CASE STUDY

CCS Network (ME) Ltd

Ratcliffe — generator transformer 3

SITE	DATE OF APPLICATI	POLLUTION TYPE
Ratcliffe on Soar	30 June 2020	Coal dust

EQUIPMENT
3 wall bushings, 3 post insulators, 1 voltage transformer, 3 underslung insulators and 3 transformer bushings, 400 kV

The challenge

Coal dust at Ratcliffe on Soar loads the 400 kV porcelain on generator transformer 3. The hydrocarbon grease, last applied an estimated five or more years earlier, was saturated. Once that grease is saturated it no longer protects against flashover, and it can support interfacial tracking.

The solution

On 30 June 2020 the grease was removed and the porcelain cleaned back to the glaze. RTV silicone HVIC was sprayed in several coats to 500 ± 140 microns. Temperature, humidity and batch numbers were recorded. Hydrophobicity was checked, and a small patch was cut on each phase to check adhesion and thickness.

The result

Hydrophobicity, adhesion and thickness were checked on each phase. The station gained a hydrophobic film at 500 ± 140 microns, in place of saturated grease. That takes washing and regreasing off the plan for as long as the coating remains in service.



Before



After



Finished coating

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