

BELZONA REPAIRS AND PROTECTS PUMP VOLUTE IN NUCLEAR PLANT

ID: 7582



PROBLEM

After several years in service, the concrete started to show signs of erosion, showing regular wear and cracking. Repairs were needed, otherwise this wear would have accelerated and risked causing damage to heat exchangers.

APPLICATION SITUATION

This large concrete volute (120 m²) is a part of a big cooling pump from the secondary circuit in a nuclear power plant. The pump is moving 22m³/seconds of cooling water.

APPLICATION METHOD

The application was carried out in accordance with Belzona Know-How System Leaflet CEP-03. Belzona 4111 and Belzona 1321 were used to repair and protect the walls.

BELZONA FACTS

There was no real alternative other than rebuilding with concrete, leaving it prone to the same damage. The repair of the two volutes was done in full respect of the scheduled shutdown of the plant, so without any consequences for the production activity. The pump volute is inspected annually, this was done most recently in 2017 and still found to be in an excellent condition.

INDUSTRY

Power

LOCATION

Nuclear Power Station, France

APPLICATION DATE

2011

PRODUCTS

Belzona 4111 (Magma Quartz)

Belzona 1321 (Ceramic S-Metal)

SUBSTRATE

Concrete

PHOTOS

1. Surface preparation.
2. Application of Belzona 4111 in progress to rebuild the concrete wall.
3. Final coat of Belzona 1321.
4. Finished application.

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