



SF6 Gas Release Repairs
Case Study

OXIFREE[®]
METAL PROTECTION

SF6 gas release solution



Location	Peterhead
Local Environment	Power Station
Date	July 2014
Condition	Dry
Total Coatings	16
Substrate Type	Circuit Breakers
Duration	3 Days

Summary

SSE contacted Oxifree as they had an SF6 leak on circuit breakers at a the Peterhead Power Station.

SF6 is one of the most potent greenhouse gases.

Objective

Oxifree were commissioned by our client to provide a solution to SF6 gas release on one stack of circuit breaker 1180.

The client was looking for a short to medium term repair (10 years) until the repair work could be scheduled on the corroded pillar support.

Process

The first step was to fully understand the nature of the leaks. After years of vulnerability to the environment and pollutants, the interface between the ceramic and aluminium support became porous and had allowed exertion of the contained SF6 gas.

Before



After application of repair bandage



Application of compression tape



Complete



Case Study



Solution

The agreed solution was for Oxifree to firstly apply Oxifree repair putty to the leaking area, apply the repair wrap and then to apply two layers of Oxifree TM198 to give an overall thickness of approximately approx. 4mm.

The amount of applications in the job was changed by the client from three stacks to eight stacks as the leak of SF6 gas could not be determined. Oxifree technicians were instructed to apply the extra five stacks on the 1180 circuit breaker.

The project was completed by an Oxifree team consisting of a supervisor and an application technician. The Polymelt 50 applicator machine was used.



Conclusion

The project was completed in good time and the SF6 gas leak was fully arrested.

Oxifree have not had to return to this site since the leak has stopped and the project was deemed a success.

