

PANEL REPORT

of the

Small Business Advocacy Review Panel on

EPA's Proposed Rule

National Emission Standards for Hazardous Air Pollutants:  
Lime Manufacturing Plants Amendments

November 6, 2023

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## 1. INTRODUCTION

This report is presented by the Small Business Advocacy Review Panel (SBAR Panel or Panel) that the U.S. Environmental Protection Agency (EPA) convened to review the proposed rulemaking “National Emission Standards for Hazardous Air Pollutants (NESHAP): Lime Manufacturing Plants Amendments.” Under section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), a Panel is required to be convened prior to publication of the initial regulatory flexibility analysis (IRFA) that an agency may be required to prepare under the RFA. In addition to EPA’s Small Business Advocacy Chairperson, the Panel consists of the Director of the Sectors Policy and Programs Division of the EPA Office of Air and Radiation, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, and the Chief Counsel for Advocacy of the Small Business Administration (SBA).

This Panel has not followed the normal course of events typical of an EPA Panel. Based on the information available to EPA at the time the Notice of Proposed Rulemaking (NPRM) for this action published<sup>1</sup>, EPA certified the rule as not having a significant economic impact on a substantial number of small entities (No SISNOSE). Since the NPRM published, EPA received additional data and feedback via public comments to update its economic analysis, including impacts to businesses affected by the proposed rule. An initial review of this updated information indicates control costs developed to support the proposal may be understated and there could be significant economic impacts to small businesses. Therefore, EPA convened a Panel. EPA will publish an Initial Regulatory Flexibility Analysis for public comment prior to issuing a final rule.

This report includes the following:

- Background information on the proposed rule;
- Information on the small entities that may be subject to the proposed rule;
- A summary of the public comments from and related to small entities.

Section 609(b) of the RFA directs the Panel to consult with and report on the comments of small entity representatives (SERs) and make findings on issues related to elements of an IRFA under section 603 of the RFA. This report also includes those elements of an IRFA:

- A description of, and where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- A description of projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule;
- A description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes, and which minimize any significant economic

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<sup>1</sup> <https://www.federalregister.gov/documents/2023/01/05/2022-27994/national-emission-standards-for-hazardous-air-pollutants-lime-manufacturing-plants-amendments>

impact of the proposed rule on small entities. This analysis shall discuss any significant alternatives such as:

- the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
- the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
- the use of performance rather than design standards; and
- an exemption from coverage of the rule, or any part thereof, for such small entities.

Once completed, the Panel Report is provided to the agency issuing the proposed rule and is included in the rulemaking record. The agency is to consider the Panel's findings and recommendations and, "where appropriate, the agency shall modify the proposed rule, the initial regulatory flexibility analysis or the decision on whether an initial regulatory flexibility analysis is required" (5 USC 609(b)(6)).

The Panel's findings and discussion will be based on the information available at the time the final Panel Report is drafted. EPA will continue to conduct analyses relevant to the rule, and additional information may be developed or obtained during the remainder of the rule development process.

Any options identified by the Panel for reducing the rule's regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound, and consistent with the Clean Air Act (CAA) sections 112(d)(6) and (f)(2).<sup>2</sup>

## **2. BACKGROUND AND DESCRIPTION OF RULEMAKING**

### **2.1 Regulatory History**

The EPA previously determined that the lime products manufacturing industry may reasonably be anticipated to emit several of the hazardous air pollutants (HAPs) listed in Section 112(b) of the Clean Air Act (CAA), as amended in 1990. Consequently, lime products manufacturing was included in the initial list of HAP-emitting categories published July 16, 1992, in the Federal Register and included in the draft schedule for the promulgation of emission standards published in the Federal Register on September 24, 1992. The NESHAP for lime and structural lime products manufacturing and for lime manufacturing were promulgated on January 5, 2004.

On July 24, 2020, the EPA took final action on the residual risk and technology review (RTR) required by Clean Air Act (CAA) sections 112(d)(6) and (f)(2) for the NESHAP for Lime Manufacturing Plants.<sup>3</sup> In this action, EPA found that the risks associated with air emissions from lime manufacturing were acceptable and that the current NESHAP provides an ample

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<sup>2</sup> See <https://www3.epa.gov/airtoxics/112dpg.html>.

<sup>3</sup> <https://www.federalregister.gov/documents/2020/07/24/2020-12588/national-emission-standards-for-hazardous-air-pollutants-lime-manufacturing-plants-residual-risk-and>

margin of safety to protect public health. EPA removed the exemptions for startup, shutdown, and malfunctions (SSM) and added a requirement for electronic reporting.

EPA also determined in the 2020 final RTR that there are no developments in practices, processes, or control technologies that necessitate revisions to the standards; that risks were acceptable; and that the NESHAP provided an ample margin of safety to protect public health. Therefore, EPA did not set standards for Hydrochloric Acid (HCl), Mercury (Hg), Dioxins/Furans (D/F), and organic HAP (oHAP). EPA's rationale was that section 112(d)(6) of the CAA requires EPA only to review the emission standards already promulgated and does not impose upon the Agency any obligation to promulgate new emission standards or expand the scope of an existing regulation.

In *Louisiana Environmental Action Network v. EPA (LEAN)*, 955 F.3d 1088 (D.C. Cir. 2020), the U.S. Court of Appeals for the D.C. Circuit held that the EPA has an obligation to address unregulated emissions from a major source category when the Agency conducts the 8-year technology review. Though this decision was made prior to promulgation of the final RTR, there was insufficient time to add standards for these pollutants and still meet the court ordered deadline to promulgate the 2020 RTR.

## 2.2 Description of Rulemaking and its Scope

Lime Manufacturing Plants in this source category include facilities engaged in the manufacture of lime products (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells, or other calcareous substances. This rule currently has emissions standards for particulate matter (PM) as a surrogate for metal HAP, and opacity limits that apply to kilns during startup, shutdown, and materials handling operations. The existing rule also contains requirements for electronic reporting of emissions tests and compliance reports. Facilities requesting area source status must also perform an emissions test for HCl emissions to demonstrate it emits less than 10 tons per year of HCl. As a result of emissions data collected for the 2020 RTR, EPA identified four previously unregulated pollutants: HCl, Hg, oHAP, and D/F.

The regulatory revisions currently being considered and evaluated by EPA are new emission limits for HCl, Hg, oHAP, and D/F, along with associated testing, reporting and recordkeeping necessary to determine compliance with the emissions standards. These new emission limits are limited to the lime kilns. The units of measure for existing and proposed limits are lb/ton lime produced (HCl), lb/MMton lime produced (Hg), ppmvd as propane at 7 percent O<sub>2</sub> (THC), and ng/dscm toxic equivalency (TEQ) at 7 percent O<sub>2</sub> (D/F).

## 2.3 Related Federal Rules

The New Source Performance Standards for Lime Manufacturing Plants, 40 CFR part 60 subpart HH, are related to this rule.

### 3. APPLICABLE SMALL ENTITY DEFINITIONS

The Regulatory Flexibility Act defines small entities as including “small businesses,” “small governments,” and “small organizations” (5 USC 601). The regulatory revisions being considered by EPA for this rulemaking are expected to affect small businesses but would not affect any small governments or small organizations. The RFA references the definition of “small business” found in the Small Business Act, which authorizes the SBA to further define “small business” by regulation. The SBA definitions of small business by size standards using the North American Industry Classification System (NAICS) can be found at 13 CFR 121.201.

Table 1 is a detailed listing of SBA definitions of small business for affected industries or sectors, by NAICS code. The estimated number of small firms within each NAICS code is shown.

**Table 1: Industry Sectors, Definitions & Number of Small Entities Potentially Affected by EPA’s Proposed Action**

<b>Name of Industry/Sector</b>	<b>2017 NAICS Code</b>	<b>SBA Size Standard for Small Business</b>	<b>Number of Small Firms<sup>4</sup></b>
Captive lime manufacturing plants at nonferrous metal production facilities	3314	1,000 employees	0
Commercial lime manufacturing plants	32741	1,050 employees	2
Captive lime manufacturing plants at iron and steel mills	33111	1,500 employees	0

### 4. LIST OF SMALL ENTITY REPRESENTATIVES

In developing the proposed rule, EPA identified 12 companies that owned 35 lime manufacturing plants that are subject to the Lime NESHAP. Based on available economic data, three of these companies are small entities based on the size standards in 13 CFR 121.201. EPA contacted each of the three companies to confirm that they meet the size standards in 13 CFR 121.201 and to request the names and contact information of the appropriate person to represent the companies on the SBAR Panel. EPA also reached out to the industry trade association to ask it to identify possible representatives. EPA sent SBA’s Office of Advocacy a Formal Notification with the suggested list of potential SERs on April 26, 2023, and Advocacy responded on May 11.

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<sup>4</sup> Of the firms contacted by the EPA, there are thirty-five separate lime manufacturing facilities and twelve separate companies in the source category. No small firms have been identified for codes 3314 and 33111.

After the Panel had been formally convened, EPA was informed that one of the three small entities had completed a permit renewal for their operations that allowed them to no longer be considered a major source and therefore would not be regulated by this rulemaking.

The final list of small entity representatives (SERs) is shown in Table 2.

**Table 2: List of Small Entity Representatives**

<b>Small Entity Organization</b>	<b>Contact</b>
Greer Lime	Scott Kisner
Pete Liens & Sons	Danielle Wiebers
National Lime Association (NLA) <sup>5</sup>	William C. Herz Bradford Frisby

## **5. PRE-PANEL SMALL ENTITY OUTREACH**

In addition to its statutory obligations under the RFA, EPA often conducts its own “Pre-Panel Outreach” with small entities in advance of convening a Panel. This Pre-Panel Outreach can be helpful for familiarizing potential SERs and the Panel members with the provisions under consideration by EPA for the regulation.

For this rulemaking, EPA did not determine there may be a SISNOSE until after the rule had been proposed. Therefore, the SERs had a fully detailed proposed rule on which to base their advice and recommendations. For this reason, EPA did not conduct a separate Pre-Panel Outreach meeting with potential SERs. The Panel members considered the public comments from, and related to, small entities to shape the discussion during the Panel Outreach with SERs. The next section summarizes those public comments.

## **6. SUMMARY OF PUBLIC COMMENTS RELATED TO SMALL ENTITIES**

EPA received the following comments from small entities and the industry in general on the proposed rule:

- The emissions standards are based on very limited data and do not reflect the actual variability of emissions.
  - General support of subcategorization by kiln type (preheater rotary, straight rotary, and vertical) and lime product (high calcium lime and dolomitic lime) regarding HCl emissions. There is support for establishing 5-year stack testing and parametric monitoring, consistent with current PM requirements. More

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<sup>5</sup> NLA was chosen as a SER representing their small members. NLA does not operate any lime kilns themselves.

rigorous testing is not required using this methodology as risks are acceptable and within an ample margin of safety. “EPA’s section 112(d)(6) review of a source category’s emission standard must address all listed air toxics and source category emits.” LEAN, 955 F.3d at 1091. Commenters stated that under that decision, EPA must “address” whether any further regulation of listed air toxics is “necessary,” in its discretion. All pollutants were addressed in the 2004 Rule. Regulating the HAP in the proposal would have de minimis environmental benefits. There were no residual risks and no technological advances of note, and therefore no reason to revise the MACT standard for the source category.

- HCl emissions limits should be based on a health-based threshold.
  - General support for a health-based standard, sourcing precedent in CAA Section 112 (d)(4) and stating that the EPA concluded in its 2004 rule that HCl was a threshold pollutant. Commenters summarized the risk assessment that EPA performed in 2002 and noted that the EPA concluded that it (the risk assessment) reached a reasonable conclusion that current levels (at the time) of HCl emissions from lime kilns would be well under the threshold levels of concern for human receptors. Commenters noted that the EPA confirmed their assessment through its own analyses.
- The standard for D/F should be based on work practices due to the high number of non-detects.
  - *Chesapeake Climate Action Network v. EPA*, 952 F.3d 310, 315 (D.C. Cir. 2020). Commenters stated that the EPA repeatedly and consistently informed them that the Agency was planning to issue a work practice for D/F because the D/F data showed that more than 55% of test results were non-detect.
- THC is not an appropriate surrogate for regulating organic HAP.
  - THC is not an appropriate surrogate for o-HAPs. THC tends to be dominated by other non-HAP substances. It doesn’t correlate with emission rates of o-HAPs in the lime industry. *Nat’l Lime Ass’n v. EPA*, 233 F.3d 625, 637 (D.C. Cir. 2000) establishing a three-part test for determining whether the use of a surrogate for HAPs is reasonable, including whether: (1) the relevant hazardous air pollutant is invariably present in the proposed surrogate; (2) control technologies for the proposed surrogate indiscriminately capture the relevant HAP along with other pollutants; and (3) the control of the surrogate is the only means by which facilities achieve reductions in emissions of the hazardous air pollutant.)” Commenters suggest an aggregated organic HAP approach to best address o-HAP emissions.
- Air emission control costs (capital and annualized costs) are significantly underestimated, especially for small entities, which do not have the advantage of economies of scale available to larger companies.
  - A supplier indicated capture to be 50-60 percent at gas temperatures in the range of 300-350F and as low as 10 percent at temperatures above 350F. Lime kilns operate at temperatures above 350F prior to the PM control device. Therefore, engineering studies would be required to define injection rates and removal



- efficiencies and would be kiln-specific depending on the organic HAP profile.
- Exhaust quenching: A lime kiln relies on an induced draft (ID) from a fan that moves combustion air and CO<sub>2</sub> released from the decarbonization of limestone through its PM control device and ultimately the kiln's exhaust vent or stack. The ID fan is designed to meet the maximum air volume needed to meet nominal production from the kiln in terms of the expected gas characteristics (i.e., temperature, actual volume, gas composition, etc.). To achieve rapid gas cooling, methods generally include use of ambient air or water sprays to induce or promote adiabatic cooling over a short gas path length. Put more simply, rapid cooling of the exhaust gas stream results in larger loads on the ID fan that will consume any available ID fan capacity and force a reduction in process gas loading -- thus creating a process bottleneck. This gas cooling bottleneck will result in reduced lime production rates and lower profit. The commenters stated this is another significant cost EPA failed to account for.
  - The influence of SO<sub>2</sub>, HCl, and Hg in the gas steam of a lime kiln will reduce the effectiveness of active carbon injection (ACI) for THC.
- Due to the cost underestimation, there is a significant impact to a substantial number of small entities (SISNOSE).
    - Commenters stated that the EPA has underestimated the cost of compliance, especially for small businesses. Commenters noted that the proposed rule imposes controls on four times as many pollutants (compared to the 2004 rule), has significantly lower standards that will be harder to meet, and will require small entities to install at least two new types of pollution control mechanisms at their lime operations.
    - EPA has significantly underestimated their cost for compliance and the economic impacts will be significant under EPA's RFA guidance.
    - EPA significantly overestimated THC reductions from ACI systems and significantly underestimated the costs of ACI systems.
    - EPA has significantly underestimated the number of Regenerative Thermal Oxidizers (RTOs) needed to demonstrate compliance with the proposed standards because ACI cannot achieve 60% reduction of THC.
    - Commenter stated that the EPA has underestimated cost by not accounting for each kiln configurations control type, as it relates to ACI rates.

## **7. SUMMARY OF PANEL OUTREACH WITH SMALL ENTITY REPRESENTATIVES**

The Panel conducted a meeting with SERs on August 3, 2023. To help SERs prepare for the meeting/teleconference, EPA sent materials to each of the SERs via email on July 20, 2023. The materials shared with SERs during the Panel outreach meeting are included in Appendix A. A total of three small entity organizations participated in the meeting. EPA presented an overview of the SBAR Panel process, an explanation of the proposed rulemaking, and technical background. A discussion session was held to obtain advice and recommendations from the individual SERs about the impacts of the proposed rule, related Federal rules, and any significant alternatives that may minimize significant impacts on small entities while accomplishing the

stated objectives of the Clean Air Act. EPA asked the SERs to provide written comments by August 17, 2023.

Comments raised during the Panel Outreach meeting and written comments submitted by the SERS are summarized in section 8 of this document. The SERs' written comments are included in their entirety in Appendix B.

## **8. SUMMARY OF COMMENTS FROM SMALL ENTITY REPRESENTATIVES**

### **8.1 Number and Types of Entities Affected**

There were no SER comments related to the number and types of entities affected.

### **8.2 Potential Reporting, Recordkeeping, and Compliance Requirements**

Historically, the CAA addresses both federal and state regulations limiting emissions from stationary and mobile sources. The Paperwork Reduction Act (PRA) requires that all reporting and recordkeeping requirements have practical utility and appropriately balance the needs of the government with the burden on the public.

The SERs supported the testing requirements in the proposed rule, which requires testing every five years for all pollutants.<sup>6</sup> The SERS also supported EPA's decision to not propose a continuous emissions monitoring requirement, which minimizes the monitoring burden. SERs also commented that EPA should authorize the use of EPA method 26/26A to measure HCl emissions.

Two of the three SERs pointed to negative economic impacts of the rule if implemented as currently written. Greer Lime Company noted that approximately 15 tons of hydrated lime would be unavailable to existing Greer customers in water treatment facilities, acid mine damage treatment facilities, air pollution control equipment operators and domestic steel producers. Pete Liens' kilns supply multiple customers for environmental mitigation purposes. Existing customers would see their shipments impeded, forcing them to seek other suppliers, thus affecting the viability of the SERs' businesses.

The NLA referred to a report prepared by Trinity Consultants<sup>7</sup> on the costs of the emissions that would be required to meet the emissions limits in the proposed rule. Based on this report, NLA questioned the validity of EPA cost estimates for HCl and THC controls. The EPA cost estimate assumed a very high percentage removal of HCl by a dry sorbent injection (DSI) system, whereas the Trinity report assumed it would be as low as 83 percent. The Trinity report also assumed a 30 percent THC removal with ACI, which is much lower than EPA assumed in their ACI cost estimate.

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<sup>6</sup> This is considered to be the minimum testing requirement for a NESHAP.

<sup>7</sup> <https://www.regulations.gov/document/EPA-HQ-OAR-2017-0015-0092>

The Trinity Consultants' cost estimate for the industry as a whole was about \$924 million in capital costs and about \$180 million a year in total annualized costs. According to NLA, this would imply a total industry cost of approximately \$1.0 billion. According to the U.S. Geological Survey (USGS), total revenues for industry are only about \$2.3 billion.

### 8.3 Related Federal Rules

As discussed in Section 2.3, New Source Performance Standards for Lime Manufacturing Plants, proposed May 3, 1977, promulgated March 7, 1978, limited particulate matter (PM) emissions from rotary and lime hydrator kilns, 40 CFR part 60 subpart HH. The SER comments did not note any additional related Federal rules.

### 8.4 Regulatory Flexibility Alternatives

The SERs encouraged EPA to “exercise the maximum flexibility permitted by the Clean Air Act, including the use of health-based standards and work practice standards, to allow small businesses to continue operating without requiring investment in expensive emission control equipment that will have no appreciable public health benefit.”

Specifically, the SERS stated that EPA should use its authority and discretion to do the following: adopt an intra-quarry variability factor for mercury; adopt an aggregated o-HAP approach for regulated organic HAPs; promulgate a health-based standard for HCl; and collect more information on dioxins and furans before setting a MACT floor standard (or alternatively, correct the numeric standard and allow additional flexibility in demonstrating compliance with that standard); allow emissions averaging for all regulated HAPs, and authorize the use of EPA method 26/26A<sup>8</sup> to measure HCl.

The SERs were concerned that THC is not an accurate surrogate to determine o-HAP emissions. They noted that measured THC emissions would also include non-HAP organic compounds such as methane. They proposed an alternative method to set an emissions limit for o-HAP would be to set standards based on an aggregate of 15 o-HAPs. This would be similar to the standard of nine aggregate o-HAPS that is used in the Portland Cement NESHAP.<sup>9</sup>

## 9. PANEL FINDINGS

### 9.1 Number and Types of Entities Affected

As noted in section 3, the affected facilities are commercial lime manufacturing plants, NAICS code 32741.

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<sup>8</sup> See <https://www.epa.gov/emc/method-26-hydrogen-chloride-halides-halogen> and <https://www.epa.gov/emc/method-26a-hydrogen-halide-and-halogen-isokinetic-method-0>.

<sup>9</sup> See <https://www.govinfo.gov/content/pkg/FR-2018-07-25/pdf/2018-15718.pdf>.

Of the 12 businesses in this source category, only two are considered small businesses based on the SBA small business standard. These small businesses operate a total of 5 lime kilns. The lime kilns are the “affected facilities” – the portions of the lime production process expected to be affected by this rule. The rule, as proposed, is expected to have significant economic impacts on both of the small businesses in this source category.

## 9.2 Potential Reporting, Recordkeeping, and Compliance Requirements

The proposed rule requires testing every five years for all pollutants. This is considered to be the minimum testing requirement for a NESHAP. The Panel supports EPA's decision to not propose a continuous emissions monitoring requirement, which minimizes the monitoring burden.

## 9.3 Related Federal Rules

New Source Performance Standards for Lime Manufacturing Plants, 40 CFR part 60 subpart HH, are related to this rule.

## 9.4 Regulatory Flexibility Alternatives

Based on SER comments, the Panel identified the following regulatory flexibilities.

The Panel believes that EPA should consider setting a work practice standard for D/F rather than a numeric emissions limit. The Panel notes that Section 112(h)(2) of the CAA allows the Administrator to set a work practice standard if they determine that the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations, and that a significant percentage of the D/F data shows that emissions are below the method detection limit. The Panel believes that EPA should review these data to determine if they support a finding that it is not feasible in the judgment of the Administrator to prescribe or enforce a numeric emissions limit.

The Panel believes that EPA should account for additional sources of variability in this floor determination, namely the long-term variability of the limestone mercury content that is not captured by a short-term emissions test.<sup>10</sup> EPA is aware that limestone quarries are immense and customarily used from periods of 50 to 100 years. The Panel notes that taking the average of a three-hour emissions test from one part of the quarry would not necessarily encompass all of the different mercury levels throughout the quarry. The Panel notes that industry commenters had provided data on mercury content of kiln feed and core samples of quarry mercury content which they believe could be used to assess this long-term emissions variability.

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<sup>10</sup> Because this source category has more than 30 sources, when setting MACT standards EPA looks to the average emissions of the best performing 12 percent of the sources for which emissions data are available. However, the test data used to set standards are a short-term snapshot of the emissions for the best performing kilns. For this reason, in setting MACT standards EPA assesses variability of the best performers by using a statistical formula designed to estimate a MACT floor level that is equivalent to the average of the best performing sources based on future compliance tests. For this source category the limestone quarry adjacent to a lime kiln is an inherent part of the process and it is not possible to find substitute limestone sources, so variability of mercury emissions is directly tied to the variability of the mercury content of the quarry.

With respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing NESHAP emission standards, CAA Section 112(d)(4)<sup>11</sup>. The Panel notes that there have been two separate risk analyses performed on the health impacts of HCl for this source category and both indicated that ambient levels of HCl resulting from kiln emissions were well below the health effects threshold established in the EPA Integrated Risk Information System. Therefore, the Panel believes these data are sufficient to allow EPA to consider the health impacts threshold when setting an HCl emissions limit. The Panel noted this would be an important step to lessen the impact of the rule on small businesses.

The proposed rule used THC as a surrogate for establishing an emissions limit for organic Hazardous Air Pollutants (o-HAP). The Panel notes that EPA has the option of setting a standard for o-HAP (the actual pollutant being regulated) rather than relying on a THC surrogate if data are available. This option could address the SERs' concerns that installing RTOs to meet a THC standard would be cost prohibitive. There is o-HAP data available to EPA. However, the EPA notes that the data are somewhat limited.

The Panel notes that EPA does have the flexibility to set subcategories based on size, class, or type. In the proposed rule EPA exercised this flexibility and established separate HCl emissions limits for different types of lime kilns and different types of lime products. The Panel notes that this flexibility reduces the economic impacts of the HCl standard by accounting for differences in emissions that are inherent to the kiln type. The Panel supports this subcategorization, noting that if EPA does decide to set a health-based standard then this issue would become moot.

## 9.5 Summary of Panel Recommendations

1. The Panel recommends EPA consider and take public comment on a health-based standard for HCl pursuant to section 112(d)(4) of the Clean Air Act.
2. The Panel recommends EPA consider and take public comment on an overall o-HAP limit rather than a THC limit.
3. The Panel recommends that EPA consider intra quarry variability of mercury in setting the mercury emissions limit using the data already provided, and any additional data that may become available.
4. The Panel recommends that EPA retain the subcategories for the HCl numeric emissions limits unless EPA sets a health-based standard for HCl.
5. The Panel recommends that EPA consider and take public comment on setting a work practice standard for dioxins/furans in place of a numeric limit.

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<sup>11</sup> See <https://www3.epa.gov/airtoxics/112dpg.html>.

## **APPENDIX A: Materials EPA shared with Small Entity Representatives**

Appendix A (separate document) is a compilation of all outreach materials shared with SERs for the Panel Outreach meeting. Below is a list of those materials.

- Agenda
- Panel Process Presentation
- Rulemaking Presentation

## **APPENDIX B: Written Comments Submitted by Small Entity Representatives**

Appendix B (separate document) is a compilation of all written comments submitted by SERs following the Panel Outreach meeting. Below are the SERs that submitted comments.

- Greer Lime Company
- Pete Liens & Sons, Inc.
- National Lime Association