different in § 60.2265 and § 60.2875. In this action, EPA is proposing to make them consistent. We appreciate the Agency correcting this typographical error.

4. Mass balance can be used to show compliance but cannot be used in lieu of annual performance testing.

   Since the publication of the January 7, 2013, final rule, the Agency was asked whether mass balance could be used as an operating parameter for certain pollutants and whether this must be measured as a 30-day rolling average instead of using a monthly sample. At 80 Fed. Reg. 3,024, the Agency responded that they did not believe that mass balance could be used in lieu of annual performance testing but suggested that it could be used as an allowable operating parameter where no control device is needed. In addition, the Agency points to 40 CFR 60.2115 as a way of requesting different averaging times. This section requires a facility that uses a control device other than a wet scrubber, fabric filter, activated carbon injection, selective non-catalytic reduction, an electrostatic precipitator, or dry scrubber to petition the permitting authority for specific operating limits. This section includes material balance (feed rate) as a control technique.

   First, CRWI agrees that material balance (or mass balance) is a viable way to show that a facility can meet emission standards where the pollutant in question is not destroyed in the combustion process (e.g., lead, cadmium, mercury and chlorine). If the facility knows the concentration of each of these pollutants in their feed stream, it is an easy calculation (based on feed rate and stack gas flow rate) to determine the maximum concentration of the pollutant in the stack gas. This calculation makes the conservative assumption that everything that is fed into the combustor is emitted out the stack. Since the facility has no air pollution control device for this pollutant, this is a realistic assumption. This is the concept behind the maximum theoretical emissions concentration (MTEC) in the hazardous waste combustor MACT rule. In 40 CFR 63.1201, the Agency defines this concept as "MTEC means maximum theoretical emissions concentration of metals or HCl/Cl, expressed as µg/dscm, and is calculated by dividing the feedrate by the gas flowrate." This process has been used since 2008 for certain hazardous waste burning boilers to show continuous compliance with stack gas emissions limits. We see no reason why the same concepts would not work in combustion units burning solid waste. Thus, we support the idea of using a mass balance approach to show continuous compliance under certain circumstances.

However, we see no reason why it should be precluded from replacing annual testing for metals and HCl. For example, if a facility can show by combining feed rate analysis of mercury combined with stack gas flow rates that it is impossible to exceed the standard, it makes sense to allow that facility to waive stack testing for mercury. EPA recognized this in the hazardous waste combustion rule and allows for a waiver of the test (see 40 CFR 63.1209(m)(1)) under these conditions. In addition, if there are no air pollution control devices on this unit, there are no operating parameter limits to set during the test. We suggest the Agency follow the example in the hazardous waste combustor regulations and allow a facility to waive certain parts of the test where they can demonstrate they meet the standards using a material balance (MTEC) approach.