BELZONA MAINTAINS POWER PLANT MAIN COOLING WATER SYSTEM

ID: 4385

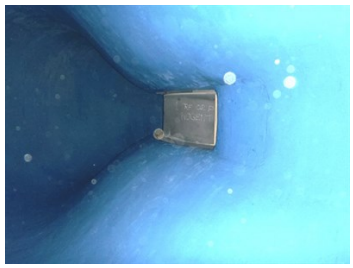
Industry: *Power*
Application: *CEP-Centrifugal Pumps*
Substrate: *Concrete*
Products: ** Belzona® 5811 (Immersion Grade) ,*
** Belzona® 4111 (Magma-Quartz) ,*
** Belzona® 1341 (Supermetalglide) ,*

Customer Location: *Nuclear Power plant, France*
Application Date: *July 2012*

Problem

The continuous flow of water through the system had caused the concrete construction to wear both upstream and downstream of the pump, as well as inside the pump volute. This erosive wear had led to micro cracking of the concrete. In addition the rough concrete surface had led to a loss of efficiency as the worn concrete walls created a more turbulent flow.



Photograph Descriptions

* Volute prior to application ,
* Application of Belzona® 4111 completed ,
* Application of Belzona® 1341 ,
* View of the volute following repair ,

Application Situation

Large water pumps with concrete volutes circulating the cooling water for the Power Station

Application Method

The application was carried out in accordance with Belzona Know-How System Leaflet CEP-10. The upper 15 linear metres were protected using Belzona® 5811. The severely eroded section where pipe turned 90° was restored using Belzona® 4111 across an

area of approximately 20m². The area was then over-coated with Belzona® 1341 to create smooth surface with optimum efficiency. Another 20m² section, right underneath the pump, was also repaired and protected in the same way. Finally, the pump outlet was also restored over an area of 130m² using the same system.

Belzona Facts

This restoration procedure was repeated for all of the cooling system lines at this power station. The application was completed by a team of 17 individuals with a time frame of two and a half weeks per system. The entire application required several tonnes of Belzona materials.