

### Power Generation

**Project Name:** Biomass Boiler

**Location:** Mora, Sweden

#### Furnace Information

**Furnace Type:** Biomass Boiler

**Fuel Type:** Woodchips and Bark

**Substrate:** Aged Castable, Fire Brick and Boiler Tubes

**Operating Temp:** 850 - 1100°C (1562 - 2012°F)

**Background:** A project was undertaken in January 2008 in Mora Sweden at a biomass combustion district heating plant owned and operated by E.ON Sverige AB.

#### Application Information

Castable refractory application consisted of cleaning followed by application. The metal process tubes were lightly wire brushed and cleaned with a liquid cleaning system followed by application with a special tube internal application system. This applications occurred January 2008.

#### Emisshield® Benefits

- >10 % increase in output (Steam).
- Fuel change to least expensive fuel resulted in reduced operating costs.
- Reduced NO<sub>x</sub> air emissions by >20%
- Reduced CO air emissions by 40%-50%
- Reduced CO<sub>2</sub> air emissions by 10%
- Particulate – reduced 20+%
- Significant reduction in flyash generation thus reduced haulage costs.
- Reduced maintenance, down time, soot formation and refractory slagging



Before Emisshield®  
Solution