Second Annual Survey of the Most Recent BACT/LAER Determinations for Combustion Turbines by State Air Pollution Control Agencies

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ABSTRACT

In early 2002, a survey was conducted of state air pollution control agencies to determine the most recent Best Available Control Technology (BACT) and Lowest Achievable Emission Rate (LAER) determinations for natural gas combustion turbines used in electric power generation facilities. BACT and LAER for both simple cycle and combined cycle modes of turbine operation were evaluated.

This paper reports on the results of a follow up survey conducted in early 2003. It is intended to address the need for current BACT/LAER determinations used by state air pollution agencies and private industries.

The survey was conducted of state air pollution control agencies in the eastern half of the United States. Each state was queried on the most recent BACT/LAER analysis for simple and combined cycle combustion turbines; compliance averaging time applicable to these determinations; the types of control technologies required by each state agency; the cost per ton of pollutant removed threshold for economic feasibility; and the total number of BACT/LAER determinations made by each state during the 12 months preceding the survey. The survey focused on the following pollutants: PM_{10}, NOx, CO, SO_2 and hydrocarbons.

Results of the 2003 survey are discussed and compared to the results of the 2002 survey. Trends in these BACT/LAER determinations are noted including the changes in the percentage of the most recent BACT/LAER determinations that are included in U.S. EPA's RACT/BACT/LAER Clearinghouse database.