

1. SCOPE

This document details the application of SOP 310 (Applicable to Switchgear & Cowans 6kV, 6.6kV and 11kV ring main units type RA50, RAO50, RA71 and RAO71 issued by the Energy Networks Association.

2. ISSUE RECORD

This is a Reference document. The current version is held on the EN Document Library.

It is your responsibility to ensure you work to the current version.

Issue Date	Issue No.	Author	Amendment Details
January 2004	1	D.W.Naylor	Initial issue 2 page document
September 2005	2	G N Wood	Updated to restrict use of oil switch as point of isolation and primary earth. 3 page document.
August 2024	3	Benjamin Hughes	Re-format of document.

3. ISSUE AUTHORITY

Author	Owner	Issue Authority
Benjamin Hughes Lead Engineer	Jon Ruiz De Aguirre Substations Manager	Fraser Ainslie Head of Engineering Design and Standards

4. REVIEW

This is a Reference document which has a 5 year retention period after which a reminder will be issued to review and extend retention or archive.

5. DISTRIBUTION

This document is not part of a Manual maintained by Document Control and does not have a maintained distribution list. It is published on the SP Energy Networks website.

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7. SOP DETAILS

EQUIPMENT TYPE	Switchgear & Cowans 6kV, 6.6kV and 11kV ring main units type RA50, RAO50, RA71 and RAO71.
ORIGINATING COMPANY	EDF Energy
DATE	19 January 2004
NUMBER INSTALLED IN ENERGY NETWORKS NORTH	0
NUMBER INSTALLED IN ENERGY NETWORKS SOUTH	1
REASON	Broken RA71 ring switch drive linkage caused yellow phase contact to fall to the EARTH position as the oil switch was being operated from ON to OFF. The mechanisms and drive linkages are considered similar across the above range of unit types
STATUS IN INITIATING COMPANY	Ban on live operation of the oil switches or earth switches on S&C RA50 ring main units with the busbars or the associated feeder live. On completion of any switching operation on these RMU switches, the re-energisation shall be carried out from a remote location after ensuring that no one is in the vicinity of the RA50 being re-energised. This SOP does not affect operation of the associated RMU OCB.
SPEN APPLICATION	<p>As above. Also:</p> <p>Restriction on the use of a single open RA50 oil switch as a point of isolation. A second network open point, in addition to an open RA50 oil switch is required to effect a point of isolation. The second open point may also be an RA50 oil switch.</p> <p>Restriction on the use of an RA50 oil switch as a primary earth. From the date of the update to this SOP a log of RA50 oil switch operations shall be kept. A maximum of 50 switch</p>

operations* is allowed. More operations than this will result in a ban on the use of the RA50 oil switch as a primary earth.

*Oil switch operations of any indexed status change (i.e. onoff=1, off-earth=1, earth-off=1, off-on=1)

ADDITIONAL INFORMATION**UPDATE**

SOP updated 30th September 2005 to restrict the use of an RA50 oil switch as a point of isolation and primary earth, as detailed above.

REMEDIAL ACTION

Following investigations by PowerSystems and EDF Energy, this SOP will remain in place until the removal of S&C RA50 ring main units from the network.

8. SOP HEADER

Field Name	Field Value	Field Size
Name (SOPXXX) *	SOP310	6
The reason for the Operational Restriction *	Broken drive linkage	30
Nature of the Operational Restriction *	No live op/No use as POI/No use as PE/Max 50 ops	50
Comments *	No live op of oil or earth sw. re-energise remotely. No use of single open RA50 oil switch as a POI. Restriction- use as PE. A max 50 switch op is allowed, more than this, ban use as PE	200
Restricted Access to Substation Flag *	N	1
SOP Impact Code * (highlight or underline the appropriate code)	0 Temporary/Impact under assessment 1 Very minor operational/network impact 2 Moderate operational/network impact 3 Significant impact on system perf./measurable business costs 4 Inoperable without intervention 5 Inoperable – no cost effective solution/must be replaced	N/A
SOP component type * (highlight or underline the appropriate code)	01 Bushing only 02 Circuit Breaker 03 Fixed Portion only 04 Moving Portion only 05 Switch <u>06 RMU</u> 07 Transformer only 08 Tap Changer only 09 Transformer & Bushing 10 Transformer & Tap Changer	N/A
Search Criteria *	Manufacturer: Switchgear & Cowans Model: RA50, RAO50, RA71, RAO71	N/A

* This denotes a Mandatory Field