



COMBINED PROCESS WITH SORBACAL® TO REDUCE EMISSIONS AND LOWER COSTS

THE CHALLENGE

An energy recovery plant had two incineration lines when the trial was executed, each processing 5.7 metric tons/hour. It was equipped with semi-wet acid gas purification processes supplemented with a lime slurry feed.

But the changing nature of the waste incinerated there, was raising pollutant levels. To fully comply with emissions legislation the site needed to adapt the treatment processes.

THE SOLUTION

Together with the customer, it has been decided to supplement the plant's existing semi-wet method with a downstream injection of dry Sorbacal® SP.

Developed by Lhoist to treat acid gases in dry processes, this high-porosity calcium hydroxide has a specific surface area and pore volume significantly greater than those of a traditional Sorbacal®H hydrated lime.

An on-site trial was implemented to determine the performance of this so called "3/4 dry" process. The program ran for over 50 days of operation.

THE BENEFITS

The trial demonstrated the effectiveness of this approach. The 3/4 dry process, supplied with 20% of Sorbacal® SP in weight, made it easier to achieve compliance with the site's emission limit values (ELVs). This was due to an average reduction in sorbent consumption in the range of 10 to 13%. It highlighted a potential annual gain of €10,000 to €40,000 per year under normal operating conditions.



WASTE INCINERATOR

THE BENEFITS

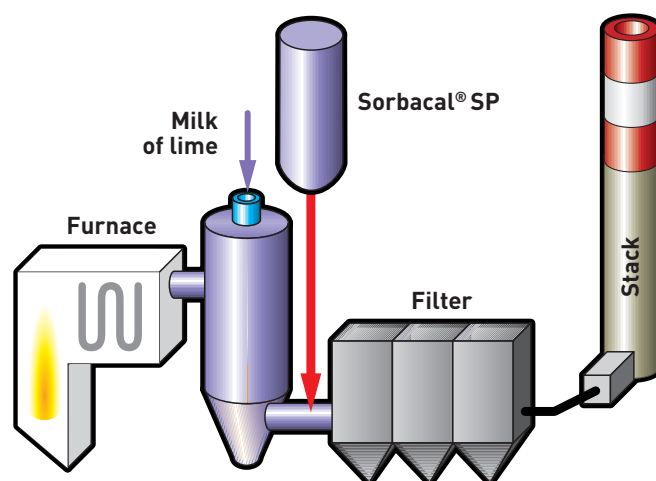
Furthermore, tests showed that the new process would enable the customer to increase the proportion of industrial waste incinerated, while still fully complying with the site's ELVs.

Properties	Sorbacal® SP	Sorbacal® H
BET specific surface area (m ² /g)	> 40	15 - 20
BJH pore volume of 17 to 1,000 Å [cm ³ /g]	> 0.20	± 0.08
Content of Ca(OH) ₂ by weight	95%	95%

The 3/4 dry process

Combining the efficiency of a semi-wet process with the flexibility of a dry system, this process offers several advantages.

- > Low reagent consumption
- > Highly effective pollutant capture
- > Great flexibility



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Find the best solution for your business by contacting one of our experts in your country or region via the contact page on www.sorbacal.com.



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