

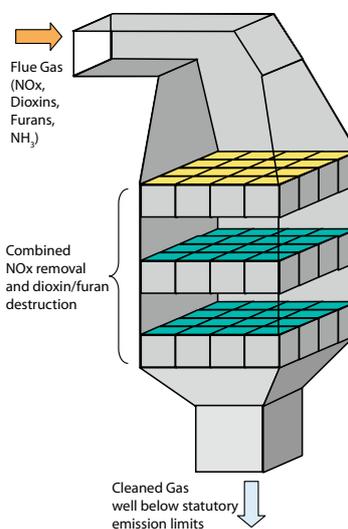
SINOx[®] Catalysts for Waste Incineration Plants

An expanding field of application for catalytic flue-gas cleaning is the thermal recycling of household and municipal waste. Combusted gases from waste incineration plants contain poisonous dioxins and nitrogen oxides.

We manufacture catalysts to reduce NOx as well as catalysts optimized to destroy dioxins and furans.

Both flue gas cleaning processes can be economically combined in the same SCR reactor.

Typical operating temperature ranges: 170°C - 300°C (335°F - 570°F)

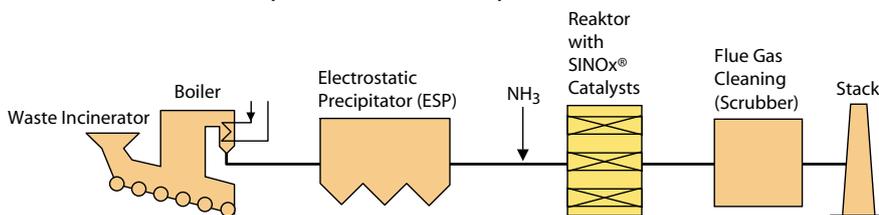


>>> Different Installations within a Waste Incineration Plant

The catalyst can be installed in a variety of configurations within a waste incineration plant:

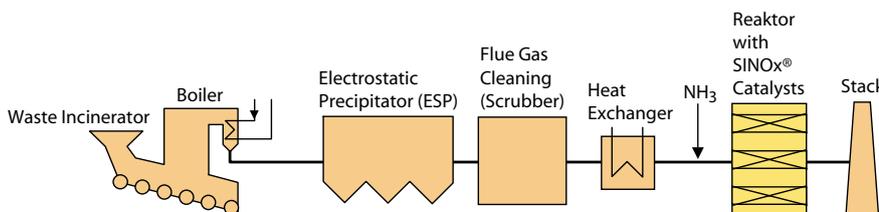
- downstream of the electrostatic precipitator (ESP)
- downstream of the flue gas scrubber.

DeNO_x on the "hot side" (SCR downstream ESP):



In this arrangement, the flue gas from the boiler undergoes particulate dust removal with an ESP before entering the SCR. The advantage is an energy-saving process because the need for reheating is eliminated. The flue gas temperature is sufficient for the catalytic reduction. Since 1998, we have gained significant positive experience with this configuration.

DeNO_x on the "cold side" (Tail End Arrangement):



In this arrangement, the catalyst is placed at the very end of the flue gas cleaning equipment, after the ESP and flue gas scrubber. The advantage of this configuration is an extended lifetime and reduced volume of catalyst since the scrubbed flue gas at this point has few particulates. On the other hand flue gas has to be reheated to the proper catalyst operating temperature. Reheating can be achieved using an off-gas heat exchanger and an additional burner.

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