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I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Hydrochloric acid production and fume silica production were listed as source categories under the production of inorganic chemicals group on EPA's initial list of major source categories published in the **Federal Register** on July 16, 1992 (57 FR 31576).¹ On September 18, 2001, we combined these two source categories for regulatory purposes under the production of inorganic chemicals group and renamed the source category as HCl production (66 FR 48174). The next revision to the source category list will reflect this change. Major sources of HAP are those that have the potential to emit greater than 9 megagrams per year (Mg/yr) (10

tons per year (tpy)) of any one HAP or 23 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory for which the Administrator has emissions information (or the best-performing five sources for which the Administrator has or could reasonably obtain emissions information for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

C. How Did the Public Participate in Developing the Final Rule?

Prior to proposal, we met with industry representatives once to discuss the data and information used to develop the proposed standards. In addition, these and other potential stakeholders, including equipment vendors, environmental groups, and the general public, had opportunity to comment on the proposed standards.

The proposed rule was published in the **Federal Register** on September 18, 2001 (66 FR 48174). The preamble to the proposed rule discussed the availability of technical support documents, which

described in detail the information gathered during the standards development process. Public comments were solicited at proposal.

We received 22 public comment letters on the proposed rule. The commenters represent the following affiliations: HCl producers, industrial trade associations, and one group of citizens. In the post-proposal period, we met with industry representatives to discuss their concerns. Meeting records are found in Docket ID No. OAR-2002-0057. All of the comments have been carefully considered, and, where appropriate, changes have been made for the final rule.

II. Summary of the Final Rule

A. Who Is Subject to the Final Rule?

The final rule covers HCl production located at plant sites that are major sources of HAP emissions. The HCl production facility is the basic unit defined in the final rule. Specifically, the final rule defines an HCl production facility as the collection of unit operations and equipment associated with the production of liquid HCl product. Therefore, a plant site could have several separate and distinct HCl production facilities. However, as discussed more in subsection C of this section, the affected source includes all HCl production facilities at the same site.

There are several characteristics that define an HCl production facility and make the facility subject to the final rule that require explanation. First, the facility must produce a liquid HCl product with a concentration of 30 weight percent or greater during its normal operations. Facilities that produce only low concentration acid, and facilities that produce low concentration acid and only occasionally produce 30 weight percent acid, are not subject. Second, the liquid HCl must be produced by absorbing gaseous HCl into either water or an aqueous HCl solution. Production of an anhydrous HCl product is not covered by the final rule. Also, production of a liquid HCl product by a chemical reaction that occurs in the liquid phase, or any other process that does not involve the absorption of gaseous HCl into water or aqueous HCl, is not covered.

There are numerous types of processes that produce a gaseous stream containing HCl that is the starting point for an HCl facility (including fume silica production). However, the final rule is blind to the type of process that generates the HCl, as an HCl production facility begins at the point where the

¹ Later listing notices (e.g., 66 FR 8220) refer to the source category as "fumed" silica.