



SUSPENSION OF OPERATIONAL PRACTICE
Clydesmill 275kV Disconnecter Units and Busbar Support Insulators
SOP 345

OPSAF-16-345
Issue No.1
October 2007

1. SCOPE

This document details the Suspension of Operational Practice (SOP) No 345 applied to 275kV Line and Busbar Disconnecter Units and associated busbar support insulators in Clydesmill 275kV Substation. This type of insulator exists throughout the SPEN network but Clydesmill S/S in particular has been identified with serious degradation of the porcelain insulators.

2. ISSUE RECORD

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Issue Date	Issue No	Author	Amendment Details
June 2007	1	Colin Cameron	Initial Issue

3. ISSUE AUTHORITY

Author	Owner	Issue Authority
Colin Cameron Senior Project Engineer	Alastair Ferguson Plant Engineering Manager	Jim Sutherland Chief Engineer
	



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4. SOP DETAILS

EQUIPMENT TYPE:	275kV Busbar and line disconnecter units. Main and Reserve busbar support Insulators.
ORIGINATING DNO	ScottishPower EnergyNetworks
DATE:	9 th October 2007
NUMBER INSTALLED IN ENERGY NETWORKS NORTH:	Significant numbers of these insulators are present on the network with circa 20 disconnecter units affected at Clydesmill S/S.
NUMBER INSTALLED IN ENERGY NETWORKS SOUTH:	0
REASON:	This restriction has been imposed following the disruptive failure of a porcelain support unit on Busbar Disconnecter W36 in Clydesmill 275kV Substation. This follows similar incidents in January 2006 and previously in 2002. A survey has identified a large number of porcelain insulator support units having multiple cracks that could lead to failure during wet weather.
STATUS IN INITIATING DNO:	See SPEN application.
SPEN APPLICATION:	Controlled Operations Local 'Live' operation of disconnectors in Clydesmill 275kV Substation shall not be permitted. Remote control from a safe distance may be undertaken provided consideration is given to the proximity to insulators on adjacent circuits. Before and after each switching operation each disconnecter shall be inspected for damage that may affect the integrity of the circuit. Access A 15 metre exclusion zone around all identified cracked insulators will apply during wet weather and for a period thereafter until the insulators are considered to have dried out. Work within any 15 metre exclusion zone during wet weather can only take following the erection of protective barriers or other mitigating measures. A risk assessment shall be carried out prior to entry and for all works being carried out in Clydesmill substation 275kV compound.



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**UPDATE:
REMEDIAL ACTION:**

Clydesmill Substation is programmed for major refurbishment work commencing in April 2008 and all suspect porcelain units will be replaced as part of this project.