

I. Background

A. What Are the Sources of Authority for This Final Action?

Section 112 of the Clean Air Act (CAA) contains our authorities for reducing emissions of HAP. Section 112(c)(1) of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish national emission standards for hazardous air pollutants (NESHAP) for the listed source categories and subcategories. Section 112(c)(9) of the CAA contains provisions that allow the deletion of source categories listed under CAA section 112(c)(1) provided that certain conditions are met. For chemicals that may result in cancer in humans, the condition is that no source in the category emit HAP in quantities that result in a lifetime cancer risk of greater than one in a million to the individual in the population who is most exposed. For chemicals that result in adverse health effects other than cancer or adverse environmental effects, the conditions are that no source in the category emit HAP that exceed a level "adequate to protect public health with an ample margin of safety" and that no source emit HAP in quantities to cause adverse environmental effects.

Section 112(d) of the CAA requires us to promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of HAP listed pursuant to CAA section 112(c). Section 112(d)(2) of the CAA specifies that emission standards promulgated under the section shall require the maximum degree of reductions in emissions of the HAP subject to CAA section 112 that are deemed achievable considering cost and any non-air quality health and environmental impacts and energy requirements.

Each of the NESHAP established reflects the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as maximum achievable control technology (MACT).

The CAA includes exceptions to the general statutory requirement to establish emission standards based on MACT. For pollutants for which a threshold has been established, CAA section 112(d)(4) allows us ". . . to consider such threshold level, with an ample margin of safety, when establishing emissions standards. . . ."

B. What Is the Source Category?

The chlorine production source category was initially listed as a category of major sources of HAP pursuant to section 112(c)(1) of the CAA

on July 16, 1992 (57 FR 31576). At the time of the initial listing, we defined the chlorine production source category as follows: "The Chlorine Production Source Category includes any facility engaged in the production of chlorine. The category includes, but is not limited to, facilities producing chlorine by the following production methods: diaphragm cell, mercury cell, membrane cell, hybrid fuel cell, Downs cell, potash manufacture, hydrochloric acid decomposition, nitrosyl chloride process, nitric acid/salt process, Kel-Chlor process, and sodium chloride/sulfuric acid process."

In our subsequent analysis of the chlorine production source category, we did not identify any facilities that produce chlorine using hybrid fuel cells, the nitrosyl chloride process, the Kel-Chlor process, the sodium chloride/sulfuric acid process, or as a by-product from potash manufacturing. The majority of the source category is made up of chlor-alkali plants that produce chlorine and caustic (sodium hydroxide) using mercury cells, diaphragm cells, or membrane cells. We also identified operating plants that produce chlorine as a by-product: one from the production of sodium metal in Down cells, another from the production of potassium nitrate fertilizer that uses the nitric acid/salt process, and a third that produces chlorine as a by-product from primary magnesium refining (magnesium refining is a separately listed source category, and is being addressed on its own in a separate rulemaking). In addition, at a site where a membrane cell process is located, we have identified a process that produces chlorine through the decomposition of HCl. Our analysis shows that the only HAP emitted from sources within the chlorine production source category are chlorine, HCl, and mercury, and mercury is only emitted from mercury cell chlor-alkali plants.

Because of the differences in the production methods and the HAP emitted, we decided to divide the chlorine production category into two subcategories: (1) Mercury cell chlor-alkali plants, and (2) chlorine production plants that do not rely upon mercury cells for chlorine production (diaphragm cell chlor-alkali plants, membrane cell chlor-alkali plants, etc). Thus, on July 3, 2002, we issued different proposals to address the emissions of mercury from the mercury cell chlorine production subcategory sources (67 FR 44672) and the emissions of chlorine and HCl from both the non-mercury cell chlorine production subcategory and the mercury cell

chlorine production subcategory sources (67 FR 44713). This final action deletes the non-mercury cell chlorine production subcategory. Elsewhere in today's **Federal Register**, we are issuing a final rulemaking to regulate mercury emissions for mercury cell chlorine production subcategory sources to regulate mercury emissions, and we are utilizing our authority under CAA section 112(d)(4) not to regulate chlorine and HCl emissions from the mercury cell chlorine production source category.

In the non-mercury cell chlorine production subcategory, we identified 20 major source plant sites where diaphragm or membrane cell chlor-alkali chlorine production plants are located. None of the non-mercury cell chlorine production processes at these sites emit HAP greater than 10 tons per year (tpy) of one HAP or 25 tpy of all HAP (that is, they would not be major source if they were not collocated with other HAP emission sources), but the total emissions from the entire contiguous plant site make each a major source.

C. How Did the Public Participate in Developing This Final Action?

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

The proposed action was published in the **Federal Register** on July 3, 2002 (67 FR 44713). The preamble to the proposed action 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 eight public comment letters on the proposed action. The commenters represent the following affiliations: industry representatives, governmental entities, and environmental groups during the public comment. In the post-proposal period, we had discussions with commenters and other stakeholders to clarify comments and to assist in our analysis of the comments. Records of these contacts are found in Docket No. A-2002-09 or OAR-2002-0016.

II. Summary of Final Action

This final action deletes the subcategory of the Chlorine Production Source Category for facilities that do not utilize mercury cells to produce chlorine and caustic. This action is