FGD Scrubber Nozzle Clogging Eliminated

Power – Fossil
Chesterton 346
Case Study 037 LMRO

Challenge

At this fossil power plant, flue gas is wet scrubbed with a fine, 13% $Ca(OH)_2$ slurry to remove acidic compounds. The spray head for the slurry rotates at 8,000 rpm. Deposits create an imbalance and force a shut down due to excess vibration. Calcium scale also builds up and clogs spray nozzles, reducing efficiency of the scrubber.

To clean the elements, the system normally had to be shut down. The replacement effort required three men working for two hours.

Solution

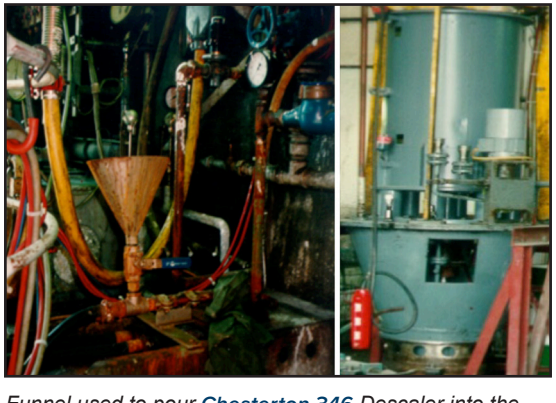
Every week the $Ca(OH)_2$ valve is closed and 20 liters of **Chesterton 346 Descaler and Chemical Cleaner** is poured through the system to remove any deposits.

Chesterton 346 is an acid-based, biodegradable cleaner that dissolves rust and scale while protecting the base surface. Special inhibitors allow the **Chesterton 346** to remove scale without damaging the base metal.

Results

The units have not had to be changed out since instituting this new procedure. The yearly savings including labor are approximately $175,000.

Scrubber at a fossil fuel power plant



*Funnel used to pour **Chesterton 346** Descaler into the Spray Nozzle*

Cleaned spray nozzle

A.W. Chesterton Company
860 Salem Street, Groveland, MA 01834 USA

EN36553.02
02/18