pathogens. Using a combination of engineering and work practice controls, personal protective clothing and equipment, training, medical follow-up of exposure incidents, vaccinations (where appropriate) and other provisions, the OSHA regulations minimize or eliminate health risk as a result of occupational exposure to bloodborne pathogens. The EPA believes these DOT and OSHA regulations will provide sufficient protection from potential increases in exposure to those wastes.

A. Air Impacts

As discussed earlier, impacts are presented assuming the more likely "switching scenario." Baseline emissions and emissions under the proposed EG based on the switching scenario are presented in Tables 9a and 9b.

TABLE	9a.–	-BASELINE		≣ E	ЕМІ	SSIONS
COMP	ARED	WITH	Ем	ISSIO	NS	AFTER
IMPLE	MENTA	ATION	OF	THE	Ем	IISSION
GUIDELINES (WITH SWITCHING)						

[Metric Units]

Pollutant	Units	Baseline	After EG with switching
PM CO CDD/ CDF.	Mg/yr Mg/yr kg/yr	11,300 13,100 285	272 207 0.11
HC1	Mg/yr	41,200	777
SO ₂	Mg/yr	766	479
No _x	Mg/yr	5,040	3,160
Pb	Mg/yr	77.5	0.97
Cd	Mg/yr	5.62	0.14
Hg	Mg/yr	58.6	3.67

TABLE 9b.—BASELINE EMISSIONS COMPARED WITH EMISSIONS AFTER IMPLEMENTATION OF THE EMISSION GUIDELINES (WITH SWITCHING)

[Eng	lish	Uni	ts]	
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Pollut- ant	Units	Baseline	After EG with switching
PM CO CDD/ CDF.	Tons/yr Tons/yr Lb/yr	12,400 14,500 628	300 228 0.23
HC1 SO ₂ NO _x Pb Cd	Tons/yr Tons/yr Tons/yr Tons/yr Tons/yr	45,400 844 5,560 85.5 6.20	857 528 3,490 1.07 0.16
Hg	Tons/yr	64.6	4.05

The proposed guidelines would reduce nationwide emissions of PM by 11,000 megagrams per year (Mg/yr) (12,100 tons per year (tons/yr)) from the estimated emission levels under the typical existing control or the "regulatory baseline" of 11,300 Mg/yr (12,400 tons/yr). This reduction represents an overall decrease of about 98 percent of baseline PM emission levels in the absence of the proposed emission guidelines.

Nationwide emissions of CO would be reduced by 12,900 Mg/yr (14,200 tons/ yr) from the estimated emission levels under the regulatory baseline of 13,100 Mg/yr (14,500 tons/yr). This reduction represents an overall control level of about 98 percent for CO emissions.

The proposed guidelines would reduce nationwide emissions of dioxins/furans by 284.8 kilograms per year (kg/yr) (627.9 pounds per year (lb/ yr)) from the estimated emission levels under the regulatory baseline of 284.9 kg/yr (628.1 lb/yr). Dioxin/furan emissions would be reduced by over 99 percent from the regulatory baseline.

Nationwide emissions of HCl would be reduced by 40,400 Mg/yr (44,600 tons/yr) from the estimated emission levels under the regulatory baseline of 41,200 Mg/yr (45,400 tons/yr). This reduction represents a decrease of about 98 percent in HCl emissions from the regulatory baseline.

Nationwide emissions of SO_2 and NO_X would be reduced by 287 Mg/yr (316 tons/yr) and 1,880 Mg/yr (2,070 tons/yr), respectively, from the estimated emission levels under the regulatory baseline of 766 Mg/yr (844 tons/yr) for SO_2 and 5,040 Mg/yr (5,560 tons/yr) for NO_X . These reductions equate to an overall emissions decrease of about 37 percent for both SO_2 and NO_X .

As a result of today's proposal, nationwide emissions of Pb, Cd, and Hg would be reduced by 76.6 Mg/yr (84.4 tons/yr), 5.48 Mg/yr (6.04 tons/yr), and 54.9 Mg/yr (60.5 tons/yr), respectively, from the estimated emission levels under the regulatory baseline of 77.5 Mg/yr (85.5 tons/yr) for Pb, 5.62 Mg/yr (6.20 tons/yr) for Cd, and 58.6 Mg/yr (64.6 tons/yr) for Hg. These reductions equate to overall control levels of about 99 percent for Pb, 97 percent for Cd, and 94 percent for Hg.

B. Water and Solid Waste Impacts

Under the proposed guidelines, no significant water pollution impacts are projected because the emission control technologies upon which the emission limits are based do not produce a wastewater stream. However, to the extent that wet scrubber systems could be used to comply with the proposed emission limitations, water pollution impacts could be more significant. As discussed in section VI of this notice, the Agency solicits information regarding water pollution impacts associated with the use of wet scrubber systems.

With regard to solid waste impacts, about 1.43 million Mg (1.58 million tons) of medical waste are burned annually in existing MWI's producing about 143,000 Mg/yr (158,000 tons/yr) of solid waste (bottom ash) disposed of in landfills. The addition of acid gas control using dry lime injection, and CDD/CDF and Hg control using activated carbon injection, would increase the quantity of solid waste for final disposal by adding baghouse ash to the amount of bottom ash already generated under the regulatory baseline. In addition, switching to onsite alternatives to incineration would result in an increase in solid waste for final disposal because the nonincineration treatment methods do not reduce the volume of waste as much as incineration.

Under the switching scenario, the amount of solid waste ultimately sent to landfills would increase by about 631,000 Mg/yr (696,000 tons/yr). This quantity includes the increase in ash from the APCD's and the increase in waste that is treated and landfilled without being incinerated. Compared to municipal waste, which is disposed in landfills at a rate of over 91 million Mg/ yr (100 million tons/yr), the increase in solid waste from the implementation of the MWI emissions guidelines is insignificant. Therefore, no adverse solid waste impacts are anticipated under the proposed guidelines.

C. Energy Impacts

The emission control technologies upon which the emission limits are based would require additional energy consumption for all existing MWI's. Under the switching scenario, it is not clear whether energy consumption will increase, decrease, or remain the same. Alternatives to incineration require energy to operate. However, information is not available to estimate whether alternatives use more or less energy than MWI's. It is expected that the increase in energy consumption resulting from the switching scenario will be less than the increase under the no-switching scenario.

The estimates of energy impacts assuming all existing MWI's install air pollution control (no-switching scenario) include additional auxiliary fuel for combustion controls and additional electrical energy for operation of the add-on control devices. The proposed guidelines would increase total national usage of natural gas for combustion controls by about 100 million cubic meters per year (MMm³/