



We Energies, Rothschild, Wisconsin

Dry Sorption with Ca(OH)₂ Downstream Circulating Fluidized Bed Boiler Firing Non-treated (Clean) Biomass

Crude Gas Values Downstream Boiler

Particles	< 3,000	mg/Nm ³ dry (1.3 gr/dscf)
HCl	< 15	mg/Nm ³ dry (10 ppm)
HF	< 15	mg/Nm ³ dry (18 ppm)
SO ₂	< 33	mg/Nm ³ dry (13 ppm)
PCDD/PCDF	< 1	ng/Nm ³ dry
Hg	< 0.20	mg/Nm ³ dry

Guarantee* (Based on 2011 MACT prior to Re-Consideration by EPA)

Particles	< 1.3	mg/Nm ³ dry (0.0006 gr/dscf)
HCl	< 10	mg/Nm ³ dry (6.7 ppm)
HF	< 1	mg/Nm ³ dry (1.2 ppm)
SO ₂	< 12	mg/Nm ³ dry (5 ppm)
PCDD/PCDF**	< 0.1	ng/Nm ³ dry
Hg**	< 30	µg/Nm ³ dry

*Converted from equivalent lb/MMBtu guarantee values at max conditions.

Additive Powder Quality

Ca(OH)₂ Surface Area > 18 m²/g

Temperature Downstream Boiler

150 °C (300 °F)

Volume Flow

303,000 Nm³/h humid (188,600 scfm humid)

Test Result – Filterable Particulate
0.0004 grains / dscf
 (0.9 mg/Nm³-dry)

