



GORE® Filtration Products

ENERGY

Case history

GORE® REMEDIA® Catalytic Filter Bags – Municipal Solid Waste Incinerator, Hangzhou, China

CHALLENGE

The state-owned municipal solid waste incineration facility in the city of Hangzhou had been using GORE® Filter Bags since 2004 to control particulate emission. For more than a decade, they used the GORE Filter Bags with consistent results and great satisfaction. However, a new national standard (GB18485-2014) for pollution control in municipal solid waste incineration was introduced, demanding dioxin emission levels of 0.1 ng TEQ/nm³ – the same as the EU standard. To meet the new standard, plant management was looking for a quick but long-term and reliable solution – one requiring minimal investment, process change and operation interruptions.

SOLUTION

Plant management looked to Gore, its existing and reliable supplier, for a solution. Gore's application support team suggested replacing the existing particulate filters bags with GORE® REMEDIA® Catalytic Filter Bags: a long-term solution to the challenge of meeting the stricter dioxin emission standard that was reliable and quick to implement. The original filter bags were replaced by GORE REMEDIA Filter Bags in 2013 and 2014, with no additional equipment or process changes needed.

RESULT

With the implementation of GORE® REMEDIA® Catalytic Filter Bags, the plant has achieved dioxin emission levels far below the EU standard of 0.1 ng TEQ/nm³. Additionally, GORE® REMEDIA® Filter Bags have provided the plant with other benefits:

- Eliminated the use of powdered activated carbon injection for dioxin control
- Achieved low-dust emission of less than 10 mg/Nm³
- No increase in pressure drop
- Plant experiences higher productivity and fewer maintenance-related shutdowns



DATA BOX

Application	Domestic waste incineration
Process	Dry deacidification
Plant capacity	450 tons/day
Gas flow rate	60,000 Am ³ /hr (per line)
Operating temperature	170–230 °C
Total filter area	1,400 m ² (per line)
Concentration of dioxin emissions	0.023 ng TEQ/Nm ³ (average of three lines)
Differential pressure	< 1,200 Pa
Filter material	GORE® REMEDIA® Catalytic Filter Bags

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