Proposed Revisions to National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants

SCHIRMANN Nicolas

In response to the need to reduce air pollution, particularly from industrial sources, the Environmental Protection Agency (EPA) issued a Notice of Proposed Rulemaking for National Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants. This regulatory framework aims to enhance environmental protection in lime production by updating standards on emissions, and highlights progress made in recent years to better assess air pollution caused by industrial activity.

First, we will provide a global summary of the proposed regulation and then, make an analysis of potential shortcomings that require improvements.

Introduction:

Air pollution poses serious threats to public health and the environment, thus requiring stringent and comprehensive regulations to curb pollution emissions. The lime industry contributes to air pollution by releasing hazardous air pollutants (HAPs). In light of this issue, EPA has proposed changes aimed at reducing HAP emissions and improving air quality by considering adverse impacts to communities. This comment examines the proposed changes and emphasizes their potential impact and remaining gaps to preserve environmental protection and tackle health and social justice concerns.

Legislative Framework:

The Clean Air Act (CAA) authorizes the EPA to oversee and evaluate air pollution policy, as part of its mission to protect public health and the environment. Based on the authority granted

by the CAA, the EPA aims to increase the effectiveness of the NESHAP on reducing emissions, updating pollutant emission limits and compliance procedure.

Background:

The Environmental Protection Agency is responsible for imposing emission limits for pollutants emitted by this type of industry. However, despite regulatory efforts, HAP emissions from lime plants remain a major concern, requiring further revision of NESHAP in response to public health and environmental concerns such as water and soil degradation directly affecting communities living near those manufacturing sites. Indeed, lime manufacturing involves heating limestone to very high temperatures. This industrial process releases a massive quantity of pollutants in the air, notably carbon monoxide, and hazardous air pollutants. Moreover, the dust produced by such operations is another major concern, affecting the surrounding ecosystem, and posing respiratory problems for the health of nearby inhabitants. It is thus an industry that requires stringent control over its environmental effort to tackle air pollution and release of pollutants.

Changes emphasized by this regulation:

These changes highlight several key variables, including hydrogen chloride, mercury, organic HAP, and D/F emission standards. These proposed changes include technical modifications to emission limits, consideration of health-based emission limits (HBELs), alongside the application of an intra-quarry variability (IQV) factor included for mercury emissions.

Compliance options:

In addition to revising emission standards, the proposed rule introduces compliance mechanisms at existing facilities in the lime processing industry. These compliance measures, such as emission averages, provide facilities with the flexibility to demonstrate compliance with

the revised standards in an effort to reduce the overall compliance burden, demonstrating EPA's willingness to promote emission reductions and ensure industry compliance. However, this regulation must ensure that these compliance mechanisms maintain strict legal standards and do not compromise environmental protection objectives. Stricter policies need to be implemented, and annual declarations of pollution discharges can increase scrutiny of compliance with regulations imposed on such industries.

Economic impact:

EPA has estimated the total annual cost of the proposed rule to be $174 million per year. Although these costs represent a substantial financial burden for those facilities, the federal agency believes that the public health and environmental benefits resulting from the proposed changes are considerable. However, it is important to consider the economic impact of industry competition and employment, especially in areas that depend heavily on lime production. This legislation should ensure that it proposes mechanisms that consider the need to regulate these industries, as well as their overall financial and regulatory requirements. Compliance with environmental standards should not negatively impact the economic performance of these mining industries, which already have competitive challenges.

Environmental and social justice considerations:

Population densities near these sites, particularly within 5 km, mainly include Hispanic/Latino neighborhoods, linguistically separated households, people living below the poverty line, people of color, and people without a high school diploma. Therefore, this legislation has important implications for environmental and social justice. In fact, to deal with this important issue that seeks to reduce carbon emissions, and to protect disproportionately affected communities against the adverse health effects of air pollution, the regulation may highlight the interest in impact assessment to more accurately evaluated the adverse health and environmental effects affecting those close communities.

My thoughts on the proposed regulation:

This proposed regulation is a valuable contribution that seeks to solve air pollution issues coming from industries often criticized to be responsible for discharging excessive pollutant emissions. Additionally, this regulation sends a strong signal about the care for public health and the environment. Such amendments highlight an undeniable necessity in developing stricter rules and effective implementation mechanisms to lessen the air pollution adverse effects. However, there are still important aspects of the law that require deeper commitments and improvements to guarantee the regulation efficiency as well as social fairness.

Areas for improvement:

First, while the set limits and compliance mechanisms laid out by the regulations provide a more comprehensive action on the targeted carbon dioxide emissions; there is still room for more stringent measures to achieve even greater reductions of pollutant emissions. In fact, EPA could work towards scrutinizing the possibilities of stricter limits based on the most up to date pollution control technologies.

Moreover, the right to monitor and control are essential to ensure that the proposed amendments are observed and implemented efficiently. It is the environmental agency's responsibility to support regulators adequately with resources, such as inspections and assessments, and take strong actions including fines and penalties for manufacturers that deliberately refuse to comply with environmental regulations.

Furthermore, inhabitants from close communities may be included in the decision-making process. This action will intensify transparency and encourage citizen supervision. Enabling connections with local business leaders, trade unions and their representatives, and environmental advocacy groups would be valuable to consider different ideas and concerns.

In addition to that, the EPA should set a goal of considering social justice for affected populations that have remained disadvantaged by air pollution by ensuring social justice in every aspect of the decision-making process. Indeed, disadvantaged groups and workers are most exposed to the risk of worsening health conditions, and long-lasting adverse consequences.

Conclusion:

To conclude, the National Standards for Hazardous Air Pollutants' revisions for lime manufacturing plants is a significant improvement that is intended to curb the emissions of hazardous air pollutants and safeguard the close communities' wellness and the environment. In fact, this regulation underlines the increasing concerns over environmental protection and adverse effects of air pollution. Nevertheless, there are remaining opportunities for the EPA to enhance the effectiveness of this regulation to better protect public health, promote environmental justice, and ensure social justice and fairness.