

Hydrocarbon and Chemical Processing

Project Name: Vinyl Chloride Monomer (VCM)

Location: Baton Rouge, LA

Furnace Information

Furnace Type: EDC Cracking Furnace - PetroChem

Fuel Type: Natural Gas

Substrate: 15 year old Aged Fire Brick and Incoloy Process Tubes

Operating Temp: 1400 - 1450°F (760 - 788°C)

Background: Furnace temperature is controlled by furnace exit temperature. Customer was looking for overall thermal improvements in unit.

Application Information

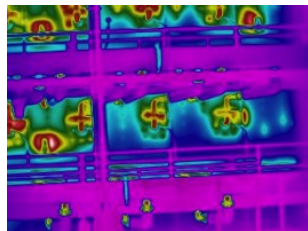
Emisshield® was applied to Incoloy process tubes (serpentine), to the hard refractory sidewalls and ceramic fiber roof. This application occurred in November 2007.

Emisshield® Benefits

- Energy Savings of 5%
- Production Increase of 6%
- Reduced coking – doubled time between decoking cycles
- Coke was powdery and much easier to remove than typical coke
- Improved cracking reaction / conversion
- Improved thermal response of furnace
- Reduced air emissions
- Decreased thermal stress and oxidation on process tubes
- Significant reduction in outside furnace skin temperature

(Customer has coated two additional units)

Before Emisshield® System



After Emisshield® System

