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The Coalition for Responsible Waste Incineration (CRWI) appreciates the opportunity to submit comments on *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Proposed Rule.* 80 Fed. Reg. 3,090 (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. Startup and shutdown provisions;
- 2. The 130 ppmv CO at 3% oxygen standards;
- 3. Consequences of exceeding the PM CPMS OPL; and
- Removal of the word "certify" in the PM CPMS requirements.

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,

Mehni Eken

Melvin E. Keener, Ph.D. Executive Director

cc: CRWI members J. Eddinger, EPA March 9, 2015

Specific issues

1. Startup and shutdown provisions.

EPA is proposing alternate definitions of startup and shutdown to include the concept of useful thermal energy. CRWI supports this alternate definition.

EPA is also proposing to change the list of clean fuels to include all gaseous fuels meeting the "other gas 1" classification and any fuel that can meet the TSM, HCl and mercury emission limits based on fuel analysis. CRWI supports this proposed change.

In addition, EPA is proposing an alternate work practice for engaging electrostatic precipitators within one hour of first firing coal, biomass, heavy oil, or gas 2 fuels. To use this option, the facility must also develop and implement a written startup and shutdown plan based. This plan must be maintained on site and available for inspection. CRWI supports these proposed changes.

CRWI supports the concept of requiring work practices for periods of startup, shutdown, and malfunctions. In this proposed rule, malfunctions are not being reconsidered so we will restrict our comments to startup and shutdown. We agree with the Agency that it is not technically feasible to obtain meaningful measurements during startup and shutdown, making it impossible to set numeric standards during these events. Thus, EPA has a statutory basis under section 112(h) of the Clean Air Act to set work practice standards during these transition periods. 76 Fed. Reg. 15,608, 15,613, March 21, 2011. They also make practical sense.

In this rulemaking, the Agency has structured these work practices around the concept of time. We believe that is not the correct way to define the beginning or ending of these periods. For example, the real issue when starting up a boiler is how to control the thermal expansion of the unit in a manner that protects the equipment from thermal shock yet gets the unit into production as quickly as possible. The startup process for each unit will depend upon a number of things such as the size and diameter of the combustion box, the configuration of the combustion box (straight sides, vs. curved sides), the type of refractory brick lining the combustion box, etc. In most cases the manufacturer of the unit has recommendations on how fast this unit should be warmed or cooled to prevent thermal shock to the system.

Likewise, time is not the issue when deciding when to turn on an electrostatic precipitator – the issue is the oxygen concentration in the stack gas. If the oxygen concentration is too high, the operator could experience a catastrophic failure when engaging the electrostatic precipitator. A decision on when to route stack gases through a baghouse has similar constraints. If the stack gas contains acid gases and the temperature of the stack gas is not above the dew point for those acid

gases, they will condense on the bags. At best this will shorten the life of these bags and at the worst will weaken the bag sufficiently that it will rip during cleaning. For this reason, the work practice for routing the stack gas through the baghouse should be based on stack gas temperature as proposed in the NESHAP for Brick and Structural Clay Products Manufacturing (79 Fed. Reg. 75,622, 75,629, December 18, 2014) instead of time as proposed in this rule.

All of this points to the idea that work practices for startup and shutdown should be site specific and based on the practical limitations of the equipment. It is our opinion that the best way regulate emissions during these periods is to require that the facility develop and implement a startup and shutdown plan. That plan should be maintained at the facility for inspection by the permitting authority. This is consistent with the Agency setting up a site-specific startup and shutdown plan requirement as part of an alternative work practice.

2. The 130 ppmv CO at 3% oxygen standards.

In the final major source boiler rule, the Agency set the minimum carbon monoxide (CO) standard at 130 ppmv (corrected to 3% oxygen). The Agency agreed to reconsider that decision and is now taking comments on that decision.

CRWI supports this decision. As we pointed out in our comments on the first reconsideration proposed rule, EPA's own research points to an even higher threshold value. Below is an extensive review of EPA's and others research on the relationship between CO and emissions of non-dioxin organic hazardous air pollutants. Before starting this discussion, it should be pointed out that all of the early research corrects the CO reading to 7% oxygen.

To understand EPA's reasons for using CO as a surrogate for organic hazardous air pollutants (HAPs), one needs to start with the hazardous waste incinerator regulations that were promulgated in 1981 and the decision to use 100 ppmv (corrected to 7% oxygen)¹ in the 1991 Boiler and Industrial Furnace rule. To understand why the Agency made these decisions, one needs to look at the research that was done to support these two rulemakings.

Combustion Fundamentals

The first step in the combustion process is the immediate thermal decomposition of the organic molecules to form other, usually smaller, compounds that rapidly decompose to form CO. The second step involves the oxidation of CO to CO₂.

Step 1: $C_xH_y + O_2 \rightarrow CO + H_2O$

¹ 100 ppmv corrected to 7% oxygen is equivalent to 130 ppmv corrected to 3% oxygen. 80 Fed. Reg. at 3,096.

Step 2: $CO + O_2 \leftrightarrow CO_2$

The CO to CO_2 step is the slowest because CO is more thermally stable than the other intermediate products of combustion (EPA, 1989). In addition, the CO to CO₂ step is not unidirectional but is in equilibrium. The level of equilibrium between the two compounds depends upon a number of things. For example, if one burns pure carbon with a 10% deficiency of air at 2500 °F, you would get about 5% CO, 18% CO₂ and 77% N₂ (ASME 1974) at equilibrium. This concept is well known and is used when trying to pyrolyze a material to produce a syn gas. If the same material is burned with 10% excess air at 2500 °F, you end up with 48 ppm CO, 19% CO₂, 2% oxygen, and 79% N_2 (ASME 1974) at equilibrium. If you burn a simple organic molecule that is 60% carbon and 40% hydrogen by weight with 10% excess air at 2500 °F, you should expect 22 ppm CO, 7% CO₂, 2% oxygen, and 90% N₂ (ASME 1974) at equilibrium. However, the feed to most combustors is a complex mixture of organic molecules and simple thermodynamic calculations are not very useful except to point out that CO and CO₂ are in equilibrium and that there will always be some CO in exhaust gases. That level of equilibrium will depend upon what is being burned, the oxygen concentration, and the temperature when the measurement is taken.

In the real world, combustion chemistry is much more complicated than the two simple steps shown above. For example, fuel is constantly being fired, so both steps of combustion occur simultaneously. The Agency has looked at two different measures for quantifying the effectiveness of the combustion process for the destruction of organics. One is the combustion efficiency (CE). Combustion efficiency (CE) is defined as

$$CE = \frac{Percent CO2}{Percent CO2 + Percent CO} X 100$$

CE is based on the amount of carbon monoxide that has been converted into carbon dioxide. This equation relies on the second step, recognizing that it is the rate limiting step. For example, EPA's regulations for incineration of PCBs require a CE of 99.9% or better.

The second measure the Agency has used is the destruction removal efficiency (DRE). In 1981, EPA promulgated RCRA regulations for hazardous waste incinerators. This rule focused on the concept of good combustion practice as defined by temperature, residence time, and mixing. These measures were monitored by specifying minimum temperatures, maximum feed rates, and maximum gas flow rates (as an indicator of residence time). In that rule, EPA regulated organic emissions by requiring hazardous waste incinerators to meet a DRE requirement of 99.99% (40 CFR 264.343(a)). Facilities were required to show that they met this requirement every five years during a trial burn. During this test, facilities would select a Principal Hazardous Organic Constituent (POHC), feed a

specified amount of that POHC during the trial burn, measure the amount that was not destroyed (concentration in the exhaust gases), and calculate the DRE. The formula for DRE is as follows.

$$DRE = \frac{POHC In - POHC Out}{POHC In} X 100$$

By selecting a specific POHC and measuring its destruction during a controlled test, the facility could demonstrate that it destroyed at least 99.99% of that organic compound.

In order to show that the facility could meet this requirement continuously, they were required to set a maximum CO concentration in the stack, a maximum feed rate, a minimum combustion temperature, and a maximum stack gas flow rate and required to stay within those limits during normal operations. Thus, measuring and controlling CO (along with temperature and stack gas flow rates) has been used as indicators for good combustion practices since the initial hazardous waste incinerator regulations.

Research to support the 100 ppmv CO (corrected to 7% oxygen) standard promulgated in the 1991 boilers and industrial furnaces rule

In an effort to better understand techniques for monitoring organic destruction, EPA sponsored a number of studies in the 1980's to try to determine the relationship between destruction of organic compounds and various indicators of combustion efficiency. These studies are documented in a number of technical articles, reports to EPA, and the published literature. During this period, EPA sponsored three symposia to share and discuss these results. The first was on April 3-5, 1984. At this symposium, Castaldini, et al., 1984, reported the results from thirteen field emissions tests performed on eight industrial boilers co-fired with conventional fuels and hazardous waste. In general, while the DRE's were greater than 99.99%, an effort to statistically correlate DRE at all levels with CO at all levels was not successful. Adams, et al., 1984, reported similar results (high DRE's with no statistical correlation to CO) for two industrial boilers burning hazardous waste. In this study, the highest CO concentration during one of the test was 242 ppmv. Chehaske and Higgins, 1984, reported on a field test for a package boiler burning a mixture of toluene and chlorinated solvents in which they reported CO emission levels and the DRE's for toluene, trichloroethylene, chlorobenzene, and carbon tetrachloride. A graph of these data would show no strong correlation between DRE and CO concentration for toluene, trichloroethylene, and carbon tetrachloride. However, there is a weak correlation (r^2 =0.69) between CO and DRE for chlorobenzene with DRE decreasing as CO increases. In an abstract of a poster presented at this symposium, Seeker, et al., 1984 reported that CO emissions must increase to a substantial level before DRE's begin to degrade. The abstract did not give any data or define what "substantial level" means.

The second symposium was in 1985. Using data from bench-scale experiments, Staley, 1985, concluded that the correlation between DRE and CO was loose at best and seemed to depend upon which POHC is being burned. His conclusion was that for the hard to burn POHCs, CO levels increased without a decrease in DRE. He also found that DREs were high even when the CO levels ranges from 100 ppm to 300 ppm. Trehholm and Oberacker, 1985, reported on tests from eight full scale hazardous waste incinerators. They found no correlation between penetration² and CO for four POHCs (carbon tetrachloride, toluene, trichloroethylene, and tetrachloroethylene). The data for this study are found in Volume 2 of a five volume EPA report (Trenholm, et al. 1984a). DeRosier, et al., 1985, reported data gathered from a combination of 112 runs under both steady-state and non-steady state conditions for a package boiler burning liquid hazardous waste. Non-steady-state conditions had a minimal impact on DREs and there was no discernible correlation between CO and DRE. The CO values for these tests ranged from 100 ppm up to 600 ppm.

In addition to these symposia, there were a number of reports in the open literature that examined the relationship between CO and organic destruction. Waterland, 1984, found a correlation between penetration and CO and total hydrocarbon (THC). Kramlich, et al., 1984 and LaFond, et al., 1985, found that increases in CO preceded increases in penetration but THC increased as penetration increased. Chang, et al., 1985, found that penetration is correlated with THC and there were no instances of high penetration without high CO. The converse, however, was not true – facilities could have increases in CO without increases in penetration. They concluded that DRE did not statistically correlate well with either CO or THC. Daniels, et al., 1985, showed data from a full scale rotary kiln and in 5 of 6 cases, increased penetration was accompanied with increased CO concentration. In a series of 48 tests on 11 full-scale industrial boilers co-firing hazardous waste, Castaldini, et al. 1985, reported that there was only one case where there was clear evidence of low DRE associated with high CO emissions. Here the CO emissions were in excess of 500 ppm and the DRE was lower than 99.99%. This facility was a watertube boiler firing mainly wood waste. In a pilot-scale test (44 runs), Wolbach and Garman, 1985, concluded that CO levels showed minimum variations over a wide range of DREs.

By analyzing pooled data, Trenholm, et al., 1984b, concluded that there was no absolute level of combustion temperature, residence time, or CO concentration that statistically correlated with 99.99 DRE. This study concluded that the relationship between these parameters and DRE were site-specific and that waste characteristics, waste atomization, and combustion chamber mixing are likely to play equally important roles in achieving high DREs.

² Penetration is the inverse of DRE. Where DRE measures the percentage destroyed, penetration is a measure of what is not destroyed. Both are calculated the same data. In essence, penetration is 100 minus the DRE. For example, if the DRE is 99.99%, then the penetration is 0.01%.

There are also several studies that examined changes in DRE under upset (nonsteady-state) conditions. All of these concluded that there was little change in DRE over large operating ranges or under apparent failure conditions (Lee, et al., 1992; Thurnau, 1990; Staley, 1985; Staley, et al., 1987; Chang, et al., 1988; Staley, et al., 1989). At their Jefferson, AR pilot scale facility, EPA ran 7 tests (Whitworth, et al., 1992) with high CO spikes, reduced pressure drops across a venture scrubber, and decreased scrubber liquid flow to a packed-bed scrubber (simulating things that could cause an automatic waste feed cutoff). None of these perturbations resulted in significant increases in POHC, metals, or HCI emissions.

All of this research work was leading up to the promulgation of CO standards for boilers and industrial furnaces (BIF) that burn hazardous waste. EPA initially proposed this rule on May 6, 1987. By the time the BIF rules were proposed, the focus of the research and the regulation also included examining what was called Products of Incomplete Combustion (PICs). The Agency identified a number of these PICs. Interestingly, most of these compounds are also on the list of organic hazardous air pollutants (Section 112(b) of the Clean Air Act). During the rulemaking process, the Agency took the question of how to monitor the emissions of PICs to a Science Advisory Board panel. In the executive summary of the SAB report (EPA, 1990), the panel made the following statement.

Overall, the Subcommittee believes that the <u>general concept</u> of using CO and THC for the purpose of ensuring that PIC emissions are below levels of public health concern is reasonable. The Subcommittee, however, is concerned about the averaging method, the averaging period, and the concentrations chosen for the CO and THC standard. The Subcommittee understands that these parameters and values were chosen primarily based on informed judgments using the best available data. However, the supporting documentation does not convincingly demonstrate that a CO concentration of 100 ppm is better than 50 ppm or 150 ppm, nor that a one-hour rolling average is better than an eight-hour rolling average for CO.

Underline in original.

In a supplemental proposed rule published on April 27, 1990, the Agency laid out their reasons for selecting 100 ppmv (55 Fed. Reg. 17,862). At 55 Fed. Reg. 17,864, the Agency states

EPA believes that requiring incinerators to operate at high combustion efficiency is a prudent approach to minimize the potential health risk posed by PIC emissions. Given that the stack gas CO is a conventional indicator of combustion efficiency and a conservative indicator of combustion upsets (i.e., poor combustion conditions), today's rule would limit CO emissions to a *de minimis* level that ensures high combustion efficiency and low unburned carbon emissions. In cases where the *de minimis* CO limit is exceeded, the owner or

operator would be required to demonstrate that higher CO levels would not result in higher hydrocarbon emissions.

This allowed facilities to have CO levels greater than the "*de minimis*" levels which EPA defined as 100 ppmv corrected to 7% oxygen (55 Fed. Reg. at 17,881). The Agency gave five reasons why they chose 100 ppmv as the CO standard in this rulemaking.

The proposed Tier I *de minimis* CO limit of 100 ppmv was selected for a number of reasons: (1) it is within the range of CO levels that represent high combustion efficiency, (2) available field test data indicate that PICs are not emitted at levels that pose unacceptable risks when CO does not exceed 100 ppmv; (3) the 100 ppmv level is consistent with the combustion efficiency of 99.9 percent currently required by EPA's PCB incineration regulations codified at 40 CFR 761.70; (4) it is the CO limit proposed for boilers and furnaces burning hazardous waste (see 52 FR 16997 [May 6, 1987], and 54 FR 43718 [October 26, 1989]); and (5) it is the level that the majority of well designed and operated incinerators can meet.

55 Fed. Reg. at 17,883. The Agency also proposed an alternative total hydrocarbon standard (THC) for those units that could not meet the 100 ppmv standard on a routine basis. The alternative standard restricted THC to 20 ppmv but did not set a limit on CO. Footnote 69 of the preamble (55 Fed. Reg. at 17,884) states that hazardous waste incinerators have operated at CO levels exceeding 13,000 ppmv while still achieving 99.99% "distributed [sic] and removal efficiency." [We believe this is a typographical error and was meant to say "destruction removal efficiency."]

The final rule (56 Fed. Reg. 7,134, February 21, 1991) promulgated the CO and THC alternative standard as proposed.

Relevance of EPA studies on hazardous waste combustion to fossil fuel combustion.

In a well written review of the current knowledge on emissions from hazardous waste incinerators, Dempsey and Oppelt, 1993, concluded that there were no differences in the organic emissions from burning HW or burning fossil fuels (based on data from draft final report to EPA (Castaldini, 1986)). Even though there was no statistical correlation between CO and PIC emissions, it was found that when CO was low, PICs were low. On the other hand, when CO was high, PICs may or may not be high. This is the same conclusion that was reached in the SAB report (EPA, 1990).

All of this is illustrated by data comparing benzene emissions to CO concentration (data from Graham, J.L., D.L. Hall, and B. Dellinger, "Laboratory Investigations of Thermal Degradation of Mixtures of Hazardous Organic Compounds," Envi. Sci. Technol., Vol. 20, No. 7, pp 703-710, July 1988, cited in "Guidance on PIC Controls for Hazardous Waste Incinerators," Volume 5 of the Hazardous Waste Incineration

Series, EPA/530-SW-90-040, April 1990). This graph (Appendix A) shows that below about 400 ppmv CO, the benzene concentrations are essentially flat and at very low concentrations. Above these values, the benzene concentrations may be higher. EPA concluded from this information that CO was a conservative indicator for organics – an important technical policy decision because it meant that below a certain level of CO, one can be assured that organic destruction is adequate. Complete destruction may occur above that level but it is not guaranteed. To add an additional level of safety to this conservative estimate, the Agency chose to set the CO standard at 100 ppmv. From the data, it can be seen that the Agency could just have well selected 200 ppmv or any value up to about 400 ppmv.

Use of CO as a surrogate for organic HAPs in MACT rules

Most of the research on combustion was curtailed after the BIF rule was promulgated. In the first hazardous waste combustor MACT rule, the Agency reiterated the use of CO as a surrogate for organic hazardous air pollutants and again chose 100 ppmv (corrected to 7% oxygen) as a conservative indicator of combustion conditions. In its Technical Support Document (EPA 1999) for the rule, the Agency explained their choice as follows.

Standards for CO and HC are used as surrogates for the control of non-PCDD/PCDF organic HAPs. CO and HC are widely used and accepted indicators of combustion conditions. Current RCRA regulations for HWCs limit CO and HC to control organic HAPs. In addition, EPA standards for other combustor types, including municipal waste, medical waste, sewage sludge, and fossil fuel combustors, limit CO and HC to control organic HAPs.

Technically, CO/HC are well-demonstrated surrogate indicators for maintaining combustion efficiency, ensuring overall reaction completeness, and limiting the formation and emissions of PICs:

 CO -- CO is a conservative indicator of deteriorating combustion conditions. In general, when CO is low, waste destruction is high and PIC (and HC) emissions are low. When CO increases, increased frequency of lower DRE and higher PICs (HC) has been observed in full- and pilot-scale testing from individual incinerators (e.g., Trenholm et al., 1984; Waterland, 1983; Kramlich et al., 1984; LaFond et al., 1985; Chang et al., 1987). However, high DRE and low PIC (HC) emissions can be achieved at high CO levels, as demonstrated in rapid combustion gas quench design incinerators, where it has been suggested that insufficient residence time is available for CO to fully oxidize (waste organics breakdown to CO; CO oxidation to CO2 is the slowest (and last) step in the organic waste combustion process). Thus, an alternative of meeting the HC standard rather than the CO standard is provided in the final rule.

 HC -- HC is a direct indicator of inefficient combustion and PIC emissions. The relationship between HC and certain PICs may not be as strong in cases where the HC is comprised mostly of lighter organic non-HAP compounds such as methane. However, there still remains a direct relationship, as demonstrated in tests including those referenced for HC.

Thus, a CO standard or a THC standard was considered adequate indicators of organic destruction. Also, note that a peer-reviewed evaluation as part of the BIF Rule concluded that CO and HC were appropriate surrogates for the control of organic PICs. Commenters suggest that CO and HC are not appropriate as surrogates for organic HAPs because, as discussed in EPA-sponsored work (EER, 1994), across different facilities, there is no apparent relationship between CO or HC at any level and any organic HAP. This is due to factors including:

- Correlations between emissions characteristics of different facilities are rarely seen due to differences in facility operations (waste types, compositions, residence times, APCD types, combustion temperatures, etc.) and measurement methods.
- The data are from trial burn conditions where, in most cases, efficient combustion is taking place (i.e., DRE is high and PIC and CO/HC levels are low). At good combustion conditions indicated by low CO emissions levels, PIC emissions are generally due to "random" failure modes. Thus, no correlation between CO and PIC levels is expected (Kramlich, 1990). The data are not from "failure mode" or "upset" conditions due to time-steady "gross" combustion failures, where CO/HC are clearly directly related to organic HAP emissions.

In the MACT program, EPA is charged with the responsibility to develop emission standards that reflect the maximum degree of reduction in emissions of hazardous air pollutants being achieved by the best performers. Based on EPA studies from the 1980's and 1990's, all facilities emitting less than 400 ppmv are best performers. There is no reason to distinguish between them. EPA understands this concept because in the boiler and CISWI ICR, the Agency states "Agency research suggests that at CO levels below 100 ppm, CO concentration is no longer an accurate indicator of organic HAP control." (ICR No. 2286.11, OMB Control No. 2060-0616).

CRWI asserts that requiring a combustor to operate below a specified threshold will not result in any additional destruction of organics because there is little or none left to destroy. Thus, EPA is not justified in lowering the CO level to lowest observed level. As a non-HAP surrogate, CO must be judged based on the relationship it has to the regulated HAP. According to EPA research, any combustor with CO emissions below 400 ppmv, has destroyed virtually all organics and should all be considered as top performers. Therefore, setting a CO standard below approximately 400 ppmv is unnecessary and unlawful.

In summary, EPA choose 100 ppmv (corrected to 7% oxygen) as a standard for hazardous waste combustors because it was a conservative indicator of combustion performance and organic destruction. It did not set the standard any lower because that would not have resulted in any additional protection of human health or the environment. Given that the Midwest Research Institute report (1986) concluded there was no difference between the organic emissions from burning hazardous waste or fossil fuels, we see no scientifically supportable reason to set a CO standard below 100 ppmv (corrected to 7% oxygen) for any combustion MACT rule. To do so would simply increase the cost without any benefits to the environment.

3. Consequences of exceeding the PM CPMS OPL.

Facilities are required to set a site-specific operating limit (OPL) for their PM CEMs during each performance test. Any exceedance of the OPL requires inspection and corrective action (if necessary) within 48 hours and a new performance test within 30 calendar days. The fifth and subsequent exceedances are considered as violations.

Petitioners pointed out that the OPL could be well below the emissions limit and may not be a violation if exceeded, no matter how many times it is exceeded. They also asked that the scaling factor be moved to 100%. The Agency believes the 30-day averaging period and the 75% scaling factor are appropriate and are not changing them but are taking comments on this decision.

CRWI has two concerns about this decision. First, this policy does not make sense when extrapolation is limited to 75% and the facility exceeds the OPL by a small amount. For example, a facility could set their OPL based on a stack test reading that is 50% of the standard. Assume for this example that the OPL is 12 mA. If the facility has 5 different 30-day average readings of 13 mA, it would be presumed that they have violated the PM standard. Since a 12 mA is 50% of the standard, it is highly unlikely that a 13 mA reading would exceed the standard. It seems that automatically setting the fifth exceedance of a site-specific OPL as a violation of the emissions standard without regard to whether the facility has actually violated that standard is a terrible precedent to set and is wrong. In addition, we believe that the choice of the fifth exceedance becoming a violation is arbitrary. We cannot find where the agency explained why the fifth time was better than the tenth time or even the third time. The Agency needs to explain why they make the choices they make and where possible, base those decisions on data.

We believe the Agency has already used a superior method to address this issue. In the Portland Cement rule (preamble language at 78 Fed. Reg. at 10,019, February 12, 2013), the Agency states that it is "a rebuttable presumption that four such exceedances in a calendar year showed a violation of the emission standard itself." The regulatory language in 63.1350)b)(1)(iv) states: "(iv) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this

subpart." 78 Fed. Reg. at 10,039. We believe this to be a superior solution in that it allows the facility to explain why the fifth exceedance of the site-specific OPL is not a violation but keeps the requirement on the facility to make that explanation.

4. Removal of the word "certify" in the PM CPMS requirements.

EPA is proposing to remove the word "certify" from the PM CPMS requirement in 63.7525(b) and (b)(1) because there is no certification procedure for a PM CPMS. This was suggested by a number of stakeholders and CRWI supports that change.

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