

ENERGY

Case history

GORE[®] REMEDIA[®] Catalytic Filter Bags – Medical Waste Incineration Facility, Pennsylvania, USA

CHALLENGE

An incineration plant in Pennsylvania uses a rotary kiln incinerator with a downstream pollution control system to treat medical waste. In 2009, the EPA introduced a new emission guideline (EGs) for rotary kiln incinerators. In October 2014, the EGs was enforced at the plant, whose existing pollution control system complied with all components of the EGs except dioxin/ furans emission (D/F). The facility was required to demonstrate D/F compliance with the new EGs, and management urgently searched for a long-term solution that combined financially viable technology and minimal process changes.

SOLUTION

After reviewing several options, including activated carbon injection, the facility decided to implement GORE® REMEDIA® Catalytic Filter Bags as a solution to the challenge. With help from the Gore application support team, GORE® REMEDIA® Filter Bags were installed in the existing baghouse in January 2015, just three months after the EGs was enforced — an example of a simple, winning solution that was very quick to implement and didn't require an additional financial investment.

Result

GORE[®] REMEDIA[®] Catalytic Filter Bag technology helped the plant surpass the new emission guideline for dioxin/furan using its existing process and pollution control system without compromising compliance with other components of the new EGs. Additionally, the filter bags had a much lower cost of ownership than activated carbon injection, another technology considered by the plant. With GORE[®] REMEDIA[®] Filter Bags, the plant met the required guidelines, saved money compared to alternative solutions and did so without making any process changes.



DATA BOX

Application	Medical waste incineration
Gas flow rate	20,400 Nm³/hr
Operating temperature	182 °C
Total filter area	683 m ²
Differential pressure	1700 Pa
Bag life	5+ years of expected life
Filter material	GORE [®] REMEDIA [®] Catalytic Filter Bags

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