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EPA Docket Center (EPA/DC)
Environmental Protection Agency
Mailcode: 6102T
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 *Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Proposed Amendments; Non-Hazardous Secondary Materials that are Solid Waste; Proposed rules; Reconsideration of final rule***.** 76 FR 80,452 (December 23, 2011). CRWI is a trade association comprised of 23 members. Some of them own and operate solid waste incinerators and waste-burning energy recovery units, two of the source categories covered by this rule.

CRWI has been extensively involved in the development of rules under the MACT program. MACT rules regulating hazardous waste combustors (40 CFR Part 63, Subpart EEE), a source category covering most of our industrial members, have been at the forefront of many of the MACT's program legal and policy disputes over the past 12 years and were the subject of a decision by the DC Circuit Court of Appeals, *Cement Kiln Recycling Coalition v. EPA,* 255 F.3d 855, 862 (DC Cir. 2001). These rules, and others regulating our members, were also subject to numerous public notice and comment periods from 1996 – 2008, were extensively reviewed by the Agency in light of the *Brick MACT* court decision that plays a major role in this proposal. Consequently, CRWI has considerable expertise in MACT issues.

CRWI has concerns about the following issues associated with the Commercial and Industrial Solid Waste Incineration (CISWI) portion of the proposed reconsideration rule.

1. CRWI supports EPA decision not to regulate burn-off ovens and laboratory analysis units in this rule.
2. EPA should modify the affirmative defense provisions so that it is a “rebuttable presumption.”
3. CRWI suggests that EPA clarify its affirmative defense provisions.
4. CRWI requests revisions to §§ 60.2210(m) and 60.2770(m) so they do not contradict §§ 60.2170(c) and 60.2735(c).
5. CRWI supports removing the requirement to correct CO measurements during periods of startup and shutdown but suggests that the criteria for the exclusion be modified.
6. EPA should expand the definition of “CEMS data during startup and shutdown” to included other CMS data.
7. CRWI supports the use of 0.3 ng TEQ/dscm as the lowest reliable quantification level for dioxin/furans.
8. CRWI supports putting the definition of “contained gaseous materials” back in the rule.
9. EPA has the authority and should allow facilities to use feed stream analysis or other supplemental information to demonstrate compliance.
10. EPA has the authority to promulgate percent reduction standards.
11. The PM CPMS provisions should be modified.
12. CRWI requests that EPA add a provision allowing existing sources to operate outside their established operating parameter limits during subsequent performance tests.
13. CRWI supports the clarifying language proposed for the definition of chemical recovery unit and requests that it be adopted.

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
T. Jones – EPA

Specific comments

1. CRWI supports EPA decision not to regulate burn-off ovens and laboratory analysis units in this rule.

A. Burn-off ovens

In the March 21, 2011, final rule, EPA modified the definition of burn-off ovens to preclude them from being regulated as CISWI units. In the preamble of this proposed rule (76 Fed. Reg. at 80,460), the Agency states that they made that decision "based on the comments, the lack of data, and our determination that we did not need to regulate burn-off ovens to comply with our CAA section 112(c)(6) obligation." CRWI supports that decision and would like to add the following additional reasons why EPA should not include burn-off ovens in this rule.

1) Purpose and operations of burn-off ovens

It is common practice in industry (such as plastics or latex manufacturers, plastics or latex processors, polymer production facilities, as well as others) to use on-site ovens (electric or gas-fired) to clean solidified material off of small metal parts (extrusion dies, screen packs, extrusion screws, filters, gears, etc.) during maintenance so these parts can be reassembled properly after the maintenance is completed. Most of these units do not use incineration or combustion processes. Rather, they use lower temperature processes such as melting or pyrolysis to melt/decompose materials such as plastic or polymer. Some of these ovens are specifically designed to avoid flaming conditions which would damage the parts being cleaned. After loading, the oven is turned on and the temperature starts to rise to the optimum cleaning temperature. As the temperature rises, the initial cleaning is accomplished by melting the material and the molten material is collected in a pan or separate chamber. At some point, the conditions are such that the physical change (melting) is replaced by a chemical change (pyrolysis) to any remaining material. A number of these units have water spray controls to prevent flames and to keep the materials on the parts from burning and increasing the temperature on the part. In many cases, the on-site units may be no larger than a residential or commercial self-cleaning oven and will have fossil fuel BTU ratings of 1MM BTU/HR or less. CRWI does not believe these units should be considered as CISWI units since no solid waste is being combusted.

2) These units are not combustors under Section 129.

Section 129 of the Clean Air Act requires EPA to set numerical standards for solid waste incineration units. Congress defines a "solid waste incineration unit" as "a distinct operating unit of any facility which combusts any solid waste material…" Congress did not define "combust" or "pyrolysis." Combustion or burning is the sequence of exothermic chemical reactions between a fuel and an oxidant accompanied by the

production of heat and conversion of chemical species. In combustion, the release of heat can result in the production of light in the form of either glowing or a flame. Pyrolysis is the chemical decomposition of condensed substances by heating that occurs spontaneously at certain temperatures, or a chemical change or degradation of material brought about by the action of heat. Melting is a physical change brought on by heat. In fact, the prevention of combustion is particularly desired in a burn-off oven so as not to damage the metals parts being cleaned. CRWI believes these units should not be included in this rule since they practice pyrolysis of solids, are purposely designed and operated to avoid combustion, and are already appropriately addressed under various state mechanisms due to the nature of the small potential for emissions. We believe that these units were appropriately excluded in the original CISWI rule and that they should continue to be excluded.

Even if EPA were to disagree with the claim that burn-off ovens do not employ combustion, section 129(g)(1) clearly identifies certain units that are not solid waste incineration units under the act. One such unit is a materials recovery facility which combusts waste for the primary purpose of recovering metals. These ovens definitely have a primary purpose to recover metals even though the metals they are recovering are intact metal articles.

3) Many burn-off ovens do not have stacks or their stacks are too small to use EPA standard methods.

Many burn-off ovens are not equipped with stacks because of the small size of the units. The small units may only have a vent of 2-3 inches in diameter, which cannot accommodate the methods requirements for sampling (Method 1 requires a minimum stack diameter of 12 inches – Part 60, Appendix A). In addition, these units (both small and large) are batch operated and many run on short cycles. For example, the cycle can consist of 2 hours of heat-up, followed by 2-3 hours of pyrolysis, and finally by 2-3 hours of cool down. The sampling methods for a number of the regulated pollutants require a sample time of three or more hours which can easily exceed the pyrolysis time of the units. Thus, it may be impossible for these units to use approved testing methods to conduct their initial tests or to show future compliance.

4) Alternatives will cause more environmental harm

If included in the CISWI rule, it would actually be a disincentive to reuse parts, especially small parts. This appears to be in conflict with resource recovery objectives and may show that these standards do not adequately consider cost and environmental impact necessary to promulgate standards under section 111. If the added expense of cleaning can be justified, facilities will need to ship these small metal parts to larger commercial units and will be forced to keep more spare parts on hand (a prohibitively large expense for many specialized machined parts). Of course, such shipment assumes even the larger ovens can comply, which is not certain since EPA expected

most of these ovens to shut down (75 Fed. Reg. 31,956, June 4, 2010). CRWI believes that the transportation emissions would dwarf the emissions from these small units.

In many cases, industry began to use burn-off ovens because the previous option of chemical cleaning of these parts involved chlorinated solvents, caustic solutions or other means that were much more environmentally unfriendly, resulting in greater potential for exposure to employees and generating a great deal more waste. Abrasive cleaning is not a viable option for machined parts since abrasion can damage the parts rendering them useless for further process use. If the Agency were to regulate burn-off ovens, EPA will be hindering a superior cleaning method. EPA's expectation that industry will transition to other methods ignores the fact that the other cleaning methods are environmentally and physically inferior.

5) A number of states have already developed methods to regulate this source category.

Some, if not most, states already realize that the potential for emissions from these units is inconsequential because of the small amount of material that they remove and the small amount of emissions that these units could conceivably produce. The vendor for one of the units advertises in their literature that many states have long recognized that regulating the emissions from these units is a somewhat useless activity. The vendor lists the states of Alabama, Connecticut, Georgia, Hawaii, Iowa, Kansas, Maine, Minnesota, Montana, Nevada, North Carolina, Oklahoma, South Dakota, Tennessee, Texas, and Wisconsin as having various mechanisms for addressing this miniscule concern (exemptions based on amount of emissions, exemptions based BTU release rate, exemptions based on solids capacity, permits by rule with only minimal requirements, etc.). To include these units as CISWI regulated units would force these states, and likely others not listed, to regulate something that they have long known to be a useless activity.

6) The potential to emit the listed pollutants is low

In many applications, the material being removed is food grade material or other materials directly used by consumers (e.g., polyethylene, polypropylene, latex etc.). As such, these materials would not be expected to contain or generate most of the Section 129 substances of concern (sulfur, chloride, lead, cadmium, and mercury). Because of the lower pyrolysis temperatures and the low potential for chloride content, the potential to generate dioxins and furans is likewise low. Even if EPA believes they must regulate these units, there should be ample opportunity for EPA to limit any emission standards to those constituents that might be expected instead of the full Section 129 list.

In summary, CRWI supports EPA's decision not to include burn-off ovens in the CISWI rule.

B. Laboratory analysis units

In the March 21, 2011, final rule, EPA modified the definition of laboratory analysis units to preclude them from being regulated as CISWI units. In the preamble of this proposed rule (76 Fed. Reg. at 80,460), the Agency states that they have concluded that samples used in laboratory analysis units "have a purpose separate from the disposal of material" and as such are not a solid waste. We agree with that logic and decision. Materials being combusted for laboratory analysis units are not being abandoned, discarded, recycled, disposed of, inherently waste like, or thrown away. See *e.g*., 40 CFR § 261.2. While these materials are destroyed in the process of making the analysis, the purpose is not destruction but analysis. We agree with the Agency that destruction of material in laboratory instruments should not be considered as discard and as a result, the materials combusted are not solid waste and laboratory analysis units should not be included in the CISWI rule. Thus, we support EPA's current definition of laboratory analysis units.

2. <u>EPA should modify the affirmative defense provisions so that it is a "rebuttable presumption."</u>

As EPA knows, malfunctions will occur. Even the best run facilities will have circumstances where events happen that are out of their control. While CRWI believes that EPA must take into account the conditions that occur during malfunctions and establish limits that consider these circumstances, CRWI also agrees that some form of enforcement discretion is needed for malfunctions. As such, we support EPA maintaining a regulatory provision for malfunctions. However, we are concerned that allowing a facility to interpose an affirmative defense for violations caused by malfunctions implies that the facility is guilty until proven innocent and improperly shifts the burden to the facility. Therefore, CRWI suggests that EPA establish a rebuttable presumption (rather than affirmative defense) where it is presumed that any violation occurring during the malfunction was not the facility's fault unless the Agency proves certain facts that are enumerated in the rules. This will allow the Agency to challenge the alleged deviation without compromising the legal rights of either party.

3. <u>CRWI suggests that EPA clarify its affirmative defense provisions.</u>

While we prefer EPA use a rebuttable presumption, should the Agency keep the affirmative defense concept, CRWI suggests the following modifications to the language to make it more usable. CRWI understands that most of the provisions EPA has proposed for the affirmative defense comes from earlier guidance memos. While these provisions were in guidance, the Agency did not need to be careful of the wording since they were only guidance and did not have the weight of regulation. However, if the Agency wants to codify this guidance into regulatory language, several changes are needed. For example, EPA should drop the reference to "any" activity in this paragraph. There are also several references to "All" that would make it difficult to satisfy the requirements of an affirmative defense. In addition, the language in the provision is contradictory. In paragraph (a), the phrase "preponderance of evidence" is used while

later in that paragraph (iii), the language refers to “any activity” meaning that more than preponderance of evidence is needed. This same trend occurs in paragraphs (5) – “All possible,” (6) “All,” (7) “All of the actions,” and (8) “At all times.” While “all” would include “preponderance,” “preponderance” does not mean all of the time. CRWI suggests that the phrase “preponderance of evidence” is adequate and the references to “all” and “any” in the later paragraphs should be modified.

To many engineers, the term “root cause analysis” implies a specific formal process. For many malfunctions, the cause is immediately obvious and a formal process for determining the cause is not needed. When a malfunction occurs, the expectation is that the facility will correct the problem as quickly as possible and return to their operating window. A formal root cause analysis is typically limited to very significant events or repeat events. For example, if a thermocouple fails, the most likely cause is a bad thermocouple. The first response is to simply replace the thermocouple. However, if a second thermocouple fails within a short period of time, then something else may be causing that event to happen and a more detailed analysis may be needed. It may take several failures before the real cause is identified. Here a formal root cause analysis may be needed, but it certainly is not needed to replace the first failed thermocouple. The proposed language assumes that all malfunctions are equally significant and need an identical degree of investigation. For example, a missing data point due to a malfunction of the data acquisition system is not as significant as a power failure or a catastrophic event such as fire or explosion. CRWI believes that a formal root cause analysis should only be used when other reasonable methods fail to show what caused the malfunction or when the serious nature of an event might make such an analysis necessary. Moreover, other tools may be more appropriate (e.g., failure mode and effect, fault tree, etc.) or more powerful tools may be introduced in the future. The facility is the only one that can and should decide what tool to use to determine the cause of the malfunction.

Part of this problem may be in communications. To some companies and potentially to some local regulators, the term “root cause analysis” implies a specific formal process. There are several techniques that may be called “root cause analysis,” depending on the author and industry. If EPA intends for the facility to investigate and fix the source of the malfunction so that it is less likely to recur, CRWI supports that concept but suggests that the Agency use an alternative term that does not carry a specific meaning. However, if the Agency envisions a formal process for determining the root cause for every malfunction, no matter how simple, CRWI believes this is unnecessary and would result in excess efforts with no environmental gains.

In a recently proposed rule (77 Fed. Reg. 4,522, 4,538, January 30, 2012), EPA proposed dropping the immediate notification process and simply requiring a written report within 45 days of the malfunction. CRWI suggests that the Agency adopt the same change in this regulation. If the Agency keeps the immediate notification requirement, faxing is an obsolete technology. EPA should allow notification by e-mail or other electronic means. As facilities and EPA move toward electronic recordkeeping,

it makes no sense to require keeping a "properly signed, contemporaneous operating logs" as a requirement for an affirmative defense. There are a number of electronic methods for maintaining records currently available (and more will likely be available in the future). As such, we suggest modifying this provision. In addition, it is impossible to eliminate the causes for certain malfunctions (e.g., lightning strikes).

Finally, CRWI notes that EPA does not allow facilities to assert an affirmative defense for the exceedance of an emission limit during malfunctions if EPA is seeking to enforce that emission limit through injunctive relief. Apparently the Agency takes that position based on a memorandum, State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown at 2 (Sept. 20, 1999). (SIP SSM Memo) CRWI asserts that this policy is wrong. The type of legal action or relief should have no bearing on the availability of this defense. A malfunction "is a sudden, infrequent, not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner." 40 CFR § 60.2. It is not affected by the type of enforcement action EPA may eventually bring. Indeed, because a malfunction is not reasonably preventable, enforcement actions, regardless of type, have no deterrent effect on them. Therefore, the type of legal action EPA uses to enforce a violation of its emission limits is simply irrelevant to whether the violation should be excused because of circumstances beyond the facilities control.

Consequently, CRWI believes that not allowing an affirmative defense in an action for injunctive relief is arbitrary and capricious. As the D.C. Circuit Court stated in *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427. 433 (D.C. Cir. 1973) a case reviewing a § 111 rule, the court held that startup, shutdown, or malfunction ("SSM") provisions are "necessary to preserve the reasonableness of the standards as a whole." The D.C. Circuit Court of Appeals has also noted that "[a] technology-based standard discards its fundamental premise when it ignores the limits inherent in the technology." *NRDC v. EPA*, 859 F.2d 156, 208 (D.C. Cir. 1988). Therefore, EPA should not apply a policy drafted to "ensure that SIPs provide for attainment and maintenance of the national ambient air quality standards ("NAAQS") and protection of prevention of significant deterioration (PSD) increments" and other risk-based programs, SIP SSM Memo at 2, to the CAA § 129 technology-based program.

CRWI suggests that EPA consider making the following modifications to the regulatory language in §§ 60.2120 and 60.2685 to address the concerns mentioned above and to make an affirmative defense a more useful tool (using ~~strikeout~~ to show text deleted and <u>underline</u> to show text added).

§ 60.2120 Affirmative Defense for Exceedance of an Emission Limit During Malfunction.

In response to an action to enforce the standards set forth in paragraph § 60.2105, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the

requirements in the affirmative defense. ~~The affirmative defense shall not be available for claims for injunctive relief.~~

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been reasonably prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from an~~y~~ activity or event that could have been reasonably foreseen and avoided, or planned for; and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) ~~All possible~~ Reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6) ~~All e~~Emissions and/or parameter monitoring and systems, as well as control systems, were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) ~~All of the a~~Actions in response to the excess emissions were documented ~~by properly signed, contemporaneous operating logs~~; and

(8) ~~At all times, t~~The facility was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written ~~root cause analysis~~ report has been prepared, the purpose of which is to determine~~, correct,~~ and ~~eliminate~~ mitigate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. Facility personnel will determine the appropriate type of analysis required (may include but not limited to root cause analysis, failure mode and effect, fault tree, etc.) to identify the cause of the malfunction. The ~~analysis~~ report shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) Notification. The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall ~~notify the Administrator by~~

~~telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also~~ submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in § 60.2105 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

§ 60.2685 Affirmative Defense for Exceedance of an Emission Limit During Malfunction.

In response to an action to enforce the standards set forth in paragraph § 60.2670 you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at § 60.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. ~~The affirmative defense shall not be available for claims for injunctive relief.~~

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been <u>reasonably</u> prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from an~~y~~ activity or event that could have been <u>reasonably</u> foreseen and avoided, or planned for; and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) ~~All possible~~ Reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6) ~~All e~~Emissions and/or parameter monitoring and systems, as well as control systems, were kept in operation if at all possible, consistent with safety and good air pollution control practices;

(7) ~~All of the a~~Actions in response to the excess emissions were documented ~~by properly signed, contemporaneous operating logs~~;

(8) ~~At all times, t~~The facility was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written ~~root cause analysis~~ report has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. Facility personnel will determine the appropriate type of analysis required (may include but not limited to root cause analysis, failure mode and effect, fault tree, etc.) to identify the cause of the malfunction. The ~~analysis~~ report shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall ~~notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also~~ submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in § 60.2670 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45-day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedances.

4. CRWI requests revisions to §§ 60.2210(m) and 60.2770(m) so they do not contradict §§ 60.2170(c) and 60.2735(c).

CRWI believes that the language of §§ 60.2210(m) and 60.2770(m) contradict the language of §§ 60.2170(c) and 60.2735(c) as it relates to reporting. The text of §§ 60.2210(m) and 60.2770(m) require reporting of out-of-control periods for monitoring systems as if they are deviations, while the text of §§ 60.2170(c) and §60.2735(c) says that these periods are not deviations. CRWI requests revisions to §§ 60.2210(m) and 60.2770(m) so they do not contradict §§ 60.2170(c) and 60.2735(c).

5. CRWI supports removing the requirement to correct CO measurements during periods of startup and shutdown but suggests that the criteria for the exclusion be modified.

Petitioners requested that EPA modify the oxygen correction factors for CO measurements when the oxygen concentration approaches ambient. The primary reason for this request is that the correction factor can approach infinity and give a highly inflated estimate of the CO concentration. The Agency agreed with this request (Fed. Reg. at 80,461) and proposed to remove the requirement to correct CO measurements for oxygen concentration for the first four hours of startup and first one hour of shutdown. The Agency obtained these times based on CO CEMs data from one source. CRWI supports the idea of removing the oxygen correction factor for times when this correction will not give an accurate representation of the actual CO emissions. However, we are concerned about putting time limits on when this exclusion can be used. In our experience with hazardous waste fired boilers and incinerators, startup and shutdown do not always proceed as planned. Ideally, four hours from a cold start may be sufficient to get the oxygen concentration sufficiently below ambient to allow the correction factor to be used without creating artificially large CO values. However, that does not always occur. In addition, not all startups proceed on a similar schedule. For example, if a unit is starting up after refractory repair, the protection of refractory from failure during startup is important and can extend the startup period depending on the amount of refractory that is replaced or repaired, as well as the type of refractory that is used. Early in this startup cycle, a unit remains in a low-firing operation where oxygen content is still elevated much above 7%. Such refractory curing period can last for 2 days or more. Rapid shutdown can also cause refractory damage, and it would normally take longer than one hour to reach the point where the oxygen correction can become problematic and the unit can totally cease fuel burning. More time than 1 hour may be needed to make this transition. In fact, the problem associated with the oxygen correction factor is in the last hour of shutdown, not the first hour. Instead of suggesting a time limit, CRWI suggests that EPA remove the oxygen correction requirement for the entire startup and shutdown periods. The Agency did this in the final Portland Cement MACT. 75 Fed. Reg. 54,970, 54,992, September 9, 2010. The Agency's logic for the Portland Cement rule was that the effect of using the correction factor during startup had the effect of making the standards more stringent. The same logic applies for this rule.

While the way EPA handled the oxygen correction factor in the Portland Cement MACT is preferable, an alternative would be to use an oxygen concentration limit instead of a time limit. For example, during startup and shutdown, the facility could use the uncorrected CO data anytime the oxygen correction factor exceeds 2.0 (an oxygen concentration of roughly 14%). Facilities would not be tempted to run in this mode for extended periods of time because is not economical for a unit to operate at this level of oxygen. Particularly for energy recovery units, operating at high excess oxygen is counterproductive to energy efficiency and would negate the use of the unit. Thus there is an economic incentive to make these periods as short as possible.

6. EPA should expand the definition of "CEMS data during startup and shutdown" to included other CMS data.

CRWI believes a similar issue exists for other types of monitoring system as exists for the situation EPA is trying to correct by waiving the oxygen correction factor for CO CEMS during startup and shutdown periods. For example, § 60.2675(f) [and the analogous §§ 60.2110(f)] and 60.2730(e) [and the analogous § 60.2165(e)] require a secondary chamber temperature operating limit set at the lowest 1-hour average value during the most recent performance test. As a result of this requirement, such a CISWI unit could never startup or shutdown without having to transition above or below this operating limit. In addition, CO CEMS are not the only CEMS that would use an oxygen correction factor, and data from those CEMS likewise need a waiver for the same reason. This issue is not restricted to energy recovery units but would happen for any unit using this type of system. One way to resolve this problem would be to expand the definition of "CEMS data during startup and shutdown" in § 60.2265 as follows:

> *CEMS and CMS data during startup and shutdown* means ~~carbon monoxide~~ CEMS and CMS data collected during the ~~first 4 hours of~~ operation of ~~energy recovery~~ CISWI unit startup from a cold start and the ~~hour of~~ operation following the cessation of waste material being fed to the ~~energy recovery~~ CISWI unit during a unit shutdown.

We have not done an exhaustive search of all of the various CMS parameters to know if other examples exist but urge EPA to modify this definition and place its use in all the various sections that need it. At a minimum, references to this definition would need to be added to the various sections in each subpart where CMS data is specified, such as §§ 60.2110, 60.2115, 60.2145, and 60.2165 of subpart CCCC and §§ 60.2675, 60.2680, 60.2710, and 60.2730 of subpart DDDD, so units would not experience deviations or violations during these necessary and unavoidable periods.

7. CRWI supports the use of 0.3 ng TEQ/dscm as the lowest reliable quantification level for dioxin/furans.

EPA requested comments and data on whether 0.3 ng TEQ/dscm is sufficient to reflect the quantifiable concentration levels (76 Fed. Reg. at 80,463). Before discussing the relative merits of a specific concentration level, a few terms need to be defined. When Method 301 was initially promulgated (58 Fed. Reg. 27,338, June 13, 1991), it defined the practical quantification limit (PQL) as the lowest limit above which quantitative results may be obtained with an acceptable degree of confidence. The Method defines PQL as 10 times the standard deviation at a blank level. This PQL corresponds to an uncertainty of ±30% at a 99% confidence limit. The method goes on to say that the PQL will be used to establish the lower limit of the test method. In 2011 (76 Fed. Reg. 28,664, May 18, 2011), EPA revised this method to use a Level of Detection (LOD) which was three times the standard deviation of a blank. When this rule was proposed

(69 Fed. Reg. 76,642, December 22, 2004), commenters suggested that this would correlate to a ±100% uncertainty at a 99% confidence limit. Based on the uncertainty estimate, CRWI believes that the 2011 modification is inappropriate and should not be used.

The results of all sample analysis are an estimation of the true mean. To make sure that the facility and the laboratory do not create a number of either false positives (true mean is below a standard but the test results show a value above the standard) or false negatives (true mean is above the standard but the test results show a value below the standard), facilities and the Agency must be confident that the results presented are a reasonable estimate of the true mean.

CRWI is aware of two sets of data that can address this issue. The first is the paired train data for dioxins and furans that is included in the ReMAP study (American Society of Mechanical Engineers, *Reference Method Accuracy and Precision (ReMAP): Phase 1, Precision of Manual Stack Emission Measurements,* CRTD Vol. 60, February 2001). In this analysis, they determined that the average standard deviation for paired samples (majority of the data is below 0.4 ng TEQ /dscm) was 0.027. If one multiplies this standard deviation by 10 (i.e., according to the 1991 PQL definition), it would give a value of 0.27 ng TEQ/dscm, an approximation of a PQL for dioxin/furans. The second set of data was compiled by Analytical Perspectives. This company specializes in the analysis of various organic pollutants including dioxins and furans. The company has a significant amount of data that allows them to estimate the predicted and upper and lower uncertainty limits associated with different concentrations of dioxins/furans. The analysis for a large number of actual Method 23 data are shown in Figures 1 and 2 (presented at SETAC North America 32nd Annual Meeting in Boston, MA, November 2011).

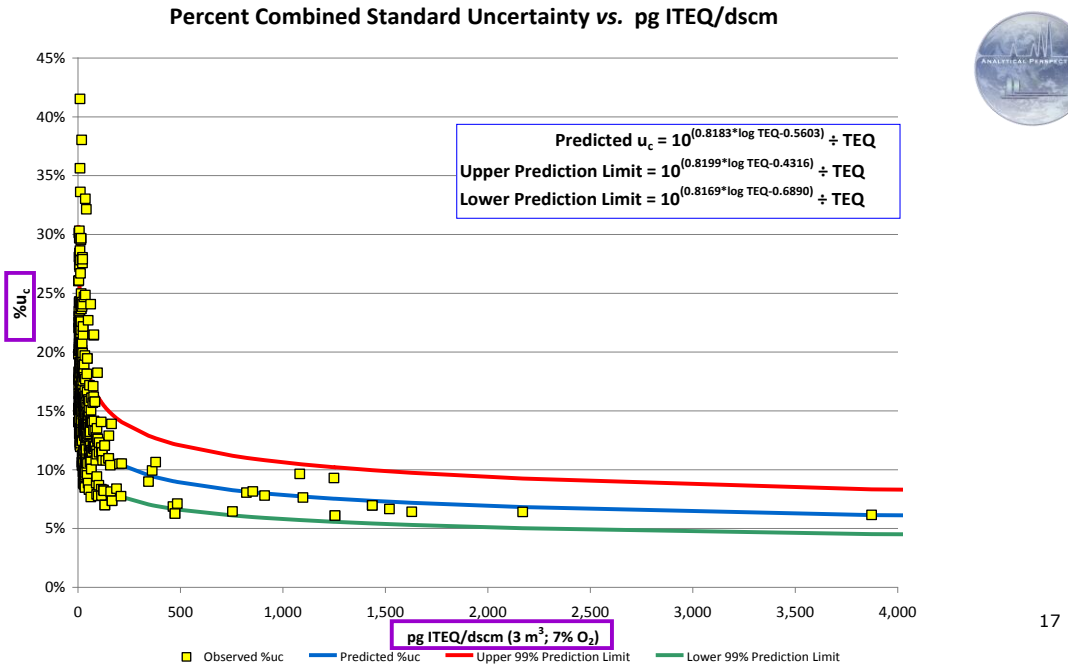

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Figure 1: Variation of the combined standard uncertainty as a function of the concentrations of dioxins and furans as determined from actual Method 23 stack samples (N>400).

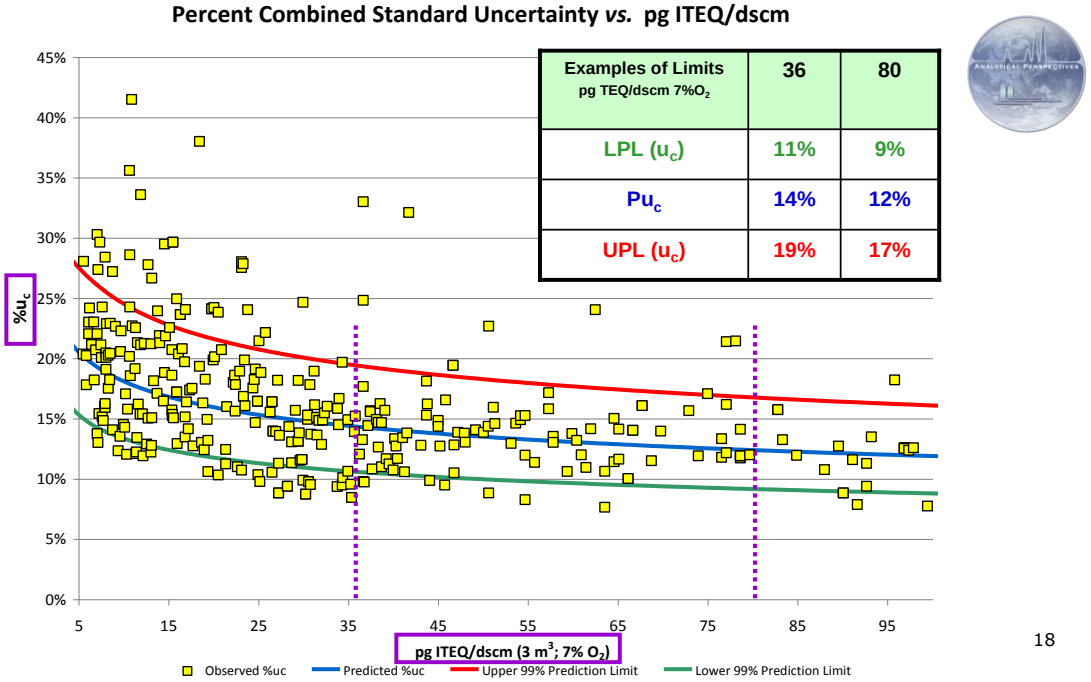

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Figure 2: Expanded view from Figure 1 showing two examples of dioxins/furans limits and their associated predicted, lower and upper predicted combined standard uncertainties.

As one can see from the data, the uncertainty increases as the concentrations of dioxin/furans decrease. This is consistent with the conclusions in the ReMAP study. This data set has sufficient number of points (greater than 400) to develop predictive equations for the expected, lower, and upper uncertainty limits. Using these equations, we can make independent estimates of the uncertainty levels for various concentrations. The following table gives the predicted and ranges of uncertainties for several estimates.

		Uncertainty (% combined standard uncertainty)		
	TEQ pg ITEQ/dscm 7% oxygen	Central Combined Uncertainty	Lower Prediction Limit	Upper Prediction Limit
M301 LOD (2011 version)	5.83	20	15	27
Reporting Limit (3 times LOD)	17.5	16	12	22
M301 PQL (1991 version)	45.4	14	10	19
Fit-for-Purpose	258	10	7	14

The data in this table represent the uncertainties of the mean. To get to the 99% confidence limit of the uncertainty, you must multiply by three. This is to make it comparable to the ±30% uncertainty at a 99% confidence limit of a PQL. As one can see, if the 2011 version of Method 301 LOD is used, it would result in a central estimate of uncertainty to be ±60% (20 times 3) but could be as low as ±45% (15 times 3) or as high as ±81% (27 times 3). This is similar to the uncertainty suggested by commenters when this change was proposed. Even the 1991 version of Method 301 falls short of having a central estimate of ±30% uncertainty (central estimate – ±42%, lower estimate – ±30%, and upper estimate – ±57%). To get to a ±30% central estimate at 99% confidence comparable to a PQL, one has to go to 258 pg TEQ/dscm. This is remarkably close to the 0.27 ng TEQ/dscm as estimated from the ReMAP data.

Two different data sets analyzed in different manners have been used to estimate the lowest value that can be reliably measured for dioxin/furans. One estimate is 0.27 ng TEQ/dscm while the other estimate is 0.26 ng TEQ/dscm. If rounded up, both would produce a lowest value that can be determined at a ±30% uncertainty at a 99% confidence would be 0.3 ng TEQ/dscm. CRWI believes that any estimate below that value would violate data quality objectives and would pose an unnecessary level of uncertainty on any test results, allowing for too many false positives.

8. CRWI supports putting the definition of "contained gaseous materials" back in the rule.

When the March 21, 2011, final rule was published, EPA removed the definition of "contained gaseous material." At the time, the Agency did not feel that this definition was needed. The Agency also created a great deal of concern about how contained gaseous materials are handled when in the response to comment documents they made the statement that gases in pipes were contained. Since that time, the Agency has clarified that it was not their intent to change a long-standing policy on how gases are regulated. CRWI appreciates that effort and supports that decision. We believe that in order to prevent further confusion, it makes sense to put the definition of "contained gaseous material" back into the regulatory language. It would help prevent future misunderstandings. The definition of "contained gaseous material" in the original CISWI rule (65 Fed. Reg. 75,362, December 1, 2000) is as follows.

> *Contained gaseous material* means gases that are in a container when that container is combusted.

CRWI suggests that this definition be added back to §§ 60.2265 and 60.2875.

9. EPA has the authority and should allow facilities to use feed stream analysis or other supplemental information to demonstrate compliance.

In its proposal, EPA notes that some petitioners have asked EPA to allow facilities to use feed stream analysis or other "supplemental information" to demonstrate compliance. 76 Fed. Reg. at 80,464. EPA responds by declining to propose any such monitoring noting that it believes "direct measurement of emissions is the most comprehensive and accurate method to ascertain compliance with the final standards. *Id*. In addition, citing Section 129(c), EPA further declares that even if the Agency wanted to allow facilities to use feed stream analysis or other information, it would be "constrained" by the statute. CRWI believes EPA has authority to allow facilities to use material balancing as a method of demonstrating compliance.

A. EPA has the authority to allow use of feed stream analysis to demonstrate compliance.

In the preamble, EPA explains that petitioners want to "use a material analysis to show that only minimal amounts of a pollutant compound enter the combustion unit. That data, along with data on the flue gas flow rate information could be used by sources to calculate a maximum possible pollutant concentration." *Id.* CRWI asserts that EPA clearly has the authority to allow this compliance mechanism in the CISWI rule.

CAA section 129(c) states that EPA ''shall . . . promulgate regulations requiring the owner or operator of each solid waste incineration unit—

> (1) to monitor emissions from the unit at the point at which such emissions are emitted into the ambient air (or within the stack, combustion chamber or pollution control equipment, as appropriate) and at such other points as necessary to protect public health and the environment;

Since material analysis calculations are made based on data collected within the combustion chamber and the stack, it is clearly lawful. While the method does not monitor emissions where they are emitted into the ambient air, it does monitor the emissions within the stack and combustion chamber, locations clearly authorized by the statute. These locations are on an equal legal footing with the monitoring of emissions at their point of release into the ambient air.

The Agency may be concerned that materials analysis measures feedrate and flue gas instead of directly measuring "emissions" as required by statute. CRWI notes that EPA does not require direct measurement of emissions in other monitoring regimes used in this rule. For example, if a facility is using an electrostatic precipitator, EPA requires the operator to judge compliance for PM based on feedrate and the (secondary) voltage and amperage. 40 CFR § 60.2675(d). Direct measurement of the emission into the ambient air is not required.

CRWI also notes that despite EPA's hesitance to authorize this practice, the Agency actually authorizes use of material balance other places in the rule. For example, in § 60.2680, EPA allows an affected source to petition for its use. See discussion at 76 Fed. Reg. 80,464/3. ("These provisions also allow specific operating limits to be established for CISWI units without any air pollution control devices, such as material balance operating limits to demonstrate continuous compliance.") Clearly, if the facility can petition to use material balance, EPA has already determined it has the authority to allow it.

B. Feed stream analysis is an accurate method of judging compliance.

Using material balancing or feed stream analysis is just as accurate as other methods of judging compliance. This method is well known and EPA often uses it to judge compliance with air standards in combustion units. For example, the Agency allows it in a "Tier 1 Analysis" for hazardous waste boilers and industrial furnaces. 40 CFR § 266.106. EPA also allows it to judge compliance with standards in the hazardous waste combustion MACT. *See e.g.,* 40 CFR § 63.1220(a)(2) and 70 Fed. Reg. 59,402, 59,410, Fn. 11 (October 12, 2005). CRWI notes that gas sampling techniques are simple and the calculation for determining compliance is easy. The concept, of course, is also simple. It measures the amount of pollutant in the material and assumes that all of it will be emitted. If the amount of pollutant in the material is less than the limit when conducting the performance test, then the facility need only monitor feedrate and flue gas rate to remain in compliance. Thus, EPA knows that this is a reliable method of judging compliance.

C. EPA should establish standard provisions for other compliance regimes and avoid a petitioning process.

In the existing rule, EPA establishes a list of monitoring parameters for facilities using specified devices such as a fabric filter, electrostatic precipitator, or activated carbon injection. In its proposed rule, EPA asks whether there are additional types of control where they should identify monitoring parameters. 76 Fed. Reg. 80,464. CRWI says, yes.

While noting that some CISWI units may not have air pollution control devices and might need to use material balance operating limits to demonstrate compliance, EPA does not provide routine procedures for the affected source to implement. Instead, it allows the facility to petition for specific operating limits. 76 Fed. Reg. 80,464; 40 CFR § 60.2680. If a CISWI unit does not need an air pollution control device, it is most likely because the feeds have very low concentrations of a number of pollutants of concern. It seems odd that such low emitting facilities will have to go through more administrative procedure to establish emission limits than other units.

A material balance simply consists of determining the amount of a pollutant entering the combustion source in the feed or the maximum allowable amount of a pollutant that could enter in the feed, and then assuming that 100% of it is emitted. If a source can use this method for some or all of the pollutants, it could greatly simplify continuous compliance as well as the complexity and cost of a performance test. Such an approach would only involve knowing the feed rate (charge rate is already a requirement), a periodic analysis of the feed (such as an annual analysis), and a combustion air flow rate. From the flue gas flow rate and the relevant emission standard, the source could back calculate what the maximum allowable feed rate of the pollutant could be and then demonstrate that they don't or can't exceed that value by analyzing feeds. Some pollutants that are created in the combustion process such as nitrogen oxides, dioxin/furan, and CO, would not be amenable to this method, but others such as sulfur, chloride, lead, cadmium, mercury, and ash (for PM) would be. CRWI requests that EPA provide such a mechanism in § 60.2015 and § 60.2680. In doing so, EPA could avoid requiring sources to petition for operating limits thereby conserving agency resources in reviewing the petitions.

To implement such an approach, CRWI suggests the following revisions to the regulatory text at § 60.2680. CRWI also requests similar text at § 60.2015 for subpart CCCC for the same reason. Underlined text is CRWI's suggested language, while ~~strikethrough~~ text is CRWI's requested deletion:

> (a) If you use an air pollution control device other than a wet scrubber, activated carbon injection, selective noncatalytic reduction, fabric filter, ~~or~~ an electrostatic precipitator or limit emissions ~~in some other manner, including~~ by mass ~~balances~~ balancing under paragraph (b) of this section, to comply with the emission

limitations under § 60.2670, you must petition the EPA Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter. You must not conduct the initial performance test until after the petition has been approved by the Administrator. Your petition must include the five items listed in paragraphs (a)(1) through (5) of this section.

* * * * *

(b) ~~[Reserved]~~ If you limit emissions of cadmium, hydrogen chloride, lead, mercury, and/or sulfur dioxide by using a mass balancing approach, you must do the following:

(1) Establish a charge rate of solid waste feed and fuel (unless a fuel such as natural gas would not be expected to be a source of the pollutants for which the mass balance is used). The operating limit is the highest 1-hour average rate measured during the most recent performance test.

(2) Establish an air flow rate for the emission point. The operating limit is the highest 1-hour average rate measured during the most recent performance test.

(3) Establish a concentration of cadmium, chloride, lead, mercury, and/or sulfur in the solid waste and fuel (unless a fuel such as natural gas would not be expected to be a source of the pollutants for which the mass balance is used) by analysis of samples collected during the performance test (on a 30-minute frequency and composited for analysis).

(4) Use the charge rate, air flow rate, and pollutant concentration to calculate and demonstrate that emissions of the respective pollutants are less than the respective emission standard for the pollutant.

(5) Operate at limits less than the charge rate and air flow rate once those limits are established during the most recent performance test.

If EPA does not include such provisions in the rule, CRWI asks that EPA acknowledge in the preamble to the reconsideration final rule that a material balance approach could be approvable even though a petition might still be needed. This statement is necessary to clear up any confusion that may exist over EPA's statement that it does not have authority to allow material balance under Section 129. Such preamble language could ease the review process for petitions should EPA not agree to our request for changes to the regulatory text.

10. EPA has the authority to promulgate percent reduction standards.

In the preamble, EPA explained why it declined to promulgate percentage reduction standards as an alternative to the "numeric" emission limits it established for affected

sources. 76 Fed. Reg. at 80,464. One of its reasons appears to be Agency doubts about the legality of such a standard, and they directed readers to their discussion of this issue in the Portland Cement MACT proposal at 74 Fed. Reg. 21,149. *Id*. CRWI believes that the Agency's doubts are misplaced.

A. EPA has already recognized that the court's *Brick MACT* decision does not prevent a percent reduction standard.

EPA's discussion of its authority to set percent reduction standards in the Portland Cement MACT proposal presented valid policy reasons for establishing such a standard while noting EPA's concern that a court decision, *Sierra Club v. EPA*, 167 F.3d 658 (D.C. Cir. 2007) (*Brick MACT*), may prevent the Agency from setting such standards. *Id*. Despite EPA's concerns, however, the Agency proceeded to establish a percent reduction standard in the final Portland Cement rule for SO_2, noting that Clean Air Act § 111(b) "specifically indicates that standards may be expressed as numerical limits or as percent reductions." 75 Fed. Reg. at 54,995, fn. 38, 55,017. Since CISWI rules are also § 111 rules, this logic applies to the instant rule as well.

B. CRWI agrees that the *Brick MACT* decision is irrelevant to whether EPA has the authority to set percent reduction standards because it erroneously interpreted its cited precedent.

Even though EPA disavowed a percent reduction standard in the Portland Cement MACT for some pollutants (75 Fed. Reg. at 55,003) it still set such standards for SO_2, irrespective of the Court's *Brick MACT* decision. EPA never explains why it did so. Perhaps it is because, as EPA noted in the preamble to the proposal, the language in the *Brick MACT* decision causing concern is *dicta*, and therefore not binding on the Agency. 74 Fed. Reg. 21,136, 21,149, fn. 20 (May 6, 2009). ("The issue of whether best performers can be based on source's removal efficiency was not presented in *Brick MACT,* or any of the other decided cases.")

CRWI agrees that this particular interpretation of *Brick MACT* is not binding on the Agency. Not only is it *dicta*, the Court's decision does not signify "that best performers are those emitting the least HAP." 74 Fed. Reg. at 21,149. This erroneous interpretation is based on a misreading of a parenthetical statement in the court's decision that says: ''section [112 (d)(3)] requires floors based on emission levels actually achieved by best performers (those with the lowest emission levels).'' The full quote from the *Brick MACT* decision is:

> But EPA cannot circumvent *Cement Kiln's* holding that section 7412(d)(3) requires floors based on the emission level actually achieved by the best performers (those with the lowest emission levels), not the emission level achievable by all sources, simply by redefining "best performing" to mean those sources with emission levels achievable by all sources. *See* 255 F.3d at 861.

Brick MACT, *supra*, at 880-81. Consequently, the *Brick MACT* court was ruling that a prior case, *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d. 855, 861 (D.C. Cir. 2001) ("*Cement Kiln"*) already held that EPA was required to set emission limits equivalent to the lowest emission levels. An examination of the *Cement Kiln* case, however, reveals that it does not hold that section 112(d)(3) requires floors based on the lowest emission levels. The relevant quote in the *Cement Kiln* case is:

> Though section 7412(d)(2) does direct EPA to require the "maximum emission reduction" that it determines to be achievable, section 7412(d)(3) provides that "the maximum degree of reduction in emissions that is deemed achievable ... shall not be less stringent than" what the best-performing sources "achieve." Section 7412(d)(3) therefore limits the scope of the word "achievable" in section 7412(d)(2). While standards achievable by all sources using the MACT control might also ultimately reflect what the statutorily relevant sources achieve in practice, EPA may not deviate from section 7412(d)(3)'s requirement that floors reflect what the best performers actually achieve by claiming that floors must be achievable by all sources using MACT technology.

Cement Kiln at 861. As is readily apparent, the court never stated that the statute requires EPA to set floor standards based on lowest emissions. Instead, it stated that EPA cannot base floor standards on what it believes is achievable by all sources. This conclusion is verified by the court's discussion immediately after this portion of the opinion:

> This interpretation is required by our decisions in *Sierra Club v. EPA, 334 U.S. App. D.C. 421, 167 F.3d 658 (D.C. Cir. 1999),* and *National Lime II, 344 U.S. App. D.C. 97, 233 F.3d 625.* In *Sierra Club*, we held that CAA section 7429(a)(2), which (in language virtually identical to the terms of section 7412(d)(3)) directs EPA to set emission floors for medical waste incinerators, requires EPA "to make a *reasonable estimate* of the performance of the top 12 percent of units." * * * * * While acknowledging that EPA has authority to devise the means of deriving this estimate, we made clear that the method the Agency selects must "allow a *reasonable inference* as to the performance of the top 12 percent of units." *Id.* at 663. We emphasized that EPA must show not only that it believes its methodology provides an accurate picture of the relevant sources' actual performance, but also *why* its methodology yields the required estimate. *Id*. In evaluating EPA's new-source floors in particular, which the Agency based on emission levels achieved by the worst-performing sources using a given control technology, we concluded that EPA had not explained "why the phrase 'best controlled similar unit' encompasses all units using the same technology as the unit with the best observed performance, rather than just that unit itself, as the use of the singular in the statutory

> language suggests." *Id.* at 665. In *National Lime II*, we addressed a Sierra Club petition challenging emission standards set under section 7412(d) for non-hazardous waste-burning portland cement kilns. In evaluating EPA's standards, we reiterated *Sierra Club*'s central holding that "to comply with the statute, EPA's method of setting emission floors must *reasonably estimate* the performance of the relevant best performing plants." *233 F.3d at 632* (citing *Sierra Club, 167 F.3d at 665).*

Cement Kiln, at 861-862 (emphasis supplied). Consequently, nowhere in the opinion did the court say that EPA must set floor-standards equivalent to the lowest emissions in their database. Therefore, the *Brick MACT* court's reference to the Cement Kiln case was not about requiring standards to reflect lowest emissions. Instead, the parenthetical phrase in *Brick MACT* is irrelevant to the Cement Kiln case and inconsistent with *Cement Kiln's* holding that EPA is free to use whatever method it desires to set floor standards as long as it results in reasonable estimates of performance.

Furthermore, EPA has never interpreted *Cement Kiln* to require a lowest emissions approach. In the HWC MACT rule, promulgated four years after the *Cement Kiln* decision, EPA stated that lowest emissions do not always reflect best performers and recognized that such an approach can lead to "the nonsensical result of uncontrolled units being classified as best performers." 70 Fed. Reg. 59,402, 59,448 (October 12, 2005). *See also* discussion at 70 Fed. Reg. at 59,442-43.

C. Recent court decisions cast further doubt on the validity of the *Brick MACT* decision.

The court recently gave EPA another reason to doubt the precedential value of the *Brick MACT* decision. In an eerily similar situation where the court was relying on the *Brick MACT* court's interpretation of another case, Judge Brown cast a decidedly negative eye on that panel's ability to interpret MACT cases. In *Portland Cement Association v. EPA*, (D.C. Cir. 2011), Judge Brown stated:

> *Sierra Club* [*Brick MACT*] relied on our holding in *National Lime Ass'n v. EPA*, 233 F.3d 625, 640 (D.C. Cir. 2000), that the CAA does not require "that [the] achievement . . . be the product of a specific intent." But I do not read *National Lime* to have held that the achievement need not be the product of *any* intent. Instead, context reveals that the *National Lime* Court was referring to emissions of one sort that are "controlled only incidentally by controls placed upon" another sort of emission. *Id.* The incidental control of one emission as the result of controlling another still certainly counts as an "achievement" of emission control. But the Court did not state—or even imply—that emissions levels determined by inputs alone count as an "achievement" of emission control within the meaning of the statute.

Thus, Judge Brown cast considerable doubt on the astuteness of the *Brick MACT* panel's analysis of prior cases. Continuing on, Judge Brown declared that

> Our holding in *Sierra Club* was a self-inflicted wound, and the result of a series of interpretive leaps that I simply cannot follow. I regret that we have ignored Congress's wishes and made life more difficult—for industry and its employees, for EPA, and for ourselves.

CRWI, therefore, urges EPA to avoid perpetuating this "self-inflicted" wound, and to avoid putting too much credence in the *Brick MACT* decision, particularly when the Agency understands that the language it relies upon is *dicta*.

11. The PM CPMS provisions should be modified.

EPA is proposing to modify the particulate matter (PM) continuous monitoring requirements for Energy Recovery Units (ERUs) so they can be used as parametric monitors rather than emissions compliance monitors (76 Fed. Reg. at 80,464). EPA logic for changing the requirements for these units is based on making the rule consistent with the final utility MACT rule (77 Fed. Reg. 9.304, 9,371, (February 16, 2012)) and the coal-fired boilers in the major source boiler MACT rule (76 Fed Reg. at 80,609). EPA's proposal places these units in a difficult position. On the one hand, EPA states these monitors do not have to comply with Performance Specification (PS) 11, while on the other hand, EPA's proposed rule language requires the same host of requirements in a site-specific monitoring plan as any other continuous monitoring system (see §§ 60.2710(l) and (x)). Without an EPA-approved performance specification, how can a source possible "certify" a monitoring system? EPA apparently recognizes that the burden of complying with PS-11 is unreasonable for these units. However, the proposed rule has created a second problem of how to certify an instrument without a performance specification.

It is also unreasonable to limit the 30-day rolling average PM CPMS output data (milliamps) to less than the operating limit established during the performance test (§ 60.2730(r)(3)). This requirement would reduce operating flexibility of these boilers to an unacceptable level. It imposes a much tighter operating envelope than even the March 21, 2011, rule, which only required the 30-day rolling average to remain less than the emission standard. At the very least, EPA should allow the operating limit to be increased by the ratio of the allowable PM emission rate to the actual PM emission rate during the performance test.

All of this seems to point out the uncertainty over the use of PM CEMs for this source category. CRWI suggests that until all this uncertainty can be worked out, EPA should remove the PM CEMs requirement. The Agency should conduct field studies on these instruments to determine their real-world practicability. After further evaluation of these systems, the Agency may be able to clear up these uncertainties associated with these

instruments on these sources and create clear methods for certifying and operating these types of instruments.

12. CRWI requests that EPA add a provision allowing existing sources to operate outside their established operating parameter limits during subsequent performance tests.

In the March 21, 2011, final rule, the Agency included a provision that allows new sources to operate outside their established operating parameter limits during subsequent performance tests. The exact language from § 60.2145(c) is included below.

> Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, *except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits*.

(76 Fed. Reg. at 15,754, emphasis added). CRWI supports this idea. Otherwise, the operating limits for each subsequent performance test would ratchet down until the facility could no longer operate. We believe the Agency understands this concept since the response to comments document supports the concept that operating parameters do not apply during subsequent performance tests (see page 1108 of the Response to Comments Document). In the comparable section for existing sources, the phrase allowing the unit to exceed current operating parameters is not included. CRWI believes this is a simple oversight and suggests that the Agency correct this by adding similar language to § 60.2710(c) then the rule is finalized. CRWI also requests the agency to clarify that pre-testing is a normal part of the testing regimen and that the waiver includes it.

13. CRWI supports the clarifying language proposed for the definition of chemical recovery unit and requests that it be adopted.

CRWI supports the conclusions that EPA reached in the March 21, 2011, final rule in adding the definition of chemical recovery unit and in now adding new clarifying language at § 60.2265 (Subpart CCCC) and § 60.2875 (Subpart DDDD) that *"a chemical recovery unit is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart"* (76 FR 80463). CRWI's particular interest in this definition relates to sulfuric acid recovery units, which are included in the definition as a type of chemical recovery unit. CRWI requests that this clarifying language be adopted as proposed in both subparts.