Like the MACT floor for intermittent MWI's, the MACT floor for new batch MWI's consists of the emission levels that are achieved with a combination of two control technologies. The 2-sec combustion control is used to control emissions from many existing batch MWI's, and FF/PB is used to control emissions from at least one batch MWI; no other add-on control technologies have been identified on batch units. The FF/PB achieves lower PM, Pb, Cd, and HCl emissions than 2-sec combustion control, but because CDD/CDF formation can occur in a FF/PB system, 2-sec combustion control alone achieves lower CDD/CDF emissions. Equivalent emission levels for other pollutants are achieved with both technologies. The MACT floor for all pollutants can be achieved with the use of another technology: DI/FF without carbon injection. Except for CDD/CDF, this technology achieves the same emission levels as FF/PB, and the CDD/CDF emissions are the same as those for 2sec combustion control alone. Therefore, the MACT floor for new batch MWI's consists of the emission levels that are achievable with DI/FF without carbon injection.

Unlike continuous and intermittent MWI's, there is a level of control more effective than the MACT floor for batch MWI's. This level of control is achieved by adding carbon to the DI/FF system. The result is further reduction in CDD/ CDF emissions along with significant Hg control. The incremental national annual cost of this option is about \$740,000, or about \$170/ton of waste burned nationwide. The national annual costs increase by only about 3 percent. Therefore, the level of control achieved by the DI/FF system with carbon injection is considered MACT for batch MWI's.

As discussed earlier, NO_X control has not been demonstrated on MWI's and

acid gas controls are not effective in reducing SO₂ emissions from MWI's. Therefore, MACT reflects no control of NO_X and SO₂. However, because the Act requires EPA to set numerical emission limits for NO_X and SO_2 , the limits are proposed at 210 ppmv for NO_X and 45 ppmv for SO₂, the highest uncontrolled NO_X and SO₂ emission rates measured during the EPA test program. The EPA specifically solicits comments on the emission limits of 45 ppmv set for SO₂ and 210 ppmv set for NO_X and whether these levels accurately reflect uncontrolled emissions of NO_X and SO₂ at MWI's.

J. MACT Floor and MACT for Existing MWI's

1. MACT Floor for Existing MWI's

Section 129 of the Act requires that emission guidelines reflect MACT. According to section 129, the degree of reduction in emissions that is deemed achievable for existing MWI's must not be less stringent than the average emission limitation achieved by the best performing 12 percent of units in the category. In setting MACT standards, the EPA must establish the MACT floor for a source category because the Act specifies that each standard must be at least as stringent as the floor for the relevant source category. For the MWI source category, the EPA did not have sufficient emissions data to determine the MACT floor. Data was only available from 7 MWI facilities (8 emissions tests), to represent 3,700 existing MWI's. As a result, the EPA examined air quality permits and State regulations to determine the emission limitations achieved by the best-performing 12 percent of units in each subcategory.

Emission limitations were determined for the estimated total MWI population by examining air quality permits where available and by assuming that the estimated population of MWI's for which permits were not available are subject to emission limitations specified by State regulations. It was assumed that all MWI's are either achieving their permit limits or are achieving their State regulatory emission limits.

For each subcategory, the emission limitations for each pollutant were ranked from most stringent to least stringent and the MACT floors for each pollutant were determined by averaging the emission limitations of the top 12 percent of units in that subcategory. In some cases, the number of MWI's subject to specific emission limitations did not comprise 12 percent of the population in a subcategory. Where this occurred, numerical emission limits were established for the MACT floor by including uncontrolled emission values for the additional number of MWI's necessary to make up 12 percent of the existing population.

The MACT floors define the minimum level of emissions control. Beyond these levels, in determining what performance levels should be adopted in the guidelines as MACT, the Administrator is to consider the costs, any nonair-quality health and environmental impacts, and energy requirements associated with such emission limits.

An estimated 338 continuous, 3,018 intermittent, and 336 batch MWI's exist nationwide. For each of these subcategories, the MACT floor emission levels for each pollutant are calculated as the averages of the emission limitations reported by the top 12 percent of units in that subcategory. The top 12 percent of units in each subcategory is represented by the 41 continuous, 363 intermittent, and 41 batch MWI's with the most stringent permit or state regulation limitations. The MACT floor emission levels for each pollutant in each subcategory are presented in Table 12.

TABLE 12.—MACT FLOOR EMISSION LEVELS FOR EXISTING MWI'S

Pollutant	MWI type		
	Continu- ous	Intermittent	Batch
PM, mg/dscm	46	69	69
CO, ppmv	76	90	91
CDD/CDF, ng/dscm	1,619	12,906	14,606
HC1, ppmv	43	115	911
SO ₂ , ppmv	284	414	1,166
NO _x , ppmv	257	216	220
Pb, mg/dscm	8.7	11.8	23.1
Cd, mg/dscm	0.56	1.8	3.4
Hg, mg/dscm	4.0	15.6	18.5