



## BIOMASS POWER PLANT

CASE STUDY NR 7 • GERMANY

# IMPROVEMENT OF SO<sub>2</sub> AND HCL EMISSION CONTROL PERFORMANCE BY USING A DRY PROCESS

## THE CHALLENGE

In Germany, the operators of a secondary wood-fired power plant (German wood classification A1-A4) observed that emission levels of SO<sub>2</sub> and HCl were gradually increasing. Furthermore, they realized that at times their flue gas cleaning system would reach its technical limits due to variations in flue gas composition.

## THE LHOIST SOLUTION

We recommended continuous monitoring of the flue gas pollutants, as well as of other relevant process parameters. Samples of the final reaction products from the power plant were then taken to Lhoist laboratories for analysis.

Based on this data, we proposed changing the dosing technology, the control parameters and the operating conditions of the fabric filter. This would accommodate the variations in flue gas composition.

We also proposed the use of Sorbacal® SP sorbent. Trials at other power plants using dry sorbent injection had demonstrated that Sorbacal® SP greatly improved removal rates of acid gas.

## THE BENEFITS

The trials using Sorbacal® SP along with the proposed operational modifications showed that the power plant could attain high levels of reliable emission control performance in line with German regulations. Concentration levels of SO<sub>2</sub> were consistently reduced to → 50 mg/Nm<sup>3</sup> and levels of HCl to → 10 mg/Nm<sup>3</sup>.

The power plant operators decided to fully implement the Lhoist recommendations.

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