

### Power Generation

**Project Name:** Burner Tips  
**Location:** Confidential per Customer

#### Furnace Information

**Burner Type:** Stainless Steel low-NOx Burner Tips  
**Substrate:** Stainless Steel  
**Operating Temp:** 2003°F (1095°C)  
**Background:** The Stainless Steel burner tips are installed in a coal fired power plant. The uncoated burner tips fail after 6 months and have to be replaced.

#### Application Information

The stainless steel burner tip was grit blasted then sprayed with Emisshield®. The burner tips were then sintered at 900°C (1500°F) for 30 minutes.

#### Emisshield® Benefits

Using optical pyrometers, employees discovered the Emisshield® coated tips had a surface temperature of only 150°C (300°F). When taken out of service, the coated burner tips appeared cleaner, had less coke formation and less breaks in the welds. Emisshield® prolonged the life of the burner tips by more than 3x – saving the customer money by not having to bring the unit down as often to be cleaned and/or replaced.

Front View of Burner Tip

Back View of Burner Tip

Welds of Burner Tip

Uncoated



Coated with Emisshield®

