

Performance Guarantee Testing on a Retrofit Air Quality Control System (AQCS) at a Coal Generating Facility

Background

A utility was retrofitting multiple units with advanced AQCS systems. Four units were modified to include updated Wet Flue-Gas Desulfurization (WFGD), Pulse Jet Fabric Filters (PJFF), a Powdered Activated Carbon (PAC) system, and Dry Sorbent Injection (DSI). Additionally, the induced draft (ID) fans were upgraded to account for the new system.

The OEM was tasked with determining if each of these components met the performance guarantee and also if the units were meeting their Title V requirements.

CleanAir's Approach

CleanAir devoted a team of more than 20 field engineers and technicians for each of these units. While onsite CleanAir tested for a variety of constituents including Filterable Particulate Matter (FPM), Condensable Particulate Matter (CPM), sulfur dioxide (SO_2), sulfur trioxide (SO_3), speciated mercury (Hg and Hg^{+2}), and hydrogen chloride (HCl). CleanAir's involvement was not limited to emissions testing as pressure drop, power consumption, fuel sampling, scrubber process sampling, and noise measurements were all conducted as well.

Results

Using the expertise of our experience field team members, CleanAir was able to perform each of these performance tests with minimal delays. Despite the large crew size, CleanAir was flexible in the test program and was able to mitigate problems due to facility delays and was able to test over a federal holiday to expedite the program.

Summary

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