



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Timothy Hunt
Senior Director, Air Quality Programs
American Forest & Paper Association
1111 19th St., N.W.
Washington DC 20036

Dear Mr. Hunt:

This letter is in response to your request for an Agency determination that multi-cyclone collectors on wood-fired boilers (or other such combustion devices) constitute "inherent process equipment" as defined in the Compliance Assurance Monitoring (CAM) Rule (40 CFR Section 64.1) for the purpose of determining the compliance requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63, Subpart DDDDD). Based on a review of the information you provided, it is not feasible or appropriate to provide a broad determination that all multi-cyclone collectors on a wood-fired boilers (or other such combustion devices) constitute "inherent process equipment" rather than "control devices." Any such claim would need to be addressed on a case-by-case basis with the delegated agency for implementing Subpart DDDDD.

Your request argues that a multi-cyclone collector on a wood-fired boiler (or other such combustion device) is not a "control device" for the purpose of Subpart DDDDD because the Compliance Assurance Monitoring (CAM) Rule offers an exclusion under the definition of "control device" if the multi-cyclone is "inherent process equipment." Specifically, you claim that multi-cyclone collectors serve as safety equipment rather than as pollution "control devices." In addition, your request notes that the *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources* (referred to as AP-42) suggests that boilers with mechanical collectors, such as multi-cyclones, with re-injection are designated as being uncontrolled.¹

Based on the information provided, we are unable to conclude categorically that multi-cyclones always qualify as "inherent process equipment" under the CAM Rule. Inherent

¹ AP 42, Fifth Edition, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Chapter 1, Table 1.6-1, Emission Factors for PM from Wood Residue Combustion., September 2003.

process equipment is defined as “equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations.” 40 CFR Section 64.1. In addition, this definition provides that “[e]quipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emissions limitation or standard is not inherent process equipment.” Id. Although you have provided information to indicate that wood-fired boilers install multi-cyclones for reasons of safety, proper process operation, and recovery of fuel that is not fully combusted, this information does not indicate that multi-cyclone are not also installed for purposes of destroying or removing air pollutants prior to discharge to the atmosphere. The safety objectives of the multi-clone are achieved by preventing the release of hot particulate matter to the atmosphere and the ground below. Furthermore, we are unable to determine as a general matter whether higher efficiency multi-cyclones are needed in order for any or all wood-fired boilers to comply with applicable emissions limitations.

The Agency generally recognizes multi-cyclones to be equipment that is used to destroy or remove air pollutants prior to discharge to the atmosphere. The EPA AP-42 document that you reference in your request specifically states that the use of multi-cyclones provides particulate control for many wood-fired boilers.² In addition, the EPA Emission Inventory Improvement Program (EIIP) document titled “Preferred and Alternative Methods for Estimating Air Emissions from Boilers” identifies mechanical collectors, such as multi-cyclones, as control devices able to obtain PM control efficiencies in the range of 65 to 95 percent.³ Finally, the EPA Clean Air Technology Center has developed an air pollution control technology fact sheet for cyclones, including multi-cyclones, that specifically notes that wood waste fired boilers commonly use multi-cyclones for PM control.⁴

Although we can not conclude categorically that multi-cyclones always qualify as “inherent process equipment” under the CAM Rule, and in fact multi-cyclones are generally recognized by the Agency as control devices, there may be site-specific cases in which a multi-cyclone may serve as “inherent process equipment” rather than as a “control device.” Requests for site-specific determinations should be submitted in writing to the delegated agency responsible for implementing Subpart DDDDD. However, until such a site-specific determination is issued by the delegated agency, all wood-fired boilers operated exclusively with multi-cyclone collectors will be subject to the opacity operating limits, monitoring requirements, and recordkeeping and reporting set forth in Subpart DDDDD.

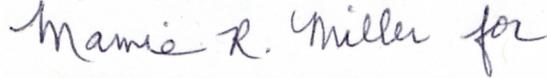
² AP 42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Chapter 1, Section 1.6.4, page 1.6-3, September 2003.

³ Preferred and Alternative Methods for Estimating Air Emissions from Boilers, Volume 2, Chapter 2, Table 2.2.2, Boiler Controls, January 2001

⁴ Air Pollution Control Technology Fact Sheet: Cyclones, EPA-452/F-03-005

This response has been coordinated with the Office of Air Quality Planning and Standards and the Office of General Counsel. If you have any questions concerning this determination, please contact Gregory Fried at (202) 564-7016.

Very Truly Yours,



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