

are work practice standards that we believe that all facilities are already meeting, no air quality impacts are projected for existing sources. To project air quality impacts for new sources, we assumed that one sanitaryware tunnel kiln (3.6 Mg/hr (4 tph) capacity) equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. We estimate that by implementing the rule, HF emissions from this new source will be reduced by 4.9 Mg/yr (5.4 tpy), HCl emissions will be reduced by 1.0 Mg/yr (1.1 tpy), and HAP metals emissions will be reduced by 0.028 Mg/yr (0.031 tpy). We also estimate that PM and SO₂ emissions from the new kiln will be reduced by 3.9 Mg/yr (4.3 tpy) and 13 Mg/yr (14 tpy), respectively.

Secondary air impacts associated with today's final clay ceramics rule are direct impacts that result from the operation of any new APCD. The generation of electricity required to operate the control device on the projected new kiln will result in 0.09 tpy of NO_x emissions in the first year following promulgation of the rule. The electricity was assumed to be generated by natural gas-fired turbines.

B. What Are the Water and Solid Waste Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, no water and solid waste impacts are projected for existing sources. Our analyses are based on the use of DLA for controlling new kilns and, therefore, no water impacts are projected for new sources. To project solid waste impacts for new sources, we assumed that one sanitaryware tunnel kiln equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. The solid waste disposal impacts that result from the use of DLA will include the disposal of spent limestone. We calculated the solid waste by taking the difference between the amount of limestone charged into the DLA and the amount of reacted limestone and then adding the amount of reaction products and PM captured. We estimate that implementing the rule will result in the generation of 290 Mg/yr (320 tpy) of solid waste from the new source.

C. What Are the Energy Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, no energy impacts are projected for existing sources. To project

energy impacts for new sources, we assumed that one sanitaryware tunnel kiln equipped with a DLA will begin operation at the beginning of the first year following promulgation of the rule. Energy impacts consist of the electricity needed to operate the DLA. Electricity requirements are driven primarily by the size of the fan needed in the control device. We estimate the increase in energy consumption that would result from implementation of the rule to be 710 gigajoules per year (670 million Btu per year).

D. Are There Any Additional Environmental and Health Impacts?

Reducing HAP emissions under today's final rule will lower occupational HAP exposure levels. The operation of APCD may increase occupational noise levels.

E. What Are the Cost Impacts?

Because the only requirements for existing sources under today's final rule are work practice standards that we believe that all facilities are already meeting, cost impacts projected for existing sources are based only on recordkeeping and reporting requirements associated with the work practice standard. These costs are \$1,193 per year for each of the eight major source facilities, and the total annual cost to the industry for existing sources is \$9,533. To project costs for new sources, we assumed that one sanitaryware tunnel kiln, equipped with a DLA, will be built during the first year following promulgation. We estimate the capital costs associated with implementation of the rule to be \$510,000 for new sources. The capital costs include the purchase and installation of DLA and monitoring equipment. We estimate the annualized costs associated with implementation of the rule to be \$170,000 per year for new sources. The annualized costs include annualized capital costs of the control and monitoring equipment, operation and maintenance expenses, emission testing costs, and recordkeeping and reporting costs associated with installing and operating the DLA.

We calculated the cost estimates using cost algorithms that are based on procedures from EPA's OAQPS Control Cost Manual (EPA 450/3-90-006, January 1990) and cost information provided by the BSCP industry and control device vendors. We estimated costs by developing model process units that correspond to the various sizes of kilns found at clay ceramics manufacturing facilities.

F. What Are the Economic Impacts?

We did not prepare a revised economic impact analysis for the clay ceramics industry because the requirements of the final rule will result in a decrease in cost impacts on the industry. Specifically, new and reconstructed roller kilns, which would have been subject to emission limits in the rule as proposed, are not subject to emission limits in the final rule. In addition, the requirements for clay ceramics tunnel kilns with design capacities less than 9.07 Mg/hr (10 tph) are based on control with a DLA rather than the more costly DIFF, DLS/FF, or WS systems on which the proposed rule was based.

The goal of the economic impact analysis is to estimate the market response of clay ceramics manufacturing producers to today's final rule and to determine the economic effects that may result due to the final rule. Because the MACT floor for existing clay ceramics kilns is based on firing natural gas, or an equivalent fuel, and all clay ceramics kilns for which we have data are fired by natural gas or propane, the compliance costs for existing sources associated with today's final rule consist only of recordkeeping and reporting costs and are minimal. The aggregate price of ceramic products is, therefore, expected to remain the same. Because the prices of ceramic products are not expected to change due to today's final rule, there are no projected changes in domestic production, domestic consumption, or foreign trade. Therefore, no economic impacts on existing major sources are expected from today's final rule.

Unlike existing sources, new and reconstructed tunnel kilns used to produce clay ceramics will face positive compliance costs associated with the installation and operation of APCD. We estimate that one new 3.6 Mg/hr (4 tph) capacity tunnel kiln will be constructed in the sanitaryware industry during the first 5 years after the rule is promulgated. Industry compliance costs associated with this kiln are expected to be less than 0.1 percent of industry value of shipments for the sanitaryware industry. No level of cost-to-sales for sanitaryware kilns could be developed due to the diversity of product types that they produce.

VIII. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action