Know-Howin Action



Vol.XXVIII No.16

BELZONA PROTECTS PELTON TURBINE NOZZLE HEAD

CUSTOMER

Hydro power plant, Kaunertal, Austria

APPLICATION DATE

May 2003

APPLICATION SITUATION

Pelton turbine with an output of 266MW and head of about 800m. The nozzle head is the leading part of the nozzle assembly which regulates the water flow rate through the turbine.

PROBLEM

The nozzle head (hat) is exposed to a very high flow rate with a water pressure of 80 bar and with glacial debris in the water. Protection required to prevent erosion.

PRODUCTS

Belzona 2141 (ACR Fluid Elastomer)

SUBSTRATE

Steel

APPLICATION METHOD

Application was carried out in accordance with Belzona System Leaflet VPF-2. After preparing surface by grit blasting (80 micron profile achieved) Belzona 2141 system was applied at 1mm thickness.

BELZONA FACTS

The Belzona system was originally applied in May 2003 and when inspected in February 2014 after more than 10 years in service was found to be in perfect condition.

PICTURES

- 1. Nozzle head after grit blasting
- 2. Application of Belzona 2141
- 3. Completed application before installation in May 2003
- 4. After more than 10 years of operation Belzona 2141 in perfect condition









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