



Reduction of nitrogen oxide emissions in a thermoelectric plant

Complete solutions that are applied throughout its value chain

SITUATION

Burning any fossil fuel produces nitrogen oxides, compounds that are harmful to the environment. To generate electricity, thermoelectric plants burn gas, fuel oil or coal. The nitrogen oxides produced by this combustion leave the ambient air through the chimney of a steam generator.

In this context, the Federal Electricity Commission (CFE) operates under official regulations that require, to restrict its emissions, among which are nitrogen oxides. To comply with these regulations, in September 2012, the José López Portillo thermoelectric plant (Nava, Coahuila) hired Apollo. As of that date, in unit 4 of the plant, the application of an additive began, which reduces emissions of nitrogen oxides through non-selective catalytic reduction (SNCR).

SOLUTION

Gradually, the treatment was implemented in units 1, 2 and 3, with the following results: a) Reduction of at least 25% ppmv (parts per million by volume) of nitrogen oxide emissions. B) Null increase in the emission of total suspended particles. C) Normal operating conditions (without plugging or fouling) in the steam generators and stability in their thermal behavior. D) Ammonia emissions below 10 ppmv.

According to the latest evaluation carried out by CFE, the treatment in unit 1 managed to reduce the emission of nitrogen oxide by 30%, with respect to the baseline. In unit 3 a decrease of 27% was obtained. And although CFE did not evaluate units 2 and 4, both showed benefits similar to those presented in units 1 and 3.

The treatment by Apollo has proven to be effective, since it has allowed to maintain a stable operating regime, which exceeds the environmental requirements of the standard that regulates the emission of nitrogen oxides. If you would like more information about these services, please contact the Apollo specialists, who are ready to assist you.



EXPERIENCE

30% REDUCTION

of nitrogen oxide emissions



STABLE OPERATION

without plugging or fouling



COMPLIANCE

and overcoming the demands of the
official environmental standard

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