

PROJECT DESCRIPTION

***Pollution Abatement System
GENERAL ATOMICS CORP.
Lübben, Germany***

PROJECT SCOPE

The project consisted in collection, transport and treatment of waste emission coming from ammunition destruction plant, to comply with Federal regulation in Germany.

Mesar / Environair was mandated to provide engineering and supply of a scrubbing system to a temporary facility of General Atomics in Germany.

At Lübben plant, the waste stream to be treated comes from two catalytic fluidized beds and a rotary kiln. The pollutants to be controlled were HCl, NO_x, and SO_x.



The treatment system consists in a quench unit followed by three packed towers in series. After gas cooling and saturation, the HCl and SO_x are removed in a caustic scrubber. NO_x is removed in the two next columns, using one stage oxidation with an alkaline hypochlorite scrubber followed by a Na₂S solution washing in the last scrubber.

Other key equipment like recirculation pump, metering pump, gas reheater and fan were supplied to insure a safe system design.

RESULTS

The system was installed in December 1993 as scheduled. Performance trials in winter 1994 showed that the scrubbing system consistently operates, and the plant was then in compliance with federal regulation (TA-Luft standards).

The system efficiencies were 98% on NO_x, 99% on SO_x and 98% on HCl, and the chemical demands were optimized using advanced control system.