

Project Profile - Utilities

PROJECT

Dungeness B Power Station,
South Kent

SUMMARY

Refurbishment of Surface Water
Drain Chamber

PRODUCTS

Cemprotec E942

CLIENT

EDF Energy

CONTRACTOR

CSC Services UK Ltd

BACKGROUND ►

Dungeness B is a nuclear power station on the south coast of England. It was the first Advanced Gas-Cooled Reactor (AGR) to begin construction in the UK on a commercial scale. Work on building Dungeness B began in 1965 and it began generating electricity in 1983. Operated by EDF Energy, it was initially due to be decommissioned in 2018 but following £150 million extra investment, the station was granted a ten year life extension in 2015 and is now expected to generate electricity until 2028. Approximately 550 people are employed by EDF Energy at Dungeness B Power Station, plus over 200 contract partners.

A refurbishment solution was sought for a surface water drain chamber at the power station. The chamber forms part of the surface water drainage system and is also the authorised minor discharge route for waste condensate water being discharged from the station. Although the chamber was intact, there were voids in the mortar and cracking around pipe penetrations. The defects needed to be repaired to ensure environmental compliance was maintained. A protective lining was required that would tolerate the heat from the water being discharged.

THE SOLUTION ►

CSC Services UK Ltd, a specialist repair and coatings contractor to the power and water industries, was appointed to carry out the application work. CSC Services worked with EDF Investment Delivery in recommending and agreeing suitable products for the chamber refurbishment and a cementitious coating solution from Flexcrete was chosen.

Prior to work commencing, the drain was blocked and CSC Services installed an over-pumping system to isolate the chamber. The chamber was then lined with **Cemprotec E942** - a hard, durable, waterborne cementitious Flexcrete coating with excellent resistance to water, chloride ions, oxygen and aggressive chemicals.

A major advantage of **Cemprotec E942** is that it can be applied to damp substrates with far lower levels of surface preparation than conventional coating systems. The rapid curing nature of **Cemprotec E942** was another distinct advantage for this refurbishment project, as it allowed a speedy return to service of the surface water drainage system. The work required confined space access and there are no absolutely no concerns when **Cemprotec E942** is applied in confined areas, as it has a water-based, environmentally friendly composition and poses minimal risk during application, as no hazardous solvents or heavy odours are released. The coating is also CE-Marked in compliance with the demands of BS EN 1504. The refurbishment work was carried out to a very high standard and within programme.



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