Plant managers, engineers, and safety personnel have long recognized the need for controlling particulates from their stacks. There are two key items which are important to know, the rate of emissions and the particulate or fly ash particle size. The United States Environmental Protection Agency (U.S. E.P.A.) is primarily concerned with the rate of emissions and has instituted a number of test methods to help control this.

The first step in stack emissions testing is to obtain a representative sample from the exhaust stream. There are a number of companies available to assist with proper sampling and measurement of the rate of emissions.

Micromeritics Analytical Services’ role is to determine the particle size of the emission so that engineers can make informed decisions when designing and testing appropriate control devices, such as bag houses, scrubbers, cyclones, or electrostatic precipitators. Additional information such as identification of the particulates and hydrodynamic settling velocities are available as well.

The analytical technique used to measure particle size is called electrical sensing zone, more commonly known as the “Coulter principle.” This technique counts the number of particles and their respective size by the volume displaced by each particle. The results typically are reported as both incremental volume and incremental number distributions.

For more information, contact Micromeritics Analytical Services at 770.662.3630. Please use part number 538-50 for this special test procedure.