

Hydrocarbon and Chemical Processing

Project Name: Terrace Wall Ammonia Reformer

Location: Woodward, Oklahoma

Furnace Information

Furnace Type: 1970s – vintage Foster-Wheeler twin cell terrace wall reformer

Fuel Type: Natural Gas

Substrate: 2600F Ceramic Fiber Modules

Operating Temp: 1800 °F (982 °C)

Background: The Ceramic fiber modules coated with Emisshield® to protect the modules from shrinking and extend their service temperature.

Application Information

In July 2004, Emisshield® was sprayed on the modules after construction dust was removed. No rigidizer was applied.

Emisshield® Benefits

This ammonia reformer saw a decrease in shrinkage and more uniform heating.

Figure 1

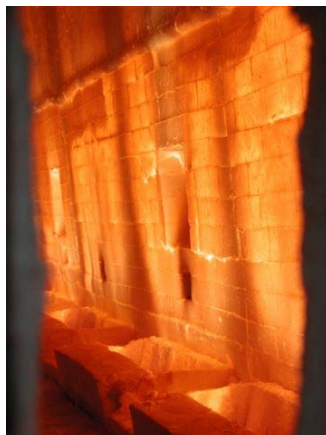


Figure 2



Figure 1 shows the IFB-lined lower sidewall in the upper terrace before being replaced with the Emisshield® - coated ceramic fiber. In figure 2, the color of the modules is darker and more even, showing that the Emisshield® - coated modules radiate more heat than the uncoated IFBs and that the radiation is more uniform. After eight months of service, the modules showed no sign of shrinkage and were not ablated.