

including the kiln emission data referenced by the commenters. After considering the design of the control devices for those kilns and the likely variations in emission data, we concluded that the available data support a 20 ppmvd THC emission limit.

*Comment:* One commenter stated that Congress intended MACT standards to be industry-specific, and he objected to the use of data for the brick and structural clay products industry to establish emission limits for HF and HCl from clay refractory products kilns. The commenter stated that it is inappropriate to use data from another industry to develop emission limits for the refractory products manufacturing industry.

*Response:* Section 112(d) of the CAA requires us to establish emission limits for new sources based on the performance of the best-controlled similar source. The CAA does not specify that the similar source must be within the same source category. To the contrary, our interpretation of section 112(d) is that we are obligated to consider similar sources from other source categories in determining the best-controlled similar source for establishing MACT for new sources.

For clay refractory products kilns, we concluded that the best-controlled similar sources are found in the brick and structural clay products industry. We believe that brick kilns are similar to clay refractory products kilns for several reasons: (1) Most clay refractory products are fired in tunnel kilns, as is the case for brick manufacturing; (2) in both industries, tunnel kilns are designed to have three temperature zones, a preheating or drying zone, a firing zone, and a cooling zone; (3) in both industries, unfired shapes (bricks or refractories) are loaded onto rail cars and transported through each successive temperature zone through a series of timed pushes; (4) both clay refractory kilns and brick kilns typically operate at peak temperatures of approximately 2000°F; (5) firing times in clay refractory and brick kilns are similar; (6) the raw materials used in producing bricks (primarily common clay and shale, but also fire clay) and clay refractories (primarily fire clay) are similar; and (7) at least one refractory products manufacturer fires both clay refractory products and brick and structural clay products in the same kilns.

The HF and HCl controls currently used in the brick and structural clay products industry are a function of kiln size (*i.e.*, production rate). Kilns with production capacities of less than 9.1 Mg/hr (10 tons/hr) are classified as

small kilns, and those with production capacities of at least 9.1 Mg/hr (10 tons/hr) are classified as large kilns. For small brick kilns, the best-performing source is a kiln controlled with a DLA. For large kilns, the best-performing sources are those controlled with either a DIFF, DLS/FF, or wet scrubber. Although DIFF, DLS/FF, and wet scrubbers generally are more effective than DLA in reducing emissions of HF and HCl, large kiln controls require minimum exhaust gas flow rates that are significantly higher than the flow rates characteristic of small kilns. Consequently, the DLA is the only device that has been demonstrated to be feasible for controlling HF and HCl emissions from small brick kilns. Using the same size classification system, the clay refractory products kilns currently in operation would all be classified as small kilns. All operate at less than 9.1 Mg/hr (10 tons/hr), and 90 percent operate at no more than 4.5 Mg/hr (5 tons/hr). Because of the similarities in design and operation discussed in the previous paragraph, and taking into account kiln size, we have concluded that small brick kilns and clay refractory products kilns are similar sources. In the final rule, we are incorporating HF and HCl emission limits based on the performance of DLA-controlled brick kilns.

*Comment:* One commenter expressed concern with how we used data for the brick and structural clay products industry to develop emission limits for new clay refractory products kilns. He stated that we used the same data to propose more stringent HF and HCl limits for new clay refractory products kilns than were proposed for new brick and structural clay products kilns under the proposed Brick and Structural Clay Products NESHAP (67 FR 47894, July 22, 2002). The proposed HF emission limit for new brick and structural clay products kilns is 0.014 kg/Mg (0.027 lb/ton), whereas the proposed HF limit for new clay refractory products kilns is 0.001 kg/Mg (0.002 lb/ton). In addition, the proposed HCl emission limit for new brick and structural clay products kilns is 0.019 kg/Mg (0.037 lb/ton), whereas the proposed HCl limit for new clay refractory products kilns is 0.0025 kg/Mg (0.005 lb/ton).

*Response:* In selecting the proposed HF and HCl emission limits for new clay refractory products kilns, we reviewed the available emission data from the brick and structural clay products industry and selected the single best-performing similar source, which was an individual brick kiln controlled with a DLS/FF. To select the HF and HCl emission limits for brick

kilns in the proposed Brick and Structural Clay Products NESHAP, we used a different approach based on the overall performance of the available control technologies. We reviewed the available data and concluded that the three best-performing control technologies (DLS/FF, DIFF, and wet scrubbers) are essentially comparable in terms of reducing HF and HCl emissions. We also considered the variability in the data and selected the percentage reductions that we believe all three technologies can achieve on a continuous basis according to the available test data. We used those percentage reductions, which were 95 percent for HF and 90 percent for HCl, to derive the proposed production-based emission limits from the emission factors for uncontrolled HF and HCl from brick kilns. Those production-based emission limits were 0.014 kg/Mg (0.027 lb/ton) for HF and 0.019 kg/Mg (0.037 lb/ton) for HCl. After reconsidering both approaches for selecting emission limits, we have concluded that the technology-based approach that we used to develop the emission limits for the proposed Brick and Structural Clay Products NESHAP is the appropriate method for establishing HF and HCl emission limits for new clay refractory products kilns.

In the proposed Brick and Structural Clay Products NESHAP, we also subcategorized according to kiln size by differentiating between large kilns (*i.e.*, those with production capacities of 9.1 Mg/hr (10 tons/hr) or greater) and small kilns (*i.e.*, those with production capacities that are less than 9.1 Mg/hr (10 tons/hr)). For today's final rule, we have incorporated this same size classification system into our determination of the emission limits for new clay refractory products kilns. We have concluded that small brick kilns are similar to clay refractory products kilns and that the best-controlled similar source for clay refractory products kilns is a small brick kiln controlled with a DLA. Although there are other technologies that perform well in controlling HF and HCl emissions from brick kilns (*i.e.*, DLS/FF, DIFF, and wet scrubbers), those control devices have been used only on large brick kilns. On the other hand, DLA are currently in use on both large and small brick kilns. The available data indicates that a DLA can achieve emissions reductions of 90 percent HF and 30 percent HCl on a consistent basis. We have applied these emissions reductions to HF and HCl data from uncontrolled clay refractory products kilns and are incorporating into today's final rule the