Question 90: Does any refiner use an on-line particulate emissions (PM) analyzer to measure PM concentration and/or particle size distribution in the flue gas? Are any of these analyzers using continuous emission monitoring systems (CEMS)? How reliable and accurate have these systems been?

Emerson Domingo (Sunoco)

Sunoco currently has a particulate matter (PM) analyzer in one location on the stack of a Wet Gas Scrubber. It is there to measure Filterable PM only, not particle size distribution. This was installed as a requirement of a local environmental permit. In general, the permit required that a PM analyzer be installed on a trial basis and collect data for a period of months and compare the results to stack testing data. During this trial period the analyzer is not considered a CEM. Afterwards, if the PM analyzer data is found to be representative of actual PM emissions, then the PM analyzer could be deemed as a CEM.

During the trial period, Sunoco has conducted several stack tests, representing a full range of emission concentrations for which there were no unit issues and no analyzer issues. The testing represented a wide range of unit rates and PM emissions. Sunoco has found the PM analyzer data to be inconsistent with stack testing data taken. Since then, Sunoco has been asked to work directly with the PM analyzer vendor to verify these initial findings.

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