

the proposed rule on the industry. The commenter challenged the assumptions presented in the algorithms on which the cost analysis is based, charging that they bear no reasonable relationship to reality in the industry and that the APCD strategies are not actually feasible for implementation. The commenter also argued that the economic analysis of the MACT floor for reconstructed and new ceramic clay roller kilns does not support DIFF-, DLS/FF- or WS-based controls.

We acknowledge the commenters' statements about the high cost effectiveness of the proposed rule. As discussed previously, we have revised the rule, as proposed, such that it is now less costly. Under today's final rule, new clay ceramic roller kilns will not be subject to emission limits. In addition, we have subcategorized clay ceramics tunnel kilns by design capacity. New and reconstructed tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) will be required to meet emission limits based on the levels of control that can be achieved by a DLA. In addition to the changes mentioned above, we have added a work practice standard that requires facilities to use natural gas, or an equivalent fuel, to fire all clay ceramics kilns, except during periods of natural gas curtailment or other periods when natural gas is not available. The costs associated with this change are minimal. Based on these changes, there will be no control cost for new roller kilns and the control cost for new and reconstructed tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) of fired product and tunnel kilns that would be considered reconstructed but for 40 CFR 63.8540(f)(1) or 40 CFR 63.8540(f)(2) will be lower than at proposal. Most of the new tunnel kilns constructed will likely be in this smaller size category. New clay ceramics tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) are still required to meet emission limits based on the use of DIFF, DLS/FF or WS technologies. However, the HF and HCl emission limits are slightly less stringent than at proposal (due to the inclusion of new test data). The PM emission limit for new clay ceramics tunnel kilns with design capacities equal to or greater than 9.07 Mg/hr (10 tph) is unchanged from the proposed requirements for all new kilns.

Public health benefits are likely to be realized due to the reduced emissions and reduced exposures to emissions as a result of today's final rule. However,

we have not quantified these public health benefits because we are not required to do so under the CAA.

We disagree with the commenter's statement that the economic impacts of the rule on the ceramic tile industry have been grossly underestimated. Based on revisions to the final rule as described above, we expect minimal impacts on existing sources, based on recordkeeping and reporting costs associated with the work practice standard for existing kilns, and we estimate that only one new source will be impacted by the final rule in the first five years following promulgation. Therefore, the EIA at proposal overestimated the impacts on the industry. Thus, it is very unlikely that the one new source affected by the rule or the addition of a work practice standard that requires all kilns to be fired with natural gas (or equivalent fuel) will be able to influence industry prices or foreign competition.

E. Test Data and Emission Limits

One commenter implied that there are no data to suggest that HCl is emitted from ceramic tile kilns. Another commenter stated that limits for HCl and PM are irrelevant and that we should only set an emission limit for HF (the largest single HAP emitted from the kilns). The commenter believes that there is no need to establish an emission limitation for HCl or PM because any control system designed to achieve the required HF reduction will also reduce HCl and PM. One commenter disagreed that PM is an adequate surrogate for HAP metals emissions.

We are required by section 112(d) of the CAA to establish emission limits for listed HAP emitted from major sources. Section 112(b) of the CAA lists HCl and various HAP metals. We believe that PM is an adequate surrogate for HAP metals for the reasons discussed in section II.F of this preamble.

We acknowledge that we have no test data that demonstrate that HCl is emitted from clay ceramics kilns. However, we do have data that show that chlorides are present in many clay materials, and that HCl is emitted from various types of clays when heated above a minimum temperature. The data include raw material analyses and emission test reports of HCl emissions for the BSCP manufacturing, lightweight aggregate manufacturing, and kaolin processing industries. Because of the similarities in raw materials used in those industries and the raw materials used to manufacture clay ceramics, we assume that clay ceramics kilns also emit HCl.

We agree that HF emission rates from clay ceramics kilns generally are greater than the corresponding emission rates for HCl or metal HAP. We also agree that emission controls that are used to meet the emission limits for HF are likely to reduce emissions of HCl and SO_x as well. However, as stated previously, the CAA requires us to set emission limits for all listed HAP based on MACT. The data indicated that there are existing controls on similar sources that achieve significant reductions in emissions of HCl and PM (as a surrogate for metal HAP). Therefore, we are required to establish emission limits for HCl and metal HAP. We also note that, if HCl and PM emissions from any affected source are negligible or are automatically controlled by HF control devices, complying with the HCl and PM emission limits should not present a problem.

F. Monitoring Requirements

1. Fabric Filter Inlet Temperature

Two commenters disagreed with the proposed fabric filter inlet temperature monitoring requirement. One commenter stated that control systems using hydrated lime are generally known to have increased HCl and HF removal when temperatures increase. The other commenter suggested that the only limit on fabric filter inlet temperature should be based on manufacturer's specifications for protection of the equipment.

We have eliminated the requirement for monitoring fabric filter inlet temperatures on affected kilns that are controlled with a DLS/FF or DIFF. We believe that the other monitoring requirements (e.g., lime feed rate monitoring and periodic VE checks) that we have incorporated into today's final rule are adequate for ensuring continuous compliance with the emission limits.

2. Bag Leak Detection Systems and Visible Emissions

One commenter suggested changes to the amount of bag leak detector alarm time that must be recorded. We have not changed the requirements for recording bag leak detection system downtime. However, we have incorporated into today's final rule an option for owners and operators of affected kilns that are controlled with a DLS/FF, or DIFF to perform daily VE checks rather than using bag leak detection systems. Visible emissions checks are required for DLA-controlled kilns. Today's final rule also includes a provision for decreasing the frequency of VE checks provided no VE are observed.