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EPA West (Air Docket)
Environmental Protection Agency
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1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2010-0895

The Coalition for Responsible Waste Incineration (CRWI) appreciates the opportunity to submit comments on *National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production; Proposed Rule*. 76 FR 72,508 (November 23, 2011). CRWI is a trade association comprised of 23 members. CRWI is submitting comments on two specific issues (attached).

Thank you for the opportunity to comment on this proposed rule. If you have any questions, please contact me at (703-431-7343 or mel@crwi.org).

Sincerely yours,

Melvin E. Keener, Ph.D.
Executive Director

cc: CRWI members
C. Chin – EPA

Specific comments

1. EPA should modify the affirmative defense provisions so that it is a “rebuttable presumption.”

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 by arbitrarily labeling malfunctions as an affirmative defense implies that the facility is guilty until proven innocent. The last sentence in 40 CFR 22.24(a) states that the “respondent has the burdens of presentation and persuasion for any affirmative defenses.” The first sentence in this section states that EPA has the burden of presentation and persuasion. We are concerned that by defining something an affirmative defense even before it has been established to be a deviation 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 the facility did everything in their power to minimize emissions during these events, 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.

2. CRWI suggests that EPA clarify its affirmative defense provisions.

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 came 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 instance, the requirements in §§ 63.1627 and 63.1662 are impossible to meet due to the use of ambiguous terms such as “careful,” “proper,” or “better.” Until these are defined, it is impossible to determine whether these criteria have been met. EPA should also 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.” 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.

It should also be noted that it is impossible to eliminate the causes for certain malfunctions (e.g., lightning strikes). Finally, faxing is an obsolete technology. EPA should allow notification by e-mail or other electronic means. CRWI suggests that EPA consider making the following modifications to the regulatory language in §§ 63.1627 and 63.1662 to address the concerns mentioned above and to make an affirmative defense a more useful tool.

To correct these problems, CRWI suggests the following changes be made to in §§ 63.1627 and 63.1662 (using ~~strikeout~~ to show text deleted and underline to show text added).

§ 63.1627 What is an affirmative defense for exceedence of an emissions limit during malfunction?

In response to an action to enforce the standards set forth in paragraph § 63.1623 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 63.2. Appropriate penalties may be assessed, however, if the respondent fails to meet its burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Affirmative Defense.* To establish the affirmative defense in any action to enforce such a limit, you must 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 any 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 monitoring and 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 is 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.*

- (1) If you experience an exceedance of the facilities' emission limit(s) during a malfunction, you must notify the EPA Administrator by telephone, ~~or~~ facsimile (Fax) transmission, or electronic means as soon as possible, but no later than two (2) business days after the initial occurrence of the malfunction, if you wish to avail yourself of an affirmative defense to civil penalties for that malfunction.
- (2) You must also submit a written report to the EPA Administrator, within 45 days of the initial occurrence of the exceedance of the standard in § 63.1623, to demonstrate, with all necessary supporting documentation, that you have met the requirements set forth in paragraph (a) of this section.
- (3) You 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, you are subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedances.

§ 63.1662 Affirmative defense for exceedance of emission limit during malfunction.

In response to an action to enforce the standards set forth in § 63.1652 through § 63.1654 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 63.2. 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 any 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~~missions monitoring and 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~~ctions in response to the excess emissions were documented by properly signed, ~~contemporaneous~~ operating logs; and
 - (8) ~~At all times, t~~he affected source 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 is 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 affected source experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone, ~~or~~ facsimile (FAX) transmission, or electronic means 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 § 63.1652 through § 63.1654 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.