## BELZONA INTERNAL PIPE REFURBISHMENT TO INTAKE RELIEF VALVE TUBES

**CUSTOMER**
Hydro Power Station, UK

**APPLICATION DATE**
September 2019

**APPLICATION SITUATION**
Belzona Protective coating in two separate valve chambers in submerged water service. The river water level had to be dropped by the temporary closure of up stream gate valves / sluices and to a level which allowed safe access to gain entry to the relief valve tubes.

**PROBLEM**
Each intake relief valve tube was leaking from a step between the tube and the valve causing water ingress to the interior area of the turbine hall. The tubes had been previously coated with Belzona 1321 around twenty years prior and unable to assess condition due to both being underwater.

**PRODUCTS**
Belzona 1111 (Super Metal)
Belzona 1321 (Ceramic S-Metal)

**SUBSTRATE**
Mild Steel Valve Tubes

**APPLICATION METHOD**
After dropping the water levels and drying the area, grit blasting to required areas was carried out in accordance with Belzona IFU. Belzona 1111 was applied in 45 degree fillets to prevent further leaks and seal off the internal areas, before applying Belzona 1321 as a two coat system to an area of 7.1 m$^2$ in accordance with VPF-02

**BELZONA FACTS**
Upon initial inspection, the original Belzona 1321 coating remained in reasonable condition after at least twenty years under full immersion. However, the Client preferred to reapply the complete two coat system for longer term protection whilst the valves were being repaired. Client also chose to employ Belzona Technosol as the specialist contractor.

**PICTURES**
1. Intake Pipe Interior Turbine Hall
2. Two Underwater Intake Pipe Chamber Accesses
3. Standard of Substrate Preparation
4. Belzona 1321 Two Coat System Finished


1.


2.


3.


4.

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

**www.belzona.com**

**BELZONA**®
Repair • Protect • Improve