

selected HAP (*i.e.*, HCl, hydrogen fluoride, lead, and nickel) will be reduced by 58,500 tons per year for existing units and 73 tons per year for new units. Emissions of HCl will be reduced by 42,000 tons per year for existing units and 72 tons per year for new units. Emissions of mercury will be reduced by 1.9 tons per year for existing units and 0.006 tons per year for new units. Emissions of PM will be reduced

by 565,000 tons per year for existing units and 480 tons per year for new units. Emissions of total selected non-mercury metals (*i.e.*, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium) will be reduced by 1,100 tons per year for existing units and will be reduced by 1.4 tons per year for new units. In addition, emissions of sulfur dioxide are established to be reduced by 113,000 tons per year for

existing sources and 110 tons per year for new sources. A discussion of the methodology used to estimate emissions and emissions reductions is presented in "Estimation of Baseline Emissions and Emissions Reductions for Industrial, Commercial, and Institutional Boilers and Process Heaters" in the docket.

TABLE 2.—SUMMARY OF EMISSIONS REDUCTIONS FOR EXISTING AND NEW SOURCES

[Tons/yr]

| Source | Subcategory | HCl | PM | Non mercury metals ^a | Mercury |
|----------------------|-------------------------------|--------|---------|---------------------------------|---------|
| Existing Units | Large solid units | 42,100 | 560,000 | 1,100 | 2 |
| | Small solid units | 0 | 0 | 0 | 0 |
| | Limited use solid units | 0 | 2,800 | 8 | 0.002 |
| | Liquid units | 0 | 0 | 0 | 0 |
| | Gaseous units | 0 | 0 | 0 | 0 |
| New Units | Large solid units | 70 | 31 | 0.01 | 0.006 |
| | Small solid units | 2.4 | 440 | 1.4 | 0.0006 |
| | Limited use solid units | 0.2 | 11 | 0.02 | 0.00002 |
| | Liquid units | 0 | 0 | 0 | 0 |
| | Gaseous units | 0 | 0 | 0 | 0 |

^a Includes arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

B. What Are the Water and Solid Waste Impacts?

The EPA estimated the additional water usage that would result from the MACT floor level of control to be 110 million gallons per year for existing sources and 0.6 million gallons per year for new sources. In addition to the increased water usage, an additional 3.7 million gallons per year of wastewater would be produced for existing sources and 0.6 million gallons per year for new sources. The costs of treating the additional wastewater are \$18,000 for existing sources and \$2,300 for new sources. These costs are accounted for in the control costs estimates.

The EPA estimated the additional solid waste that would result from the MACT floor level of control to be 102,000 tons per year for existing sources and 1 ton per year for new sources. The costs of handling the additional solid waste generated are \$1.5 million for existing sources and \$17,000 for new sources. These costs are

also accounted for in the control costs estimates.

A discussion of the methodology used to estimate impacts is presented in "Estimation of Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHA" in the Docket.

C. What Are the Energy Impacts?

The EPA expects an increase of approximately 1,130 million kilowatt hours (kWh) in national annual energy usage as a result of the proposed rule. Of this amount, 1,120 million kWh would be from existing sources and 13 million kWh are estimated from new sources. The increase results from the electricity required to operate control devices installed to meet the proposed rule, such as wet scrubbers and fabric filters.

D. What Are the Control Costs?

To estimate the national cost impacts of the proposed rule for existing

sources, EPA developed several model boilers and process heaters and determined the cost of control equipment for these model boilers. The EPA assigned a model boiler or heater to each existing unit in the database based on the fuel, size, design, and current controls. The analysis considered all air pollution control equipment currently in operation at existing boilers and process heaters. Model costs were then assigned to all existing units that could not otherwise meet the proposed emission limits. The resulting total national cost impact of the proposed rule is 1,790 million dollars in capital expenditures and 860 million dollars per year in total annual costs. The total capital and annual costs include costs for testing, monitoring, and recordkeeping and reporting. Table 3 of this preamble shows the capital and annual cost impacts for each subcategory. Costs include testing and monitoring costs, but not recordkeeping and reporting costs.

TABLE 3.—SUMMARY OF CAPITAL AND ANNUAL COSTS FOR NEW AND EXISTING SOURCES

| Source | Subcategory | Estimated/ projected number of affected units | Annualized cost (10 ⁶ \$/yr) | Capital costs (10 ⁶ \$) |
|----------------------|-------------------------------|---|---|--|
| Existing Units | Large solid units | 3,481 | 814 | 1,605 |
| | Small solid units | 327 | 0 | 0 |
| | Limited use solid units | 249 | 23 | 105 |
| | Liquid units | 7,251 | 0 | 0 |
| | Gaseous units | 46,892 | 0 | 0 |