

1. SCOPE

This document details the application of SOP 445 (Applicable to REYROLLE SPL2 Circuit Breakers manufactured before the year 2000) issued by the Energy Networks Association.

2. ISSUE RECORD

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

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Issue Date	Issue No.	Author	Amendment Details
December 2025	1	Terry Cochrane	Initial Issue

3. ISSUE AUTHORITY

Author	Owner	Issue Authority
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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	Reyrolle SPL2 Circuit Breaker
ORIGINATING COMPANY	SP Energy Networks
DATE	03/12/2025
NUMBER INSTALLED IN ENERGY NETWORKS NORTH	2
NUMBER INSTALLED IN ENERGY NETWORKS SOUTH	
REASON	<p>SPEN are implementing this SOP following the issue of DIN 2025/0025/00 & NEDeR 2025/1058/00 by National Grid. National Grid have suffered a number of failures on Reyrolle SPL2 circuit breaker porcelain support insulators when temperatures are below 0°C or above 35°C. In all but one instance this has been on circuit breakers fitted with Daulton insulators manufactured between 1992-94. Daulton insulators were not supplied on Reyrolle SPL2 circuit breakers after 1999. SPEN have two Reyrolle SPL2 circuit breakers supplied before 2000 and are taking steps to apply an SOP to these circuit breakers to mitigate the risk associated with a similar failure as experienced in National Grid. The control measures in this SOP were derived following engagement with National Grid and the legacy OEM Siemens.</p>
STATUS IN INITIATING COMPANY	<p>This SOP will only be applied to circuit breakers manufactured before the year 2000. Mitigation by implementation of a 35m RMZ to be applied during the conditions set out by the investigation (sub-zero and 35+C temperatures) and up to 2 hours after temperatures raising above freezing. Further measures, to be outside RMZ zone during switching operations and Lightning Risk 1 periods. It is currently understood remedial options do not eliminate all common causal factors</p>
SPEN APPLICATION	<p>As above, with the addition of temperature monitoring equipment onsite to confirm conditions are outside of RMZ implementation criteria before entering.</p>
ADDITIONAL INFORMATION	None
UPDATE	N/A
REMEDIAL ACTION	<p>Awaiting outcome of root cause analysis from National Grid & Siemens.</p>

8. SOP HEADER

Field Name	Field Value	Field Size
Name (SOPXXX) *	SOP445	6
The reason for the Operational Restriction *	Support Insulator Failure	30
Nature of the Operational Restriction *	Risk Management Hazard Zones for affected assets	50
Comments *	35m RMZ to be applied during sub-zero and 35+C temperatures & up to 2 hours after temperatures raising above freezing. Also, to be outside RMZ during switching operations and Lightning Risk 1 periods.	200
Restricted Access to Substation Flag *	Y	1
SOP Impact Code * (highlight or underline the appropriate code)	0 Temporary/Impact under assessment 1 Very minor operational/network impact <u>2 Moderate operational/network impact</u> 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 <u>02 Circuit Breaker</u> 03 Fixed Portion only 04 Moving Portion only 05 Switch 06 RMU 07 Transformer only 08 Tap Changer only 09 Transformer & Bushing 10 Transformer & Tap Changer	N/A
Search Criteria *	REYROLLE SPL2 BEFORE 2000	N/A

*This denotes a Mandatory Field

9. LIST OF AFFECTED ASSETS ACCORDING TO INVENTORY

Description of Functional Location	COMMISSIONING DATE	Manufacturer Serial Number	Equipment Number	Text Model
KILMARNOCK SOUTH 400Kv- 400	15/06/1992	3ZSPL73	700265328	400KV SPL2
STRATHAVEN 400Kv-400	10/09/1993	4B SPL-46	700270218	SPL2 400KV GCB TRANS