

# Natural Gas Turbine Tuning and Compliance Test Program

## Background

As new natural gas units are brought on line they often run into scheduling delays and various over-runs. These units must be tuned for optimum performance and then tested to determine if they meet performance guarantees and compliance requirements. Often the tuning requires low-level detection of compounds such as nitrogen oxides ( $\text{NO}_x$ ), total hydrocarbons (THC), carbon dioxide ( $\text{CO}$ ) and various other compounds that can be difficult to detect at low ranges like formaldehyde, ammonia, hexane, toluene alongside filterable and condensable particulate matter (FPM and CPM).

Our client required the ability to measure all of these compounds accurately at low levels, be flexible with our schedule both for delays and last minute mobilizations, and limit cost over-runs.

## CleanAir's Approach

CleanAir utilized a varied and experienced test crew that changed size based on the day-to-day needs of the sampling program. Our engineers and field technicians demonstrated aptitude with a variety of test procedures such as EPA Methods 1-5, 9, 19, 25A, 202, 320, conditional test method 13 (CTM-13), and also Method 0030 of SW-846.

## Results

CleanAir was able to adapt to the tuning schedule that ran over the course of several months, mobilizing crews as appropriate with varied skill sets to meet the needs of the client. Successful tuning was accomplished and the facility was able to meet its compliance objectives.

## Summary

Natural gas turbine tuning, performance guarantee and compliance test program requiring low-level compound detection.

