

NUCLEAR PLANT BENEFITS FROM BELZONA'S LONG-LASTING PUMP COATINGS

CUSTOMER

Flamanville, France

APPLICATION DATE

Original Application - 1998

APPLICATION SITUATION

Cooling water, sourced from the sea, was causing erosion corrosion damage to the pump casings.

PROBLEM

The sand and other solid particles suspended in the solution were causing erosion and wear damage on the pump lining and the maintenance team needed a solution to ensure continued operation of the equipment. In addition, the expectation of the solution was an in-service lifespan of at least 8 years, ruling out a significant number of alternative repair methods.

PRODUCTS

Belzona 1321 (Ceramic S-Metal)
Belzona 5821

SUBSTRATE

Steel

APPLICATION METHOD

Any coating also needed to be suitable for full immersion, as the pump casing is frequently exposed to standing seawater, which can be very corrosive over time. As a result, a Belzona 1321 (Ceramic S-Metal) pump lining was chosen and the application was carried out in accordance with the Belzona Know-How System Leaflet PDP-5.

BELZONA FACTS

This power station had been coating cooling water pumps with Belzona for over 25 years, with each application demonstrating excellent erosion-corrosion resistance over that period. In this instance, the application was no different. Originally instated in 1998, the pump and coating were inspected 20 years later and found to still be in excellent condition. As a future-proofing measure, the Belzona Distributor frost blasted the coating and applied an additional layer of Belzona 5821 before returning to service. This high-performance system is ideally suited for equipment operating under immersion and erosive conditions and will extend the pump's life expectancy well beyond its original prescription.

PICTURES

1. Pump removed from service for inspection
2. Inspection reveals the coating is still in excellent condition after 20 years
3. Coating frost blasted before application of Belzona 5821
4. Pump reinstalled with additional barrier protection



1.



2.



3.



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