

2.3 Related Federal Rules

Currently the Federal air emissions regulations that cover this industry are the New Source Performance Standards for Lime Manufacturing Plants (40 CFR Part 60, Subpart HH) and Non-Metallic Minerals Processing Plants (40 CFR Part 60, Subpart OOO). Some facilities have been regulated by State air emission regulations as part of a State Implementation Plan.

7. Overview of Proposal Under Consideration

3.1 Potential Requirements and Guidelines of the Proposal Considered by the Panel

Under the predecisional draft rule proposal EPA presented to the Panel, the Agency would propose MACT floors for new and existing lime kilns/coolers and limestone and lime kiln dust materials processing operations. For existing kilns/coolers, the PM emission limit would be 0.12 pounds PM/ton feed material; for new kilns/coolers, the PM emission limit would be 0.10 pounds PM/ton feed. The HCl emission limitation for both new and existing kilns equipped with baghouses or electrostatic precipitators would be a work practice standard: EPA would require that the PM control device inlet gas temperature be below 400. F. Opacity and PM emission limits would apply to the various materials processing operations (*e.g.*, crushers, mills, storage bins, conveyor transfer points, etc.).

The proposal would require performance testing (*i.e.*, testing to determine compliance with the emission standards) for PM initially and every 5 years thereafter, and continuous and/or periodic monitoring of the PM control devices to ensure compliance with the PM and HCl emission limitations. Sources wishing to claim area source status would need to measure HCl emissions using either EPA Method 320 or 321. Further details of the predecisional draft of the rule can be found in Attachment 1 of the summary of the potential SER outreach meeting of December 20, 2001, attached hereto as Appendix B.

3.2 Options Presented to the Panel

Prior to the convening of the SBAR Panel, one SER developed and presented to EPA the following issues for the Panel's consideration:

- Possible exemption of a hydrogen chloride (HCl) standard, under authority of Clean Air Act Section 112(d)(4), pending the outcome of a risk assessment being conducted by the NLA.
- A different approach than the one EPA planned to propose for determining the MACT floor for PM, based upon the highest actual emission level from a well-designed and operated source, using the MACT control technology in use by the best 12 percent of sources for which EPA has data.
- Possible use of a bubble approach.

- Possible exemption of limestone materials processing operations (MPOs) in the quarry.
- Possible use of continuous opacity monitors, as an alternative to bag leak detectors and the monitoring of PM control device operating parameters - since some kilns already have COMs in place.
- Possible use of an alternative method, recently developed under the ASTM consensus process, for measuring HCl (for area source determinations).

In addition, EPA developed a number of provisions in developing the pre-decisional draft proposed rule for Panel review that, if adopted in the final rule, will reduce the rule's burden on small entities:

- Lime manufacturing operations at beet sugar plants, of which three are small businesses, would not be subject to the rule.
- Lime hydration units and facilities would not be subject to the rule.
- Materials handling operations for the lime product would not be subject to the rule.
- The emission limitations selected are all based on the MACT *floor*, as opposed to more costly beyond the MACT floor options that EPA considered.
- Compliance demonstrations for materials processing operations would be conducted monthly, rather than on a daily basis.
- The minimum performance testing frequency (every 5 years), monitoring, recordkeeping, and reporting requirements specified in the general provisions (40 CFR part 63, subpart A) would be required.
- The rule would not apply to area source lime plants.
- The rule would not require PM continuous emission monitors (CEMS), but EPA will seek comment on their use.

4. Applicable Small Entity Definitions

There are approximately 39 lime manufacturing companies operating about 80 lime plants in the U.S. that would potentially be subject to the proposed rule. (These numbers do not include lime plants at beet sugar facilities which would not be subject to the rule.) Of these 39 companies, 12 are classified as small businesses according to the SBA definition and would potentially be subject to the rule. These small businesses operate 14 of the 80 facilities. Small businesses within the lime industry are defined by SBA as any company with a total employment of 500 or less.

5. Small Entities That May Be Subject to this Regulation

Some of the 12 small businesses potentially subject to the rule will likely be exempt from the rule because they are not major sources of HAP. EPA estimates that 70 percent of all lime plants are major sources (i.e., 30 percent would be area sources and not subject to the rule). Note

that there are a few lime small businesses (not included in the 12 that are potentially subject to the rule) that would not be subject to the rule, because they do not produce lime in a kiln, *e.g.*, they are depot (storage) facilities and/or produce hydrated lime from lime imported from another lime plant.

6. Summary of Small Entity Outreach

EPA staff have communicated with a number of small firms. Some of these communications were documented in the formal notification for this Panel. An outreach meeting with potential small entity representatives was held on December 20, 2001, in Washington, D.C. A summary of this meeting, including meeting materials, is found in the Convening Document and Appendix B. During this meeting, the planned requirements of the proposed rule were presented, and comments were solicited.

In addition, EPA staff have communicated with, and provided information to, the National Lime Association from time-to-time since the lime NESHAP development project began in 1995. The NLA represents commercial lime production companies, both small and large. (7 out of the 12 small businesses are members of NLA.) Communication with the NLA has occurred via formal meetings in person, formal teleconferences, informal telephone calls, electronic mail exchanges, and formal correspondence.

7. List of Small Entity Representatives

Table 1 presents the list of Small Entity Representatives solicited to advise the Small Business Advocacy Review Panel convened for this rule. This list was developed in consultation with SBA. It should be noted that of the companies in Table 1, Mercer Lime and Huron Lime are not members of the NLA. (There are 2 other non-NLA member small businesses potentially affected by the rule, but these companies declined to participate on the Panel.)

TABLE 1. LIST OF SMALL ENTITY REPRESENTATIVES

Edward Soloman III President, Mercer Lime Company	(412) 220 - 0316 Slippery Rock, PA
Anthony J. Paris President, Huron Lime Company	(419) 433-2141 Huron, OH
Arline Seeger Executive Director, National Lime	703-243-5463 Arlington, Virginia

Association	
Fred Nast CEO, Western Lime Corporation	262-334-3005 West Bend, WI
Mr. Timothy W. Byrne CEO, United States Lime & Minerals, Inc.	(972) 991-8400 Dallas, TX
Frank McCarthy President, Linwood Mining and Minerals Corporation	(563) 359-8251 Davenport, IA
Dana Stone VP - Operations, CLM Corporation	(218) 722-3981 Duluth, MN
Oscar Robinson General Partner Austin White Lime Company	(512) 255-3646 Austin, TX

8. Summary of Comments from Small Entity Representatives

This section summarizes comments received during the Panel. (EPA received an initial set of comments from potential SERs during the pre-Panel phase, which are attached to this Report in Appendix B.) During the Panel, SERs provided comments (in the form of a detailed presentation, around which there was extensive discussion) during a face-to-face outreach meeting (held February 19, 2002). Subsequently, the NLA, Huron Lime Company, and Mercer Lime and Stone provided supplemental written comments on March 5, 2002. The points offered at the SER outreach meeting are summarized below; the entire meeting summary, with a copy of the SER presentations, can be found in Appendix C. The comments filed March 5, 2002, are found in Appendix D. It should be noted that most of the March 5, 2002, comments repeat the main themes discussed in the comments received previously, and so the discussion at 8.2 below includes a summary only of new issues and information provided.

8.1 Summary of Comments Presented at SER Outreach Meeting (February 19, 2002)

Removal of the HCl Standard Via Section 112(d)(4) of Clean Air Act

The SERs presented an overview of the risk assessment the NLA commissioned to determine whether there would be an ample margin of safety with respect to HCl levels in the atmosphere without an emission standard for HCl. The study concluded that an ample margin of safety exists without a standard for HCl. Section 112(d)(4) of Clean Air Act would allow EPA to forego setting an emission standard for HCl if this is the case.

Economic Impact of the Standard on Small Businesses

The SERs presented their comments on EPA's draft economic impacts assessment (EIA). The main point the SERs conveyed is that, because the industry is subject to intense competition (due to declining markets, pressure from non-lime product substitutes, foreign producers, and potentially unregulated captive lime producers that may start to sell commercially), and there is an excess of capacity, the costs of the rule cannot be passed through to customers. EPA's EIA model should reflect this. Many of the SERs presented additional comments, with emphasis on how the pre-decisional draft rule would impact individual companies. Their primary comment was that the pre-decisional draft rule would disproportionately affect small businesses because lime prices for SERs are generally lower than the industry average, economies of scale will make it easier for large companies to absorb the costs of this rule than small companies, and it will be difficult or impossible for small businesses to obtain capital for new APCDs. The SERs also discussed the low cost and high availability of Chinese magnesia as a substitute for lime in the steel production process. A number of SERs stated they have not been able to raise prices in the past few years, and that some of their customers have instead requested that they lower their price for lime. They all agreed that once a customer is lost due to a price disadvantage (or any other reason), it is difficult to get that customer back.

Technical Issues

The SERs provided comments on the following technical issues via a detailed slide presentation. That presentation is included in Appendix D to this report. Highlights of comments provided outside the formal presentation are as follows.

HCl Work-Practice Standard

SERs believe EPA has overestimated the HCl emissions reductions from lowering APCD inlet temperature. SERs indicated that replacing wet scrubbers to meet the PM limit increases HCl emissions. They also indicated that complying with a 400 degree inlet temperature limit over a 3 hour averaging period would require them to operate at a 350 degree APCD inlet temperature (in order to account for temperature variability) which would diminish ESP efficiency and may damage dry PM control devices. They also indicated that a larger ID fan would be needed to handle the increased air mass flow associated with water injection or air tempering that may be used to reduce temperature and that this would increase costs beyond EPA's current estimate.

Materials-Handling Operations(MHO) in Quarries

The SERs do not believe that the MHOs in limestone quarries should be regulated. They suggest regulation of limestone MHOs begin with the raw material storage in the production sequence. This is what is required under the Portland Cement NESHAP, and they believe EPA should follow that example. They also state that, if the *mean* of the top 12 percent, instead of the *median* of the top 12 percent, is used to establish the MACT floor, then NSPS subpart OOO could not be the basis for that floor because not all of the MHOs in the top 12 percent are currently subject to subpart OOO. One SER stated that its plant has MHOs (e.g., a crusher)

which process limestone for the kiln as well as other non-lime plant uses such as limestone sales, which would not be regulated under the Lime Manufacturing NESHAP.

PM Standard for Wet Air Pollution Control Devices

One SER stated that his firm recently replaced a wet scrubber with a fabric filter and triggered New Source Review because of an increase in SO₂ emissions. SERs stated that this may happen with other plants that replace their wet scrubbers with a dry PM control device to meet the new PM standard. The SERs suggested that EPA create a subcategory that would set an alternative standard for kilns employing a wet PM-control device, because scrubbers allow sources to comply with any SO₂ limitations while manufacturing low-sulfur lime (a necessary characteristic for use in steel manufacture) from high-sulfur fuels. SERs also stated that replacing a wet control device with a dry control device would reduce PM and metals emissions but increase SO₂ and HCl emissions.

The SERs also suggested EPA allow bubbling of PM emissions from the kiln (*i.e.*, allowing compliance to be demonstrated by summing PM emissions from various regulated sources) as the least burdensome way to achieve the desired emissions reduction. One SER stated that his firm currently sells its de-watered scrubber sludge, and if it were to remove its wet scrubbers (and replace them with fabric filters), it would lose this market. Another SER stated that, based on a vendor quote, it would cost his firm twice as much as EPA estimated to replace its wet scrubbers with fabric filters.

Monitoring

The SERs discussed the difficulties and drawbacks of monitoring with bag-leak detectors (BLDs), and in particular the absence of promulgated specifications and procedures to install, calibrate, and conduct QA/QC for BLDs. They recommended that, in addition to BLDs, EPA should allow the use of continuous opacity monitors (COMs) because the Agency has previously determined that COMs constitute enhanced monitoring and provide reasonable assurance of compliance with PM standards. The SERs agreed that continuous opacity monitors should be allowed because, for several of them, COMs are required under other Federal and state requirements, and cannot legally be removed. A couple of SERs described the substantial resources their companies have already invested to install COMs and to train their personnel to operate them.

Another SER suggested that, because the PM limit is based on PM limits for the 6 top-performing kilns, likewise, the opacity limit should be permit-based, based on these same top-performers' opacity limits. All top-performing kilns have opacity limits of 15 percent, except for one (Cutler Magner's kiln #3), which has a 20 percent opacity limit. The SER said that another basis for the suggested 15 percent opacity limit is that data from one of the top performing kilns (Black River, kiln #4) shows that the kiln's opacity may range between 10 to 15 percent. The SER believes that promulgating an opacity limit lower than 15 percent would be inappropriate.

because the standard could not be achieved by one of the .best-performing. kilns used to establish the MACT floor.

Other SERs mentioned problems associated with monitoring PM control-device parameters, such as ESP voltage and scrubber flow rate and supply pressure. They requested EPA to allow flexibility in choosing scrubber operating parameters. One SER mentioned that his permit requires monitoring of scrubber water-pump amperage, and that they also monitor gas temperature at the outlet of the scrubber.

A SER also described the SERs. concerns about how .violations. of the PM standard are defined in the draft rule. In contrast to the Pulp and Paper MACT standard for lime kilns, which allows operating parameters (*e.g.*, opacity) to be exceeded for up to 6 percent of the reporting period before a violation is deemed to have occurred, the Lime MACT standard specifies that a *single* exceedance of a 3-hour reading of certain operating parameters (*e.g.*, air pressure drop) would constitutes a violation. He suggested that, like the Pulp and Paper MACT standard, as well as the Compliance Assurance Monitoring (CAM) rule, the Lime MACT standard should prescribe maximum periods of time during which, if operating parameters deviate from prescribed levels, this would require that the kiln.s air pollution control device be investigated to ensure it is operating properly (*i.e.*, so-called .corrective action. triggers). He stated that the rule should specify separate, longer time periods during which deviations from prescribed parameter levels would have to occur before constituting a violation.

The SERs stated that the incorporation by reference of chapters 3 and 5 of the American Conference of Governmental Industrial Hygienists (ACGIH) *Industrial Ventilation* manual is unduly prescriptive, and that these requirements are highly complex. The SERs suggested EPA refer to the requirements as guidance only.

Area Source Determinations

The SERs stated that EPA should not require the use of the Fourier Transform Infrared (FTIR) spectroscopy method (EPA Method 320) for the measurement of HCl for area source determinations, since the American Society of Testing and Materials (ASTM) HCl method has been approved and EPA is required to use this consensus-based standard under the National Technology Transfer and Advancement Act. They also suggested that EPA allow the use of a HAP metals .emission factor. so firms could avoid testing for individual HAP metals in making area-source determinations (testing for PM instead and applying an agreed-upon factor for the amount of HAP metal in the PM), and that sources should not be required to test for organic HAPs, since they believe these are inherently low.

Comparison with the Pulp and Paper MACT

The SERs suggested that, in general, EPA should follow the model of the requirements imposed on lime kilns under the Pulp and Paper MACT standards, and they provided the Panel a