between MWI and/or APCD operating parameters and emissions, the proposed standards and guidelines include MWI and/or APCD operating parameters to be monitored. Maximum or, in some cases, minimum values for these parameters are established during the initial performance test to demonstrate compliance with the emission limits. Once these values are established, a facility operating outside of these values is considered to be in violation of the emission limits. The following paragraphs discuss methods available to demonstrate continuous compliance with emission limits for each pollutant.

a. HCl, CO, Opacity. Continuous emission monitoring systems measuring HCl, CO, and opacity are available to determine continuous compliance with the emission limits for these pollutants. Opacity and CO CEMS's are widely used. On the other hand, a CEMS for HCl is not widely used and has not been commercially proven to be economically and technically feasible for MWI's. Also, Federal performance specifications for a HCl CEMS have not been established to date. The EPA test data from facilities equipped with a dry scrubber system followed by a fabric filter show a direct relationship between HCl sorbent (lime) flow rate and HCl removal efficiency. A decrease in the sorbent flow rate results in a decrease in HCl removal efficiency and therefore higher HCl emissions. Also, for a given amount of chlorine content in the waste stream, the amount of waste charged to the incinerator could be directly related to the amount of HCl emitted. An increase in the amount of waste charged would result in higher HCl emissions. For facilities equipped with a dry scrubber followed by a fabric filter, the minimum HCl sorbent flow rate, the maximum charge weight, and the maximum hourly charge rate would be established during the initial performance test for HCl and would be monitored to demonstrate continuous compliance with the emission limit for HCl

While the proposed standards and guidelines do not require a CEMS for monitoring HCl emissions, the EPA specifically solicits further information on the availability, reliability, accuracy, status of development, and costs for continuous HCl monitors.

b. *Dioxins and Furans.* Currently CDD/CDF emissions cannot be measured using a CEMS. While CO is occasionally mentioned as a surrogate for CDD/CDF emissions, it is not a precise indicator of CDD/CDF emissions. However, good combustion conditions minimize CDD/CDF formation and lower CO emissions indicate that good combustion is occurring. Therefore, continuous compliance with the emission limit for CO based on the CO CEMS output would ensure good combustion conditions and minimized CDD/CDF formation.

As discussed elsewhere, the proposed standards and guidelines for CDD/CDF are based on add-on air pollution control, which reduces CDD/CDF emissions even more than good combustion. Air pollution control system operating parameters have been correlated with CDD/CDF emissions. For MWI's using a dry scrubber system followed by a fabric filter, the operating parameters correlated with CDD/CDF emissions are CDD/CDF sorbent flow rate and temperature measured at the inlet to the PM control device. The EPA test data on a DI/FF system with carbon injection show a direct relationship between carbon flow rate and CDD/CDF removal efficiency. A decrease in the sorbent flow rate results in a decrease in CDD/CDF removal efficiency and therefore higher CDD/CDF emissions. It has been shown that the optimum temperature window for fly ash catalyzed CDD/CDF formation is between 300° and 600°F. Available data indicate that cooling flue gases and operating the PM control device below the temperature window where formation may occur minimizes formation of CDD/CDF in the flue gas. A minimum value for the CDD/CDF sorbent flow rate and a maximum value for the temperature measured at the inlet to the PM control device would be established during the initial performance test for CDD/CDF and would be monitored to demonstrate continuous compliance with the emission limit for CDD/CDF.

c. Mercury. Mercury emissions cannot be measured using a CEMS. The EPA test data from facilities equipped with a dry scrubber followed by a fabric filter show a direct relationship between Hg sorbent (activated carbon) flow rate and Hg removal efficiency. A decrease in the sorbent flow rate results in a decrease in Hg removal efficiency and therefore higher Hg emissions. Also, depending on the presence of Hg in the waste stream, the amount of waste charged could be directly related to the amount of Hg emitted. An increase in the amount of waste charged could result in higher Hg emissions. For facilities equipped with a dry scrubber followed by a fabric filter, the minimum Hg sorbent flow rate, the maximum charge weight, and the maximum hourly charge rate would be established during the initial performance test for Hg and monitored to demonstrate continuous

compliance with the emission limit for Hg.

Hg. While the proposed standards and guidelines do not require a CEMS for monitoring Hg emissions, the EPA specifically solicits further information on the availability, reliability, accuracy, status of development, and costs for continuous Hg monitors. The EPA is requesting data that could be used to determine whether Hg monitors measure all Hg or just certain species of Hg and if only certain species of Hg are measured, how such a monitor could be used in determining compliance with the Hg emission limit.

d. *PM*, *Pb*, and *Cd*. Particulate matter, Pb, and Cd emissions cannot currently be measured using a CEMS. The EPA has not, to date, identified surrogate pollutants or MWI/APCD operating parameters that could be monitored to measure compliance. The Agency is currently working to develop applicable MWI/APCD operating parameters for lead, cadmium, and PM that are sufficiently representative, accurate, precise, reliable, frequent, and timely to determine whether a deviation from the proposed emission limits has occurred, thus enabling owners and operators to certify whether compliance with the proposed emission limits is continuous or intermittent. The Agency will include operating parameters for the pollutants lead, cadmium, and PM in the final rule. Today the Agency is requesting comment on appropriate operating parameters for lead, cadmium, and PM that will satisfy the requirements of enhanced monitoring and also requests any associated supporting data.

e.  $SO_2$  and  $NO_X$ . No monitoring requirements are proposed for  $SO_2$  and  $NO_X$  because the emission limits are based on uncontrolled emission levels.

f. *Fugitive Emissions*. Continuous compliance with the emission limits for fugitive emissions would be demonstrated by conducting a performance test using Method 9 at least once per month when bottom ash is removed from the incinerator and when fly ash is removed from the add-on air pollution control device.

g. Other Air Pollution Control Systems. To accommodate MWI's using an APCD other than a dry scrubber followed by a fabric filter, provisions are included in the standards and guidelines for petitioning the Administrator to allow monitoring of alternative operating parameters to demonstrate continuous compliance with the emission limits for CDD/CDF, Hg, HCl, and/or opacity. The petition must include a discussion illustrating the relationship between the alternative operating parameters and emissions of