

**AN OVERVIEW OF THE CONTINUOUS EMISSION MONITORING TECHNOLOGIES AND
EQUIPMENT INSTALLED BY THE USA ELECTRIC UTILITY INDUSTRY TO COMPLY WITH
THE US EPA ACID RAIN AIR EMISSIONS MONITORING PROGRAM**

J. R. Jernigan

Marketing, Thermo Electron Corporation, Cary, USA

Since early 1993 more than 2,800 new continuous emissions monitoring systems (CEMS) have been installed and certified by the USA electric utility industry to meet the requirements of the US Environmental Protection Agency (EPA) 40 CFR Part 75's "Acid Rain Rule", and recently the "NO_x Budget Trading Programs." Much experience has been gained during the Acid Rain Monitoring Program by the electric utility industry regarding the most reliable emission monitoring technologies and analyzer manufacturers. Accordingly, an overview of the emission monitoring technologies and analyzer manufacturers used by the electric utility industry for complying with the CEMS regulations in 40 CFR Part 75 should be helpful to international industrial combustion facilities being required to install new CEMS to meet current pollutant emissions regulations. This report will present CEMS Monitoring Plan information extracted and compiled from the second quarter 2003's Electronic Data Reporting files submitted to the EPA. Monitoring Plan data identifies the source, generating units, the emissions monitored, sample acquisition method, analyzer manufacturer, model, etc. The information to be compiled and presented will include, the monitoring technologies, sample acquisition methods, and monitor manufacturers for all the electric utilities submitting EDR's for the second quarter of 2003. Additionally, this report will present by measurement technology and manufacturer the total number and percent of total of the SO₂, NO_x, CO₂, O₂ analyzers and flue gas flow rate monitors.