



## 1 SCOPE

This document details the application of SOP 170 issued by the Electricity Association.

## 2 ISSUE RECORD

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Issue Date	Issue No	Author	Amendment Details
October 2000	1	Esther Stewart	Initial Issue in New Format: 2 Page Document

## 3 ISSUE AUTHORITY

Author	Owner	Issue Authority
Esther Stewart	Roger Bracey	Roger Bracey Group Head, Standards .....



#### **4 SOP DETAILS**

<b>TYPE:</b>	Long & Crawford Type J3 and J4 oil switches and type GF3F oil fuse switches in outdoor locations. RMUs are not affected by this SOP.
<b>ORIGINATING REC:</b>	ScottishPower
<b>DATE:</b>	23/09/96
<b>NO. INSTALLED IN MANWEB:</b>	0
<b>NO. INSTALLED IN SCOTLAND:</b>	
<b>STATUS:</b>	Ban on live operation
<b>REASON:</b>	Oil contamination of Long & Crawford J3 & J4 oil switches
<b>UPDATE:</b>	
<b>REMEDIAL ACTION:</b>	

Following the failure reported in DIN 96/48 the two remaining J4 oil switches and GF3F oil fuse switch were inspected. The two J4 units had moisture contents of 165ppm and an unusual amount of oil emulsification. The GF3F unit had a moisture content of 65ppm but no evidence of emulsification. A second switchboard consisting of three J4 units and a type GF3F was selected at random and inspected. All 4 units failed a dielectric test. The J4 units had moisture contents above the minimum 50ppm and evidence of oil emulsification in one switch. The switchboard was commissioned in 1980, last maintained in 1991 and had waterproof hoods fitted in 1993.

A sample survey is being undertaken to confirm the general state of J3 & J4 oil switches in outdoor locations. The restriction on the total population will be reviewed in the light of the survey results. The restriction will be removed from any individual unit which is confirmed free from contamination and in a serviceable condition.