

PGT-06-12 Site visit of Energy Conservation and Environment Protection Technology—Application of Plasma Ignition Technology in Power Generation

Project

China Guodian will host a series of site visits regarding the plasma ignition technology to highlight reliable energy conservation and environment protection technology and its application in China. The goal of the project is to help power generators learn the benefit of the plasma technology.

Plasma Ignition and Combustion Stabilization System: Directly igniting pulverized coal, the system can replace fuel oil and ensure ignition and stable combustion for pulverized-coal boilers. This system has found successful application in 270 of pulverized-coal boilers, with coals covering lean coal, bituminous coal and lignite; unit capacity of 50MW–1000MW, both tangential-fired and wall-fired types; milling systems including indirect-fired and direct-fired types; mills including spheroidal roller mill, ring-roller mill, ball race mill with double inlets and outlets, roller pulverizer, and fan mill, etc.

Participation

Participants will primarily be plant engineers and representatives from power generators and some government representatives may also attend the site visits.

Objectives

The goal of this activity is for power generators to learn the technologies that are demonstrated at the site visits on oil free ignition and stable operation that will result in energy saving.

Performance Indicators:

- Economy, the operation cost for the plasma system (oil free) is only 10–20% of the conventional ignition system (ignition with oil). For a newly built boiler 5,000 tons of oil can be saved during test run.
- Safety: avoid the possible fire and accidents caused by the ignition of oil.
- Environment protection: avoid the smoke from the stack because ESP cannot be used during the oil ignition.

Milestones

It is anticipated that up to five site visits will occur during 2006 and 2008. The first visit is anticipated to be near the end of this year depending on the interests of the other Partner countries. Site visits may include more than one site and also include technical presentations and discussions. Each trip will include follow-up reports.

Location

The company and the workshop are in Beijing and Yantai, Shandong province respectively, and the reference plants are in China.

Resources

Visitors will pay air flight and hotel costs, hosts will cover on-site costs. Multilateral financing may be necessary to fund equipment/technology upgrades.