# BELZONA® 1511/1591 TAKE THE HEAT

ID: 1183

Industry: Power Customer Location: Tennessee Valley Authority, North

Alabama U.S.A.

Application: GSS-Gaskets, Seals and Shims Application Date: November 2003

Substrate: Cast steel

Products: <div>div>div>div>Belzona® 1511 (Super HT Metal)<div>Belzona® 1591 (Ceramic XHT)</div>

#### **Problem**

Steam cuts in the metal diaphragm. Welding would distort the flange and a short outage caused them to come to Belzona for an unconventional alternative.









## **Photograph Descriptions**

\* Eroded flange before repairs , \* Belzona® 1511 being used to build back the edges and steam cut areas , \* Belzona® 1511 built back to original profile and ready to machine , \* Belzona® 1591 coated after the two pieces put together for machining ,

### **Application Situation**

The LP turbine flange on a steam generator turbine.

### **Application Method**

Application carried out in accordance with Belzona Know-How System Leaflet GSS-6.

Belzona® 1511 used to rebuild damage (up to 1/2"), then machined to profile before coating with Belzona® 1591.

#### **Belzona Facts**

Time for welding was too long. Welding may distort the flange. Belzona 10% the cost of the alternative. After five years it was inspected and only minor touch up required.

