

variations may be beyond the control of the user. The net increase in controlled emissions from a source that uses a material with a slightly higher HAP content would most likely be within the measurement error of the test method. On the other hand, if the organic HAP processing rate for the new product is more than 10 percent greater than the operating limit for the maximum organic HAP processing rate, a new compliance test must be performed.

### C. Control Device Monitoring and Operation

In the final rule, we have added the requirement that owners or operators of affected sources that are controlled with a catalytic oxidizer must have the catalyst activity level checked at least every 12 months and take any necessary corrective action, such as replacing the catalyst, to ensure that the catalyst is performing as designed. We continue to require catalyst bed inlet temperature monitoring. However, we believe this additional requirement is needed because, unlike thermal oxidizers, catalytic oxidizer performance cannot be ensured simply by monitoring the operating temperature. Catalyst beds can become poisoned and rendered ineffective without any apparent change in operation. Requiring an annual check of catalyst activity will help to identify catalyst poisoning and other potential performance problems before they become serious. An activity level check can consist of passing an organic compound of known concentration through a sample of the catalyst, measuring the percentage reduction of the compound across the catalyst sample, and comparing that percentage reduction to the percentage reduction for a fresh sample of the same type of catalyst.

We have made several changes to the monitoring requirements for new clay refractory products kilns. We have added monitoring requirements for kilns controlled with a DLA. Specifically, owners or operators of affected kilns are required to monitor continuously the pressure drop across the DLA, check the limestone feed hopper daily to ensure that limestone is free flowing, check the limestone feeder setting daily, use the same source of limestone as was used during the most recent performance test, and maintain records that demonstrate that the source of limestone has not changed. We have eliminated the requirement to monitor the fabric filter inlet temperature for affected clay refractory kilns that are controlled with a DIFF or a DLS/FF. Finally, we have eliminated the requirement to monitor

the water injection rate for kilns that are controlled with a DLS/FF.

We have also included in the final rule a provision to allow owners and operators of affected continuous process kilns to bypass the control device and continue operating the kilns during periods when the control device is offline for scheduled maintenance. However, the owner or operator must request approval from the permitting authority before taking the control device out of service. The owner or operator must minimize the time periods during which the control device is offline and must also minimize HAP emissions from the affected sources during these periods. The owner or operator must also maintain records of all maintenance activities and the time when the control device was offline. In addition, procedures for minimizing HAP emissions during periods when the control device is offline must be incorporated into the OM&M plan for the kiln.

### D. Definitions

We have modified the definitions of *refractory product* and *research and development process unit*, and have added definitions for *dry limestone adsorber*, *period of natural gas curtailment or supply interruption*, *resin-bonded refractory products*, *pitch-bonded refractory products*, and *redundant sensor*. We also deleted the incorporation by reference of the publication "Industrial Ventilation: A Manual of Recommended Practice."

## IV. Summary of Responses to Major Comments

### A. MACT Floors

*Comment:* One commenter pointed out that more than 30 refractory products manufacturing plants have closed permanently over the past 3 years. The commenter stated that the MACT floors used to develop the proposed rule are based on data that no longer reflect the current status of the industry. The commenter believes that it is improper for us to use the old data while the industry is in the process of realignment. In response to a request by us, the same commenter provided a list of 35 plants that have closed recently.

*Response:* We have reviewed the list of 35 recently closed plants provided by the commenter and among those plants, we considered only one, the North American Refractories plant in Womelsdorf, PA, to be a major or synthetic area source of organic HAP. However, we were aware of the impending closure of that particular facility before we determined the MACT

floors for the proposed rule, and we did not include affected sources at that plant in our MACT floor analyses. Because we based our determination of the MACT floors for sources of organic HAP emissions only on major and synthetic area sources and none of those plants has closed, the closing of the 35 plants has no impact on the MACT floor analyses used to develop the proposed or final NESHAP.

### B. Emission Limits

*Comment:* One commenter stated that the proposed combustion efficiency limit has no relationship to the MACT floors for thermal process sources of organic HAP. He believes that the proposed combustion efficiency limit is an arbitrary limit based on theoretical calculations and is not supported by the data. The commenter also stated that we cannot identify any plants that have met a 99.8 percent combustion efficiency. He believes that the proposed combustion efficiency limit cannot be met by existing sources; consequently, the stringency of the 99.8 percent combustion efficiency limit will force all affected facilities to meet the alternative proposed limit on THC. The same commenter stated that he has been informed by control device vendors that sources would have to operate well above the MACT floor level of control to meet a 99.8 percent combustion efficiency limit. Another commenter agreed that the combustion efficiency limit will force the industry to meet the alternative THC limit. Both commenters also stated that most of the thermal oxidizers currently used in the refractory products manufacturing industry would not be able to meet the outlet exhaust gas limitation of 3 percent carbon dioxide that is a prerequisite for choosing the combustion efficiency limit compliance option. One commenter added that sources controlled with catalytic oxidizers would be unable to meet the 99.8 percent combustion efficiency limit.

The same two commenters also commented on the appropriateness of a combustion efficiency limit. One of the commenters stated that he contacted thermal oxidizer vendors and a trade association that represents control device manufacturers and vendors, all of whom stated that they were unfamiliar with combustion efficiency. They indicated that thermal oxidizer performance guarantees invariably are written in terms of destruction and removal efficiency (DRE). The other commenter concurred that vendors offer performance guarantees in terms of DRE and not in terms of combustion