# **Know-Howin** Action

Vol.XXI No.22

# BELZONA REPAIRS A HYDROELECTRIC TURBINE

#### **CUSTOMER**

Hydroelectric Power Plant, France

#### **APPLICATION DATE**

February 2001

### **APPLICATION SITUATION**

Francis Turbine

#### **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.

#### **PRODUCTS**

Belzona® 1311 (Ceramic R-Metal) Belzona® 1341 (Supermetalglide) Belzona® 5811 (Immersion Grade)

# **SUBSTRATE**

Steel

#### APPLICATION METHOD

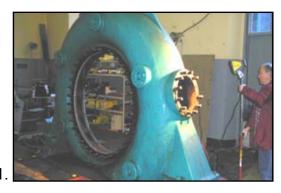
The application was carried out in accordance with Belzona Know-How System Leaflets CEP-8 & CEP-10.

# **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 7 years of service showed that the repair was in excellent condition with only minor damage to the leading edges, due to impact of solids, being observed. This was repaired using Belzona® 2000 series elastomers.

## **PICTURES**

- 1. The Francis turbine
- 2. Inside the turbine
- 3. The extent of the damage
- 4. The completed application









For more examples of Belzona Know-How In Action, please visit http://khia.belzona.com



UK • USA • Canada • China www.belzona.com

