

choose to comply with today's final rule.

The available emission data for the refractory products manufacturing industry indicate that sources that are controlled to levels above the MACT floor (i.e., more stringent than the MACT floor control level) achieve THC emissions reductions of at least 95 percent, and sources that are controlled to levels below the MACT floor achieve THC emissions reductions that are less than 95 percent. Based on our analysis of the data, we concluded that a 95 percent THC reduction represents the level of emissions control that is achieved by a thermal process source of organic HAP that is controlled to the MACT floor level. Additional information on our analysis of the available THC emission reduction data is provided in Docket No. OAR-2002-0088.

We did not propose a percentage THC reduction because we believed that testing the inlets of the control devices used on thermal process sources of organic HAP was not feasible for most sources. However, based on the public comments received on the proposed rule, we believe that refractory products manufacturers can measure THC at the inlets and outlets of most affected sources. Furthermore, those facilities that cannot obtain inlet and outlet measurements still have the option of complying with the 20 ppmvd THC emission limit.

For the proposed rule, we developed HF and HCl emission limits based on the emission levels that could be achieved by the best-controlled kiln in the brick and structural clay products industry. Since proposal, we have obtained additional information on the types of emission controls used in the brick and structural clay products industry to reduce emissions of HF and HCl from kilns. Based on that information, we have concluded that the best-controlled similar source for clay refractory products kilns is a small brick kiln that is controlled with a DLA. A small brick kiln is a kiln with a production capacity of less than 9.1 Mg per hour (Mg/hr) (10 tons per hour (tons/hr)). The data indicate that a DLA can achieve HF emissions reductions of 90 percent and HCl emissions reductions of 30 percent. We used those emissions reductions to develop the HF and HCl emission limits specified in the final rule. The revised emission limits for HF are a 90 percent reduction or 0.019 kg/Mg (0.038 lb/ton) of uncalcined clay processed. For HCl, the revised emission limits are a 30 percent reduction or 0.091 kg/Mg (0.18 lb/ton) of uncalcined clay processed.

For proposal, we based the HF and HCl emission limits for new clay refractory products kilns on emission data for a brick kiln that was controlled with a DLS/FF. When we developed those proposed emission limits, we made no distinction between kiln size and control options. However, a review of the emission data for controlled brick kilns indicates that kiln size must be considered when determining feasible control options for reducing emissions of HF and HCl. For brick kilns with production capacities of 9.1 Mg/hr (10 tons/hr) or greater (i.e., large kilns), several control devices have been demonstrated to be highly effective in reducing HF and HCl emissions. Those controls include DLS/FF, DIFF, and wet scrubbers. However, for brick kilns that are designed with production capacities below 9.1 Mg/hr (10 tons/hr), only the DLA has been demonstrated to be a feasible control option for HF and HCl. With DLS/FF, DIFF, and wet scrubbers, it is necessary to maintain minimum exhaust gas flow rates for effective HF and HCl removal, and those minimum exhaust flow rates are significantly greater than the flow rates characteristic of small brick kilns. On the other hand, the performance of the DLA is unaffected by exhaust gas flow rates through the system, and DLA have been used on small brick kilns. Consequently, we have concluded that the best-controlled small brick kiln is equipped with a DLA. We have also concluded that clay refractory products kilns are similar to small brick kilns because 90 percent of the clay refractory products tunnel kilns currently in use were designed to operate at 4.5 Mg/hr (5 tons/hr) or less, and there are no clay refractory products kilns that operate with production rates greater than 8.2 Mg/hr (9 tons/hr).

For existing clay and chromium refractory products kilns, we are still requiring limits on the types of fuels that can be used in affected kilns. However, we have also included a provision for the affected facilities to use alternative fuels during specified times of natural gas curtailment and during other times when natural gas is unavailable. To comply with this provision, owners or operators of affected kilns must notify the permitting authority within 48 hours following the declaration of such an emergency or the interruption of the natural gas supply. In addition, within 10 working days after the facility terminates the use of the alternative fuel, the final rule requires submittal of a report that details the dates of alternative fuel usage and the amount of alternative fuel used.

B. Compliance Testing

For batch process sources, we have reduced the minimum number of compliance test runs from three to two. We believe that two test runs are adequate for characterizing emissions from batch process sources. Although we are still requiring a minimum of three 1-hour test runs for continuous sources, we believe that it is unnecessary to test batch process sources for three runs. Under the final rule, each test run on a batch process source will last at least 3 hours, and in most cases a test run will last considerably longer (i.e., in excess of 10 hours). Thus, even with the reduced number of test runs, an emission test on a batch process source will still require a much longer test period than a test on a continuous process source. Because of the extensive duration of each test run, we believe that a second test run is adequate for corroborating the results of the initial test run, and a third test run is unnecessary. Many batch process refractory products are specialty items that are produced infrequently. Because we are requiring each test run to be conducted over a separate batch process cycle, it may not be practical, and it may disrupt production of other products, to require testing over separate cycles. In some cases, conducting the compliance test over multiple process cycles could require a testing period of weeks or months, thereby preventing the use of the batch process source for manufacturing other refractory products. For this same reason, we have included in today's final rule a provision for allowing owners and operators to conduct both test runs simultaneously over a single batch process cycle using paired sampling trains, under certain conditions. Rather than basing compliance on a rolling 3-hour average, today's final rule requires compliance for batch process sources to be based on emissions over the 3-hour peak emissions period.

For situations in which a facility begins production of a new product that constitutes a slight increase in the maximum organic HAP processing rate, we are no longer requiring a repeat performance test. Specifically, if the organic HAP processing rate for the new product is no more than 10 percent greater than the organic HAP processing rate established during the most recent compliance test, a repeat performance test is not required. We believe this change is appropriate for several reasons. The HAP content of some raw materials used in refractory products manufacturing can vary slightly from shipment to shipment, and those