

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2002-0051; FRL-]

RIN 2060-AJ78

**National Emission Standards for Hazardous Air Pollutants From
the Portland Cement Manufacturing Industry: Notice of
Reconsideration**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of reconsideration

SUMMARY: EPA is announcing that it is reconsidering the new source standards for mercury and for total hydrocarbons (THC) which are part of the National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry, published on [INSERT DATE OF PUBLICATION OF THIS NOTICE IN THE FEDERAL REGISTER].

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2002-0051. All documents in the docket are listed on the www.regulations.gov web site.

Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly

available docket materials are available either electronically through www.regulations.gov or in hard copy at the EPA Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202)566-1742.

FOR FURTHER INFORMATION CONTACT: Mr. Keith Barnett, EPA, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Metals and Minerals Group (D243-02), Research Triangle Park, NC 27711; telephone number (919) 541-5605; facsimile number (919) 541-3207; e-mail address barnett.keith@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me? Entities potentially affected by this action are those that manufacture portland cement. Regulated categories and entities include:

Table 1. Regulated Entities Table

| Category | NAICS ¹ | Examples of regulated entities |
|---------------------|--------------------|--|
| Industry | 32731 | Owners or operators of portland cement manufacturing plants. |
| State | | None. |
| Tribal associations | | None. |

| Category | NAICS ¹ | Examples of regulated entities |
|------------------|--------------------|--------------------------------|
| Federal agencies | None | None. |

¹ North American Industry Classification System

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that may potentially be regulated by this action. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria in 40 CFR 63.1340 of the rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of today's notice will also be available through the WWW. Following the Administrator's signature, a copy of this action will be posted on EPA's Technology Transfer Network (TTN) policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg/>. The TTN at EPA's web site provides information and technology exchange in various areas of air pollution control.

Reconsideration of the New Source Mercury Standard

On December 2, 2005, EPA proposed amendments to the National

Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry(70 FR 72330). Among other things, we proposed to amend the emission standards for mercury, hydrogen chloride, and total hydrocarbons. We are publishing the final amendments in another part of today's Federal Register. The final amendments contain a mercury new source standard of 41 µg/dscm for cement kilns and kilns/in-line raw mills, or an alternative standard requiring application of a limestone wet scrubber with a liquid-to-gas ratio of 30 gallons per thousand actual cubic feet per minute of exhaust gas with a site-specific numeric limit to be established based on that scrubber's performance.

In this notice, we are ourselves granting reconsideration of this new source standard for mercury. We are doing so because we believe that reconsideration is compelled by section 307 (d) (7) (B) of the Act, since the information on which the standard is based arose after the period for public comment and (obviously) is of central relevance to the rulemaking. In addition, as explained in the following paragraphs, we believe that there remain important technical issues which we hope to better resolve during the reconsideration process.

In developing the final amendments, we noted that there are at least five cement kilns that have limestone (wet) scrubbers for control of SO₂. As explained more fully in the preamble to the final amendments, based on our experience with utility boilers, as well as on general engineering principles, we expect that the scrubbers on cement kilns remove mercury, although the amount of removal is uncertain. Thus, assuming reductions occur, which we believe to be the case based on the limited information in the record, a portland cement kiln equipped with a scrubber would have the best performance for mercury over time, since variability in mercury emissions attributable to raw material and fuel inputs would be controlled in part.

We have mercury test data from two portland cement kilns equipped with wet scrubbers, measured exclusively at the scrubber outlet. These data range from 0.42 to 30 µg/dscm, which fall within the range of test data from all portland cement kilns (those with wet scrubbers and those without wet scrubbers). They are among the lowest end-of-stack mercury data in our data base (although not the lowest). This could indicate that some removal mechanism is involved. Variability of mercury emissions at the scrubber-equipped kilns for which we have multiple test data differs by orders of magnitude. See Summary of Mercury Test data in Docket EPA-HQ-OAR-2002-0051.

As noted above, we have no test data for mercury measured at the scrubber inlet. As a result, we cannot, on the basis of the current data, determine with absolute certainty if the outlet mercury emissions from the wet scrubber equipped kilns are a result of mercury removal by the scrubber, or simply reflect the amounts of mercury in the raw materials. Nonetheless, for the reasons described in the preamble to the final amendments, we believe, based on the limited information in the record, that it is reasonable to find that wet scrubbers remove some mercury from cement kiln emissions.

In the final amendments being published concurrently with this notice, we developed an emissions limit of 41 $\mu\text{g}/\text{dscm}$ (corrected to 7 percent oxygen) using the following rationale. First, we limited the analysis to data from wet scrubber equipped kilns regardless of their actual outlet emissions levels. Second, we ranked all the wet scrubber mercury emissions with the raw mill off -- a recurring mode of operation for cement kilns reflecting the maximum variability a properly designed and operated scrubber-equipped kiln would experience. We then took the mean raw mill off value for mercury emissions from the best performing wet-scrubber equipped cement kiln in our (limited) data base, and multiplied it by a variability factor which accounts for normal, unavoidable variation in mercury emissions. This

variability factor is the standard deviation of the data multiplied by 2.326 to produce the 99th confidence interval. We looked to all of the data we have from cement kilns equipped with wet scrubbers, rather than just to data from the single lowest emitting kiln, because there are too few data points from the lowest emitting kiln to properly estimate its variability. The result of this analysis is a new source floor of 41 µg/dscm, which we then adopted as the new source standard. This standard must be met continuously (raw mill on and raw mill off).

Because of the limited performance data characterizing performance of the lowest-emitting scrubber-equipped kiln, we also developed an alternative new source mercury floor. The best performing kiln is equipped with a wet scrubber. Therefore, if a new source installs a properly designed and operated wet scrubber, and is unable to achieve the 41 ug/dscm standard, then whatever emission level the source achieves (over time, considering all normal sources of variability) would become the floor for that source. Based on the design of the wet scrubbers that were the basis of the new source floor, this would be a packed bed or spray tower wet scrubber with a minimum liquid-to-gas ratio of 30 gallons per thousand actual cubic feet of exhaust gas. We also adopted this

alternative floor as an alternative new source emission standard for mercury.

As noted above, we are ourselves granting reconsideration of the new source mercury standard adopted in the final amendments, both due to substantive issues relating to performance of wet scrubbers and because information about their performance in this industry has not been available for public comment. As part of the reconsideration process, we are initiating a test program to simultaneously measure mercury emissions at the inlet and the outlet of wet scrubbers currently installed on cement kilns. By doing so, we expect to be able to better resolve the ultimate issues we are reconsidering: the appropriateness of the new source standard (and floor), and whether wet scrubbers remove mercury from portland cement kiln emissions, and if so, to what extent.

We intend to complete the reconsideration process by [INSERT DATE ONE YEAR FROM THE DATE OF PUBLICATION OF THE FINAL RULE AMANDMENTS IN THE FEDERAL REGISTER]. When data from the testing process are in hand, we will issue another Federal Register notice describing the data and the testing process by which the data were obtained, and seek public comment on those data and on the testing process. As part of that notice, we may also propose to amend the new source standard.

At the present time, we are also soliciting any data that could potentially be relevant in this reconsideration process. Given the expedited schedule for reconsideration of the new source mercury standard, we are asking that the data be submitted to EPA as soon as possible, and no later than [INSERT DATE 60 DAYS FROM DATE OF FEDERAL REGISTER NOTICE], so that we can properly consider it prior to publishing another notice in the Federal Register. The data should be submitted to the person and address in the FOR FURTHER INFORMATION CONTACT section.

RECONSIDERATION OF EXISTING AND NEW SOURCE STANDARD BANNING CEMENT KILN USE OF CERTAIN MERCURY-CONTAINING FLY ASH

As part of the final rule, EPA adopted a standard for both new and existing sources banning the use of utility boiler fly ash in cement kilns where the fly ash mercury content has been increased through the use of activated carbon or any other sorbent unless the facility can demonstrate that the use of that fly ash will not result in an increase in mercury emissions over baseline emissions (i.e. emissions not using the mercury increased fly ash). See section IV.A.2 to the preamble to the final rule. EPA took this action because of the potential for significant increases in mercury emissions from cement kilns, and because the positive energy and non-air health and environmental impacts from current

recycling of utility fly ash as feed material in cement kilns would not be significantly impeded. Although EPA alluded to the possibility of this type of standard at proposal (70 FR 72334), we nonetheless believe it appropriate to reconsider the issue to provide further opportunity for comment on both the standard and the underlying rationale, because we do not feel we have the level of analysis we would like to support a beyond-the-floor determination. We request that all comments be submitted to EPA no later than [INSERT DATE 60 DAYS FROM DATE OF FEDERAL REGISTER].

RECONSIDERATION OF NEW SOURCE STANDARD FOR THC

As part of the final amendments, EPA also issued a standard for new cement kilns of 20 ppmv (corrected to 7 percent oxygen) or 98 percent reduction in THC emissions from uncontrolled levels. This standard is based upon the performance of a single cement kiln which has installed a regenerative thermal oxidizer (RTO) in series with a wet scrubber (which precedes the RTO and enables its performance by preventing plugging, fouling, and corrosion of the device). We are ourselves granting reconsideration of this standard in this notice. We are doing so because we believe that reconsideration is compelled by section 307 (d) (7) (B) of the Act, since the information on which the standard is based

arose after the period for public comment and is of central relevance to the rulemaking.

We are specifically requesting comment on the new source standard itself, as well as on the information upon which the standard is based. We also are soliciting data on THC emission levels from preheater/precalciner cement kilns. We further solicit comment as to whether the promulgated standard is appropriate for reconstructed new sources, should any be contemplated (it is our understanding that all new source cement kilns will be newly constructed). We request that all comment be submitted within [INSERT DATE 60 DAYS FROM DATE OF FEDERAL REGISTER NOTICE]. EPA will evaluate all data and comments received, and determine whether in light of those data and comment it is appropriate to propose to amend the promulgated standard. If EPA does propose to amend the standard, EPA would take final action on the proposal within the same one year period that we are allotting for completion of the reconsideration process for the new source mercury standard.

How can I get copies of the final amendments and other related information?

EPA has established the official public docket for this rulemaking under docket ID No. EPA-HQ-OAR-2002-0051.

Information on how to access the docket is presented above in

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the ADDRESSES section. In addition, information may be
obtained from the webpage for the rulemaking at:

<http://www.epa.gov/ttn/atw/pcem/pcempg.html>.

Dated:

Stephen L. Johnson
Administrator.