



COMPLETE PRECIPITATOR REBUILD
FOR A MAJOR KENTUCKY UTILITY
PECO CASE HISTORY



Plant Data:

Company: Major Kentucky Utility

O.E.M.: Joy Western

Additional Data:

- Precipitator unit is comprised of 2 separate casings set in parallel. The 500 MW Boiler is tangentially fired, operating on high sulfur Kentucky coal. Flow is approx. 2,000,000 ACFM through the precipitator casings.

Scope of Work:

A complete replacement of all of the internal components of the precipitator as well as the addition of a penthouse and weather enclosure was ordered by the utility. PECO utilized a 12" plate spacing design with rigid discharge electrodes to replace the old double wire weighted electrodes and 9" spacing. This change reduced capital costs and increased collection efficiency. Also included in the project was the design and installation of the new support insulators, anti-sway assemblies, T/R sets, automatic voltage controllers, current limiting reactors, inlet and outlet perforated diffuser plates, rapping systems, purge-air systems, and process controls. Finally, the key interlock system was updated for safety purposes.

Performance Guarantee:

- 0.12 lb. / MBTU maximum outlet loading over full range of operation.

Scope of Supply:

- 16 T/R sets
- 276 PECO Electromagnetic Impact Rappers
- 720 PECO Collecting Plates
- 16 Current Limiting Reactors
- 16 Automatic Voltage Controllers
- 3,132 PECO Rigid Discharge Electrodes

This was an extensive 8 week outage. PECO served as the general contractor in addition to the design and furnish responsibilities. The total parts count for the main items was: (16) T/R Sets, (276) PECO Electromagnetic Impact Rappers, (720) Collecting Plates, (16) current limiting reactors, (16) automatic voltage controllers, and (3132) rigid discharge electrodes.

Result:

PECO began delivery in mid-March, 1994 and installation started March 28, 1994. The project was completed on May 24th, 1994.

PECO not only completed the entire rebuild project on-time within the 8-week outage scope, but also far exceeded the set performance guarantee of 0.12 lb/ MBTU maximum outlet loading over full range of operation. The unit still continues to operate efficiently and successfully at present day as a PECO Retrofitted ESP.



27881 Clemens Road, Westlake, OH 44145

P: 440.899.3888 F: 440.899.3890

www.peco-fgc.com