

# BELZONA PROTECTION FOR NUCLEAR POWER STATION CW VALVES

ID: 4819

**Industry:** Power  
**Application:** VPF-Valves, Pipes and Fittings  
**Substrate:** Steel  
**Products:** \* Belzona 1311 (Ceramic R-Metal) ,  
\* Belzona 1321 (Ceramic S-Metal) ,  
\* Belzona 2141 (ACR-Fluid Elastomer) ,

**Customer Location:** Nuclear Power Station, UK  
**Application Date:** December 2013

## Problem

*The non-pressure side of the valve had severely eroded due to corrosion and cavitation. The valve body and particularly the disc were affected.*



## Photograph Descriptions

- \* MCW Butterfly Valve prior to dismantling ,
- \* Valve body suffering erosion-corrosion ,
- \* Non-pressure side prior to rebuild and coating ,
- \* Non-pressure side rebuild and coated using Belzona 2141 ,

## Application Situation

Butterfly valves controlling main cooling water inlets.

## Application Method

Application was carried out in accordance with Belzona Know-How System Leaflets VPF-1 & VPF-2. A hot chemical wash was used to remove salt contamination before completing the surface preparation and coating. The valve disc was coated with 3 coats of Belzona 2141 to provide maximum cavitation resistance. The valve body was protected from erosion-corrosion using Belzona 1321. In both cases the original profiles were restored by rebuilding with Belzona 1311.

## Belzona Facts

The Belzona coatings have a proven track record in this environment. Application of the system at the Belzona Authorised Coating

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

ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
Management System.

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Centre ensured the project was completed efficiently and to the highest quality standards providing long term performance in service for the valve.

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