

BELZONA ELASTOMERS SEAL SF₆ GAS LEAK

CUSTOMER

Electricity Substation, UK

APPLICATION DATE

October 2012

APPLICATION SITUATION

Six capacitor current transformers leaking SF₆ gas to Low Voltage side between bus bar and flange. The operating pressure was 45psi.

PROBLEM

Each joint/flange was suffering from leaks requiring sealing as opposed to fully stripping back each joint and replacing with new gaskets which degrade quickly. A solution was required to minimise the uncontrolled release of SF₆ gas into atmosphere. The solution must be flexible, and provide in excess of 3kV insulation properties under 0.5bar pressure.

PRODUCTS

Belzona® 2111 (D&A Hi-Build Elastomer)

Belzona® 2311 (SR Elastomer)

SUBSTRATE

Steel and Rubber

APPLICATION METHOD

The application was carried out in accordance with modified versions of Belzona Know-How System Leaflets VPF-5 & VPF-11. After preparing the substrate and conditioning with Belzona® 2911, a fillet was created using Belzona® 2311 to the circumference of the bus bar, flange and rubber gasket joint. After allowing to cure, a gas test was undertaken to establish that the initial leak sealing system was successful. A coat of Belzona® 2111 was then applied to all of the areas of substrate incorporating Belzona® 9341 (Reinforcing Tape). A second coat was then applied to an approximate thickness of 5mm encapsulating the bus bar, all flange surfaces and the branch joint behind the flange.

BELZONA FACTS

Upon completion of each of the six applications, gas testing proved zero emission and in turn, the competency of the repairs with a six month review scheduled.

PICTURES

1. Visual view of equipment - horizontal bus bar
2. Substrate preparation completed
3. Conditioned and first Elastomer coat/joint sealing
4. Completed application with full encapsulation



1.



2.



3.



4.

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



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