

BELZONA KEEPS WIND TURBINES SPINNING

ID: 5642



PROBLEM

Many of the flanges were not gas tight. Changes in tide led to dangerous gases seeping from the seabed and into the chamber. A temporary sealant had been applied but could not effectively seal the leaks and a permanent solution was required.

APPLICATION SITUATION

27 offshore wind turbines. Each turbine has between one and three hang-off flanges.

APPLICATION METHOD

Belzona, Belzona's UK application division, was signed on to carry out the repairs with the application in accordance with Belzona Know-How System Leaflet VPF-11. After removing the temporary repairs and preparing the surfaces, Belzona 1161 was used to pack the joint and seal the nuts and bolts using caps filled with product. Two coats of Belzona 5831 were applied onto the flange tops and bottoms to ensure a lasting protection and to eliminate any risk of leaks.

BELZONA FACTS

When choosing a repair material, the site manager had to bear in mind the restricted access affecting surface preparation as well as high humidity, eliminating the potential use of polyurethanes. After careful consideration, they settled on the use of a Belzona surface-tolerant leak sealing system. After more than a year in service, the repair is performing well with no reported leaks or damage to the flanges. The use of a surface-tolerant composite and coating ensured that the repair could be carried out quickly regardless of surface moisture or contamination as these materials bond exceptionally well to oily or greasy surfaces and even underwater.

INDUSTRY

Power

LOCATION

Wind Farm, Teesside, UK

APPLICATION DATE

September, 2014

PRODUCTS

Belzona 1161 (Super UW-Metal)
Belzona 5831 (ST-Barrier)

SUBSTRATE

Steel

PHOTOS

1. View of the wind farm
2. Leaking flange
3. Second leaking flange
4. Belzona solution applied

For more examples of Belzona Know-How in Action, please visit khia.belzona.com

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