

# IMPELLER AT NUCLEAR PLANT REPAIRED AND PROTECTED WITH BELZONA

ID: 1409

**Industry:** Power  
**Application:** CEP-Centrifugal Pumps  
**Substrate:** Aluminum Bronze  
**Products:** \* Belzona® 1341 (Supermetalglide) ,  
\* Belzona® 1121 (Super XL-Metal) ,  
\* Belzona® 2141 (ACR Elastomer) ,

**Customer Location:** Nuclear Power Plant, North Carolina  
**Application Date:** August, 2009

## Problem

A combination of de-Aluminification over the surface of the impeller and cavitation at root of the vanes was causing a significant reduction in the efficiency of this pump.



## Photograph Descriptions

- \* Impeller before application of any product ,
- \* Application of the 1st layer of Belzona® 1341 ,
- \* Application of the smoothing layer of Belzona® 1121 ,
- \* Belzona® 2141 applied to complete the job ,

## Application Situation

Cooling tower Recirculation pump impeller.

## Application Method

The application was carried out in accordance with Belzona Know-How System Leaflets CEP-1, -3, -5 & -10. Belzona® 1121 used to smooth the surface prior to application of Belzona® 1341 system. Belzona® 2141 was then applied 8" on either side of the vanes to protect from cavitation.

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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Repair • Protect • Improve

## Belzona Facts

The cost of labor and product was much lower than the cost to replace the impeller. From current draw, the application has also increased the efficiency of the pump, but no formal efficiency increase have been calculated.

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