

EXHIBIT 9
to Sierra Club Comments

CONTINUOUS EMISSION MONITORING

Second
Edition

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CONTINUOUS PARTICULATE MONITORING

Monitoring systems that measure particulate mass concentration on a continuing basis have been developed and are installed in many sources. Their application has been proven in Europe, where continuous particulate monitors are required for industrial boilers greater than 50 MW and for municipal and hazardous waste incinerators, as well as other facilities (Breton, 1990; Martin, 1996). In Europe, flue gas opacity is not regarded as a viable regulatory parameter. Instead, particulate emission standards are based in terms of mass concentration units of milligrams per cubic meter. Continuous particulate mass measurements are inherently more quantitative, enabling more precise control to be effected in plant operations.

In the United States, particulate mass emissions are measured only periodically by conducting a manual reference test, such as EPA Test Method 5 or 17. Due to the planning and preparations necessary for these manual methods, the source is usually notified prior to the actual testing. This lead time allows the source to optimize both operations and control equipment performance in order to pass the tests. Consequently, the tests may not be truly representative of actual source performance. This was understood by the U.S. Congress in the development of the 1990 Clean Air Act Amendments, where requirements for enhanced monitoring were established. Enhanced monitoring, translated into the Compliance Assurance Monitoring (CAM) rule, requires either parameter monitoring or the application of CEM systems to ensure compliance with emissions standards. Further, the U.S. EPA Office of Solid Waste has required that continuous particulate monitors be installed on hazardous waste incinerators (U.S. EPA, 1997) and has proposed Performance Specification