

Case Study:

SF6 Gas Release

<i>Location</i>	Various
<i>Local Environment</i>	Power Sub-stations
<i>Date</i>	2013/2014
<i>Condition</i>	Various
<i>Total Coatings</i>	34 Coatings
<i>Substrate Type</i>	Circuit Breaker Stacks
<i>Duration</i>	Over 7 Day Period

1. Objective

Oxifree were commissioned by our client) to provide a solution to SF6 gas release from GIS and SPL type circuit breakers at various locations in Scotland.

SF6 is one of the most potent greenhouse gases.

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.

2. Process

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



Oxifree UK Limited
31 – 33 St. Clements Street
Aberdeen
Scotland
AB11 5FU

e: info@oxifree.co.uk
t: 01224 047970

3. Solution

The agreed solution was for Oxifree to firstly apply Oxifree pipe wrap and then to apply two layers of Oxifree TM198 to give an overall thickness of approximately 6mm.

The malleability of applied Oxifree also provides a visual aid should any further leaks occur, by forming a highly visible bubble on the coating. Oxifree will contain low pressure release of the gas, but the use is purely corrosion and degradation protection.

Due to the nature of the application area and the size of the area where Oxifree was applied to, the Polymelt 12 unit was utilised, which only required a 240vac 16amp power supply.

The project was completed by an Oxifree team consisting of a supervisor and an application technician.

4. Photographs

