

1. SCOPE

This document details the application of SOP 430 (Applicable to Parson Peebles 150 MVar, 400 kV shunt reactor at Torness 400 kV substation) 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
14 July 2022	1	Kevin Butter	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	Parson Peebles 150 MVAr 400 kV shunt reactor at Torness 400 kV substation
ORIGINATING COMPANY	SP Energy Networks
DATE	14 th July 2022
NUMBER INSTALLED IN ENERGY NETWORKS NORTH	2 (Including failed R1 Shunt Reactor)
NUMBER INSTALLED IN ENERGY NETWORKS SOUTH	0
REASON	<p>On 10th July 2021, the R1 Shunt Reactor at Torness 400 kV substation suffered a catastrophic failure resulting in a fire. The fire was quickly extinguished by the automatic Mulsifyre water deluge system. A significant volume of insulating oil was released into the surrounding area.</p> <p>Investigation into the cause of the failure is ongoing.</p>
STATUS IN INITIATING COMPANY	<p>A Risk Management Zone (RMZ) has been established which prohibits access to the building that houses the R2 Shunt Reactor at Torness 400 kV substation whilst the reactor is live. Personnel shall contact the OCC before entering the R2 Shunt Reactor building.</p> <p>Notices shall be posted at all access doors to the R2 Shunt Reactor building to warn staff of the restricted access to this area.</p> <p>The R2 Shunt Reactor is the only other shunt reactor of the same type in SP Energy Networks as the R1 unit that failed.</p>
SPEN APPLICATION	As detailed above.
ADDITIONAL INFORMATION	None.
UPDATE	
REMEDIAL ACTION	<p>The R1 Shunt Reactor is beyond repair. Both shunt reactors at Torness 400 kV substation are programmed to be replaced.</p> <p>The R2 Shunt Reactor will be managed until it is replaced.</p>

8. SOP HEADER

Field Name	Field Value	Field Size
Name (SOPXXX) *	SOP430	6
The reason for the Operational Restriction *	Failure of shunt reactor	30
Nature of the Operational Restriction *	No access to R2 building	50
Comments *	Access to the R2 shunt reactor building at Torness 400 kV substation is prohibited whilst the reactor is live. Personnel shall contact OCC before entering the R2 Shunt Reactor building.	200
Restricted Access to Substation Flag *	Y	1
SOP Impact Code * <i>(highlight or underline the appropriate code)</i>	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 * <i>(highlight or underline the appropriate code)</i>	01 Bushing only 02 Circuit Breaker 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 *	TORN400SHRR2	N/A

* This denotes a Mandatory Field