

BELZONA REPAIRS A HYDROELECTRIC TURBINE

ID: 713

Industry: Power Customer Location: Hydroelectric Power Plant, France

Application: CEP-Centrifugal Pumps Application Date: February 2001

Substrate: Steel

Products: *Belzona® 1311 (Ceramic R-Metal) Belzona® 1341 (Supermetalglide) Belzona® 5811 (Immersion Grade) ,

Problem

Erosion, corrosion and cavitation of the stay vanes and the casing had induced vibration into the turbine and was also making the turbine run inefficiently.



Photograph Descriptions

* 1. The Francis turbine 2. The extent of the damage 3. The completed application 4. Turbine after 11 years in service,

Application Situation

Francis Turbine

Application Method

The application was carried out in accordance with Belzona Know-How System Leaflets CEP-8 & CEP-10.

Belzona Facts

Once back in service the turbine once again achieved its maximum efficiency. The coatings were also chosen to protect the turbine from further damage. An inspection of the turbine following 11 years of service showed that the repair was in excellent condition with only minor damage to the coating, due to erosion from entrained solids, being observed.