PR-NET-OSM-021

TRANSFER OF SYSTEM CONTROL RESPONSIBILITIES

OPERATIONAL SAFETY MANUAL - SECTION 2.11

Scottish & Southern Electricity Networks

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1 Introduction

1.1 This document defines the **Approved** procedure for the operation and control of planned and unplanned work on the **System** energised at nominal voltages up to and including 132kV.

1.2 The principle of operations on the **System** are that one person is in control of any part of the **System** at any time.

1.3 Notwithstanding the safety precautions defined in the **OSR**, compliance with the following procedures **Shall** enable staff to work safely and reduce the risk of injury to themselves and their colleagues.

2 Scope

The scope of this document **Shall** be limited to Persons who are required to operate and control work on the **System**. By consistently applying the procedures herein, a number of key functions can be achieved:

- Maintain a consistent approach for the control and operation of the **System**
- Maintain the availability of Control Room staff and field staff to respond and engage to unplanned events
- Provide contingency arrangements for loss of any parts of the telecoms / control infrastructure.

3 References

The documents detailed in Table 3.1 - Scottish and Southern Electricity Networks Documents, should be used in conjunction with this document.

Table 3.1 - Scottish and Southern Electricity Networks Documents

Reference	Title
PR-NET-OSM-006	SSEN Distribution Operational Safety Rules – Operational Safety Manual – Section 1.1
PR-NET-OSM-028	Switching Terminology and Approved Abbreviations - Operational Safety Manual - Section 4.4
PR-NET-OSM-008	System Control Procedures - Operational Safety Manual - Section 2.1
PR-NET-OSM-017	Switching Schedules and Switching Log Books - Operational Safety Manual - Section 2.7
WI-NET-OSM-002	Personal Protective Equipment and Workwear for Live Environments
N/A	SSEN SHE Handbook (Held in Safety, Health and Wellbeing SharePoint Site)

4 Definitions

4.1 The words printed in bold text within this document are either headings or definitions. Definitions used within this **Approved** procedure are defined within the list presented immediately below, or within Section 2 of the **OSR**.

4.2 **Control Engineer**

As defined in the **OSR**, may also be referred to as a Distribution Control Engineer (DCE).

4.3 **Field Control Engineer**

4.4 The person who by agreement with the **Control Engineer** takes responsibility for control of operations on a **System** under **Network Operations Procedure 2, 3 & 4**

4.5 **Local Control**

The generic term used on authorisation certificates to describe the control of **HV System** by a Person other than the **Control Engineer**, i.e., by a **Field Control Engineer**.

4.6 **Network Operations Procedures (NOP 1 – 4)**

- These relate to planned and unplanned network operations and may be used with any System Control Procedure.
- **Network Operations Procedure 1 (NOP 1)** – is the procedure for direct control of **High Voltage Switching** by the **Control Engineer** with the issue of individual **Switching** instructions and/or a group of **Switching** instructions, (block release)
- **Network Operations Procedure 2 (NOP 2)** – allows the **Field Control Engineer** to take control of **Switching** and **Safety Documents**, working only to an agreed **Switching** schedule
- **Network Operations Procedure 3 (NOP 3)** – allows the **Field Control Engineer** to take control of **Switching** and **Safety Documents** on an agreed section of **System** which has only a single source of **High Voltage** supply
- **Network Operations Procedure 4 (NOP 4)** – extension of **NOP3** to include the whole or any part of a multi-source **High Voltage** network, normally up to a maximum of one feeder or circuit. Under emergency conditions staff authorised for full **NOP4** may also operate as a **Control Engineer** using procedure SCP 3

4.7 **Operator**

The **Authorised Person** permitted to carry out **Switching** on the **System**.

4.8 **Operational Safety Rules (OSR)**

The **SSEN-D** Distribution set of rules, as read with related documents and procedures, that provide generic safe systems of work on the **System** therefore ensuring the health and safety of all who are liable to be affected by any **Danger** that might arise from the **System**.

5 General Responsibilities

5.1 Persons who are required to operate and undertake work on the **System Shall** have a thorough understanding of the work and ensure on site risks are suitably assessed and appropriate control measures put in place before, during and after all activities.

5.2 Persons must ensure that at all times during the work (or associated testing) **General Safety** arrangements are maintained and that other work areas are not adversely affected by the activities for which they are responsible.

5.3 All persons operating on the **System Shall** ensure that operations are carried out safely in accordance with the **SSEN-D Operational Safety Rules** and relevant **Approved** Procedures.

6 Authorisation

6.1 Persons who are required to undertake control and **Switching** duties on the **System Shall** hold the appropriate competence and authorisation to carry out specified duties. In addition, persons who are required to act as a **Field Control Engineer** for a **System Shall** be assessed in accordance with the appropriate **SSEN-D Network Operating Procedure**.

6.2 Authorisation for **NOP 2**, **NOP 3** and **NOP 4** status **Shall** apply to the specific voltage level to which the **Authorised Person** can issue **Safety Documents**.

NOTE: Appendix 'A' provides a guide to the level of **NOP** authorisation appropriate to a person's skills and experience.

7 Personal Protective Equipment

7.1 Persons who are required to work or carry out work or testing on or near the **System Shall** wear suitably **Approved** Personal Protective Equipment (PPE). Furthermore, where warning labels or signs identify the existence of a particular hazard, additional and appropriate PPE **Shall** be worn.

7.2 As a minimum, PPE **Shall** meet the requirements of WI-NET-OSM-002.

8 General Requirements

8.1 System Management Information

The control and **Switching** of the **System Shall** be carried out in relation to its operational state as depicted by an up-to-date **System** diagram. For the purpose of this procedure, up-to-date **Shall** signify:

- The controlled contingency plot issued by the Networks Management Centre, or a print taken from the live ENMAC system within the last 24 hours (available on site at the time of control transfer or obtained by the **Field Control Engineer** before carrying out any operations), or
- Graphic Information System (GIS) being either a Geographic or Schematic print which has been validated with agreement from the **Control Engineer**, or by visual inspection on site. Visual inspection is not acceptable as a means of validation where there is any underground cable on the part of the **System** that is to be transferred by the **Control Engineer** to a **Field Control Engineer**

8.2 Control of the System

8.2.1 The **High Voltage System** is operated on the principle that one **Control Engineer** is responsible for the control of the **System** at all times. However, to reduce the amount of communication between **Operators** and the **Control Engineer**, and to prevent unnecessary delays, parts of the **System** may be transferred to a suitably authorised **Senior Authorised Person** working or preparing to work in the field.

8.2.2 The transfer of control responsibilities **Shall** comply with the **Network Operating Procedures (NOPs)** detailed in Section 9 of this **Approved** procedure.

9 Network Operations Procedure 1 (NOP 1)

9.1 Mode of Operation

9.1.1 **NOP 1 Shall** be used where the **Control Engineer** gives authority for **High Voltage Switching** to be carried out and communicates directly with the Person who is to carry out the **Switching**.

9.1.2 **NOP 1 Shall** be used for:

- **Switching** by person's not authorised for **NOP 2, NOP 3**, or **NOP 4**

- **Switching** operations where **Personal Supervision** is desired
- **Switching** operations on any **System** that comprises connections between circuits fed from different supply points
- **Switching** on any **System** which crosses a Control Boundary

9.1.3 **NOP 1 Shall** not be used for:

- Issuing instructions to another **Operator** (except when under **Personal Supervision**)

9.2 Switching Schedules and Records

For planned work a prepared and **Approved Switching** schedule **Shall** be used where practicable. For unplanned **Switching** a written record of any **Switching** instruction **Shall** be made by the recipient.

9.3 Procedure for Use

9.3.1 For planned **Switching**, the **Control Engineer Shall** give authority for **Switching** by communicating directly with the Person carrying out the **Switching**.

9.3.2 The **Control Engineer** and the Person carrying out the **Switching Shall** verify they are both in possession of the **Approved Switching** schedule by confirming the unique schedule number assigned and that no changes have been made.

9.3.3 The **Control Engineer Shall** give authority for **Switching** by quoting the **Switching** schedule number then numbered **Switching** activity. The Person carrying out the **Switching Shall** confirm their understanding of the **Switching** instruction by reading back the instruction on the same basis as issued.

9.3.4 Unless the Person who is to carry out the **High Voltage Switching** is using a prepared and **Approved Switching** schedule, then they **Shall** write down the instruction and read it back to the **Control Engineer** before undertaking the **Switching** operation.

9.3.5 The **Control Engineer** and the person carrying out the **Switching Shall** ensure that a record is made of the time and particulars of all **Switching** operations including that carried out by the **Control Engineer** remotely. **Safety Document** particulars **Shall** also be recorded. Where a number of field **Switching** schedules exist, the **Control Engineer Shall** ensure that the times for all **Switching** and **Safety Document** particulars are recorded.

10 Network Operations Procedure 2 (NOP 2)

10.1 Mode of Operation

10.1.1 It is preferable to use **NOP 2** for any planned or unplanned work except for the work situations listed in Section 9.

10.1.2 **NOP 2 Shall** be used where the **Control Engineer** transfers the operational control of a **Switching** schedule, in part or in full, to a **Field Control Engineer** holding **NOP 2** status. This **Shall** include the issue and cancelling of **Safety Documents**.

10.1.3 **NOP 2 Shall** be used for:

- The management of an operational zone of work excluding cross Control **B**oundary **Switching**
- **Field Control** of planned **Switching** in accordance with an **Approved Switching** schedule

- **Field Control** of unplanned **Switching** in accordance with instructions authorised by a **Control Engineer**
- The **Field Control Engineer** giving appropriate authority to **Operators** working to **NOP 1**

10.1.4 **NOP 2 Shall** not be used for:

- Planned **Switching** operations on any **System** that comprises connections between circuits fed from different supply points
- Planned **Switching** on any **System** which crosses a Control Boundary
- Unplanned **Switching** without the authorisation of a **Control Engineer**

10.2 Switching Schedules and Records

10.2.1 For planned work a prepared and **Approved Switching** schedule **Shall** be used where practicable. For unplanned **Switching** a written record of any **Switching** instruction **Shall** be made by the recipient.

10.2.2 **Switching** schedules **Shall** be written as a continuous sequence covering both the outage and the restoration except where the duration of the outage exceeds 7 days, and it is not practicable to prepare the restoration schedule at the same time as the outage. No changes **Shall** be made to the items on a checked **Switching** schedule without the agreement of the **Control Engineer**.

10.2.3 Where planned **Switching** involves more than one **Operator**, it may be appropriate to carry out groups of items concurrently. In these circumstances, the following **Shall** apply:

- Groups of **Switching** items that involve **Low Voltage** parallel and back-feed, **Low Voltage** isolation and where applicable **Earthing** may be carried out in an order that suits the site circumstances
- Groups of **High Voltage Switching** items involving the application of **Circuit Main Earths** may be carried out in an order that suits the site circumstances, provided that an adequately rated circuit breaker or **Earthing** switch is used to apply the first **Circuit Main Earth** in a sequence

10.2.4 The **Field Control Engineer's Switching** Schedule **Shall** act as the principal document, recording operational particulars carried out under **NOP 2** status. Each item of the **Field Control Engineer**'s **Switching** Schedule **Shall** be annotated with the date, completion time for each **Switching** operation and the **Operator**'s initials. The issue and cancellation of **Safety Documents Shall** be recorded as separate items on the **Switching** schedule.

10.3 Procedure for Use

10.3.1 For planned **Switching** and prior to releasing a **Switching** schedule under **NOP 2** status, the **Control Engineer Shall** give authority for **Switching** by communicating directly with the person carrying out the **Switching**.

10.3.2 Prior to releasing a **Switching** schedule under **NOP 2**, the **Control Engineer Shall** use **NOP 1** procedures to control **Switching** operations on any **System** that comprises connections between circuits fed from different supply points and circuits which cross different Control Boundaries.

10.3.3 The transfer of control from the **Control Engineer** to the **Field Control Engineer Shall** be recorded on the **Switching** schedule as "Start **NOP 2**" and **Shall** include the date, completion time for the transfer of control and the designation of both the **Field Control Engineer** and the **Control Engineer**.

10.3.4 Following the transfer of control, the **Control Engineer Shall** dress their network diagram with a marker that clearly indicates **NOP 2** status. The marker **Shall** remain for the full duration of **Field Control** and **Shall** only be removed following transfer of **System** back to the **Control Engineer**. During **NOP 2** status, the **Control Engineer Shall** not carry out any **Switching** which affects the circuit on which the **Field Control Engineer** is operating, except at the direct request of the **Field Control Engineer** or in cases of emergency **Switching**.

10.4 Transfer, Suspension and Completion

10.4.1 Where it is necessary to transfer control of the **System** between **Field Control Engineers**, the **Field Control Engineer** requesting the transfer **Shall** notify the **Control Engineer** of their intent prior to the transfer taking place. The person receiving **Field Control** of the **System Shall** be briefed fully on the operational state of the **System** including any **Safety Documents** that may be issued. An entry **Shall** be made on the **Switching** schedule of the **Control Engineer** and that of **the Field Control Engineer** so as to formally record **System** transfer.

10.4.2 Where **NOP 2** ends and the **Switching** schedule is not complete, the **Field Control Engineer Shall** confirm to the **Control Engineer** which items on the **Switching** schedule have been completed. The **Control Engineer Shall** record these items as complete. The **Control Engineer Shall** update the control diagram to accurately reflect its current operational status. The **Control Engineer Shall** note any outstanding **Safety Documents**.

10.4.3 The conclusion of **NOP 2** status **Shall** be recorded on the **Switching** schedule as “end **NOP 2**”. The **Field Control Engineer Shall** not carry out any further **Switching** without the agreement of the **Control Engineer**. In cases where a planned **Switching** schedule extends over 24 hours the items to start and end **NOP 2 Shall** be included in the **Switching** schedule.

11 Network Operations Procedure 3 (NOP 3)

11.1 Mode of Operation

11.1.1 **NOP 3 Shall** be used for any planned or unplanned work except for the work situations listed in Section 9.

11.1.2 **NOP 3 Shall** be used where the **Control Engineer** transfers the operational control of a **System** with a single source of supply to a **Field Control Engineer** holding **NOP 3** status. This **Shall** include the issue and cancellation of **Safety Documents**.

11.1.3 Justification for the use of **NOP 3** status **Shall** be agreed between the **Control Engineer** and the **Field Control Engineer** in advance of the planned or unplanned work commencing. This **Shall** be recorded as a ‘Note’ on the **Switching** schedule by both parties. The following justifications are permissible:

- Unreliable communication due to geographical area
- Training
- Personal Refresher
- Storm Response
- High demand on control room resources

11.1.4 **NOP 3 Shall** be used for:

- The management of an operational zone of work

- **Field Control** of a **System** with single source of supply
- **Field Control** of planned **Switching** in accordance with an **Approved Switching** schedule
- **Field Control** of unplanned **Switching**
- The **Field Control Engineer** giving appropriate authority to **Operators** working under **NOP 1**

11.1.5 **NOP 3 Shall** not be used for:

- **Field Control** of a **System** with multiple sources of supply
- Initiating **Field Control** of a **System** without the authorisation of the **Control Engineer**

11.2 Switching Schedules and Records

11.2.1 For planned work a prepared and **Approved Switching** schedule **Shall** be used where practicable.

11.2.2 For unplanned **Switching** a written record of any **Switching** instruction **Shall** be made by the recipient.

11.2.3 The transfer of control from the **Control Engineer** to the **Field Control Engineer Shall** be recorded on the **Switching** schedule as "Start **NOP 3**" and **Shall** include the date, completion time for the transfer of control and the designation of both the **Field Control Engineer** and the **Control Engineer**.

11.2.4 Following the initial transfer of control, the **Field Control Engineer Switching** Schedule **Shall** act as the principal document, recording operational particulars carried out under **NOP 3** status. Each item of the **Switching** schedule **Shall** be annotated with the date, completion time for each **Switching** operation and the **Operator**'s initials. The issue and cancellation of a **Safety Document Shall** be recorded as a separate item on the **Switching** schedule.

11.2.5 The **Field Control Engineer Shall** ensure that an up-to-date operational diagram and where practicable associated cable records are made available on-site for those doing the work.

11.3 Procedure for use

11.3.1 For planned **Switching** and prior to releasing a **Switching** schedule under **NOP 3** status, the **Control Engineer Shall** give authority for **Switching** by communicating directly with the person carrying out the **Switching**.

11.3.2 Prior to releasing a **Switching** schedule under **NOP 3**, the **Control Engineer Shall** use **NOP 1** procedures to control **Switching** operations on the **System** and up to the connection point with a control/ownership boundary.

11.3.3 For cross boundary **Switching,** the operation of any switchgear connected to the part of a **System** not under the control of the **Control Engineer** (i.e., not under a service level agreement) **Shall** be carried out under **NOP 3** using a **Field Control Engineer**.

11.3.4 The transfer of control from the **Control Engineer** to the **Field Control Engineer Shall** be recorded on the **Switching** schedule and where applicable the Control Transfer Certificate as "Start **NOP 3**" and **Shall** include the date, completion time for the transfer of control and the designation of both the **Field Control Engineer** and the **Control Engineer**.

11.3.5 Following the transfer of control, the **Control Engineer Shall** dress their network diagram with a marker that clearly indicates **NOP 3** status. The marker **Shall** remain for the full duration of **Field Control** and **Shall** only be removed following transfer of **System** back to

the **Control Engineer**. During **NOP 3** status, the **Control Engineer Shall** not carry out any **Switching** which affects the circuit on which the **Field Control Engineer** is operating, except at the direct request of the **Field Control Engineer** or in cases of emergency **Switching**.

11.3.6 Where the **Field Control Engineer** is required to give authorisation for **Switching** to another suitably **Authorised Person,** the **Field Control Engineer Shall** communicate directly with that **Operator**. The **Operator** Shall write down the instruction and read it back to the **Field Control Engineer** on the same basis as issued.

11.4 Transfer, Suspension and Completion

11.4.1 Although not a mandatory requirement the use of a Control Transfer Certificate is encouraged to aid the transfer, suspension and completion of **NOP 3**.

11.4.2 As a minimum the Control Transfer Certificate **Shall** include the following details:

- Purpose of the outage
- The **System** or part thereof being transferred
- Control/ownership boundary points and **Switching** devices
- De-energising and re-energising points on the **System**
- Operational restrictions or **System** abnormalities
- Special conditions including details of any subsequent transfer to another **Field Control Engineer**
- The name of the **Field Control Engineer** and **Control Engineer** at time and date of transfer between parties
- Confirmation of 'operational start' on the **System** following transfer back to the **Control Engineer**
- Customer interruption and restoration times
- Any additional comments

11.4.3 Where the transfer of **NOP 3** to another **Field Control Engineer** is required, the **Control Engineer Shall** co-ordinate and record events accordingly. The active **Field Control Engineer Shall** communicate directly with the **Control Engineer** and request the **Switching** schedule item "transfer **NOP 3**". As part of this request, the active **Field Control Engineer Shall** confirm the operational state of the **System** to the **Control Engineer** who **Shall** confirm the end of **NOP 3** and retake control of the **System**. The **Control Engineer Shall** update the control **Switching** schedule accordingly. The **Control Engineer** may then transfer control of the network to another suitably authorised **Field Control Engineer** in accordance with **NOP 3** procedures.

11.4.4 Where **NOP 3** ends and the **Switching** schedule is not complete, the **Field Control Engineer Shall** confirm to the **Control Engineer** which items on the **Switching** schedule have been completed. The **Control Engineer Shall** record these items as complete. The **Control Engineer Shall** update the control diagram to accurately reflect its current operational status. The **Control Engineer Shall** note any outstanding **Safety Documents**.

11.4.5 The conclusion of **NOP 3** status **Shall** be recorded on the **Switching** schedule and where applicable the Control Transfer Certificate as "End **NOP 3**". The **Field Control Engineer Shall** not carry out any further **Switching** without the agreement of the **Control Engineer**.

12 Network Operations Procedure 4 (NOP 4)

12.1 Mode of Operation

12.1.1 **NOP 4 Shall** not be used for any planned or unplanned work situations listed in Section 9.

12.1.2 **NOP 4 Shall** be used where the **Control Engineer** transfers the operational control of a **System** with multiple sources of supply to a **Field Control Engineer** holding **NOP 4** status. This **Shall** include the issue and cancel of **Safety Documents**.

12.1.3 Justification for the use of **NOP 4** status **Shall** be agreed between the **Control Engineer** and the **Field Control Engineer** in advance of the planned or unplanned work commencing. This **Shall** be recorded as a 'Note' on the **Switching** schedule by both parties. The following justifications are permissible:

- Unreliable communication due to geographical area
- Training
- Personal Refresher
- Storm Response
- High demand on NMC resources

12.1.4 **NOP 4 Shall** be used for:

- **Field Control** of a **System** with multiple sources of supply.
- **Field Control** of planned **Switching**
- **Field Control** of unplanned **Switching**
- The **Field Control Engineer** giving appropriate authority to **Operators** working under **NOP 1**

12.1.5 **NOP 4 Shall** not be used for:

- The control of **Switching** operations on any **System** that comprises connections between circuits fed from different supply points
- Initiating **Field Control** of a **System** without the authorisation of the **Control Engineer**

12.2 Switching Schedules and Records

12.2.1 For planned work a prepared and **Approved Switching** schedule **Shall** be used where practicable.

12.2.2 For unplanned **Switching** a written record of any **Switching** instruction **Shall** be made by the recipient.

12.2.3 The transfer of control from the **Control Engineer** to the **Field Control Engineer Shall** be recorded on the **Switching** schedule as "Start **NOP 4**" and **Shall** include the date, completion time for the transfer of control and the designation of both the **Field Control Engineer** and the **Control Engineer**.

12.2.4 Following the initial transfer of control, the **Field Control Engineer Switching** Schedule **Shall** act as the principal document, recording operational particulars carried out under **NOP 4** status. Each item of the **Switching** schedule **Shall** be annotated with the date, completion time for each **Switching** operation and the **Operator**'s initials. The issue and cancellation of a **Safety Document Shall** be recorded as a separate item on the **Switching** schedule and where applicable the **Safety Document** Control Log.

12.2.5 The **Field Control Engineer Shall** ensure that an up-to-date operational diagram and where practicable associated cable records are made available on-site for those doing the work.

12.2.6 Where alterations to the **System** form part of a planned **Switching** schedule, the relevant forms and related paperwork **Shall** be sent to the Control Centre in advance, so that any **System** changes can be prepared and a dummy 'patch' can be created for future import into ENMAC. Details of the proposed **System** alteration **Shall** be confirmed between the relevant parties before **NOP 4** commences.

12.3 Procedure for Use

12.3.1 Prior to releasing a **Switching** schedule under **NOP 4**, the **Control Engineer Shall** use **NOP 1** procedures to control **Switching** operations on the **System** and up to the connection point with a control/ownership boundary.

12.3.2 For cross boundary **Switching**, the operation of any switchgear connected to the part of a **System** not under the control of the **Control Engineer**, i.e., not associated with the **SSEN-D System**, **Shall** be carried out under **NOP 4** using a **Field Control Engineer**.

12.3.3 The transfer of control from the **Control Engineer** to the **Field Control Engineer Shall** be recorded on the **Switching** schedule and where applicable the Control Transfer Certificate as "Start **NOP 4**" and **Shall** include the date, completion time for the transfer of control and the designation of both the **Field Control Engineer** and the **Control Engineer**.

12.3.4 Following the transfer of control, the **Control Engineer Shall** dress their network diagram with a marker that clearly indicates **NOP 4** status. The marker **Shall** remain for the full duration of **Field Control** and **Shall** only be removed following transfer of **System** back to the **Control Engineer**. During **NOP 4** status, the **Control Engineer Shall** not carry out any **Switching** which affects the circuit on which the **Field Control Engineer** is operating, except at the direct request of the **Field Control Engineer** or in cases of emergency **Switching**.

12.3.5 Where the **Field Control Engineer** is required to give authorisation for **Switching** to another suitably **Authorised Person**, the **Field Control Engineer Shall** communicate directly with that **Operator**. The **Operator Shall** write down the instruction and read it back to the **Field Control Engineer** on the same basis as issued.

12.3.6 Where control of a **System** with multiple sources of supply requires transfer to a **Field Control Engineer** for the purpose of fault repair or preparatory **Switching** so as to provide a single source of supply, this **Shall** be referred to as 'Restricted **NOP 4'**.

12.3.7 There are two levels of restriction which can be applied to **NOP 4** status:

- **NOP 4R** restricted to "Overhead Line Fault Repair" applies to a **System** with a single or multiple sources of supply where one or more predominantly overhead faults have already been disconnected from the remainder of the **System** such that no further fault **Switching** is required to identify them
- **NOP 4R** restricted to "Overhead Line Work" changes the above restriction to also allow planned work on a predominantly overhead section of a **System** with a single or multiple sources of supply, that following preparatory **Switching**, can only be de-energised and/or re-energised from a single source

12.3.8 Under Restricted **NOP 4**, agreement **Shall** be made with the **Control Engineer** as to the order of **Switching** to restore supply to the **System**. Following the restoration of supply, the **Field Control Engineer Shall** not carry out any further **Switching** without the agreement of the **Control Engineer**.

12.3.9 Where geography or the location of **Apparatus** causes unnecessary delay to **Switching** operations, the use of telecontrol **Switching** is permitted where practicable. The **Field**

Control Engineer Shall communicate directly with the **Control Engineer**, requesting telecontrol **Switching** to be carried out. Telecontrol **Switching Shall** be recorded on the relevant **Switching** schedule.

12.4 Transfer, Suspension and Completion

12.4.1 Although not a mandatory requirement the use of a Control Transfer Certificate is encouraged to aid the transfer, suspension, and completion of **NOP 4**.

12.4.2 As a minimum the Control Transfer Certificate **Shall** include the following details:

- Purpose of the outage
- The **System** or part thereof being transferred
- Control/ownership boundary points and **Switching** devices
- De-energising and re-energising points on the **System**
- Operational restrictions or **System** abnormalities
- Special conditions including details of any subsequent transfer to another **Field Control Engineer**
- The name of the **Field Control Engineer** and **Control Engineer** at time and date of transfer between parties
- Confirmation of 'operational start' on the **System** following transfer back to the **Control Engineer**
- Customer interruption and restoration times
- Any additional comments

12.4.3 Where the transfer of **NOP 4** to another **Field Control Engineer** is required, the **Control Engineer Shall** co-ordinate and record events accordingly. The active **Field Control Engineer Shall** communicate directly with the **Control Engineer** and request the **Switching** schedule item "transfer **NOP 4**". As part of this request, the active **Field Control Engineer Shall** confirm the operational state of the **System** to the **Control Engineer** who **Shall** confirm the end of **NOP 4** and retake control of the **System**. The **Control Engineer Shall** update the control **Switching** schedule accordingly. The **Control Engineer** may then transfer control of the network to another suitably authorised **Field Control Engineer** in accordance with **NOP 4** procedures.

12.4.4 Where **NOP 4** ends and the **Switching** schedule is not complete, the **Field Control Engineer Shall** confirm to the **Control Engineer** which items on the **Switching** schedule have been completed. The **Control Engineer Shall** record these items as complete. The **Control Engineer Shall** update the control diagram to accurately reflect its current operational status. The **Control Engineer Shall** note any outstanding **Safety Documents**.

12.4.5 The conclusion of **NOP 4** status **Shall** be recorded on the **Switching** schedule and where applicable the Control Transfer Certificate as "End **NOP 4**". The **Control Engineer Shall** be informed as to the operational state of the **System** and any alterations that have taken place. The **Field Control Engineer Shall** not carry out any further **Switching** without the agreement of the **Control Engineer**.

13 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New document created	NA	1.00	Richard Gough

No	Overview of Amendments	Previous Document	Revision	Authorisation
02	Minor revisions made	PR-NET-OSM-021 (Rev1.00)	1.01	Richard Gough
03				

Appendix A Network Operating Procedure Training and Authorisation Matrix

The training/authorisation of **SSEN-D** staff for the user of **Network Operating Procedures** should be in accordance with the following matrix:

Table A.1

Skill Level	NOP 1	NOP 2	NOP 3	NOP 4R	NOP 4	SCP 3
Level One (e.g., craftsmen/newly authorised team managers or retraining)	**Y**					
Level Two (e.g., craftsmen/team managers with increased experience)	**Y**	**Y**				
Level Three (e.g., experienced craftsmen/team managers)	**Y**	**Y**	**Y**	**Y**		
Level Four (e.g., experienced craftsmen/team managers)	**Y**	**Y**	**Y**	**Y**	**Y**	**(Y)**

Key:

NOP **Network Operating Procedure**

SCP **System** Control Procedure

SCP 3 – managing the control of a part of the **System** by a **Control Engineer** using contingency/paper diagrams from a suitable location.

Notes:

* Generally, staff at level three will be training and authorised for **NOP 4** earlier than **NOP 3**.

Where appropriate all current authorisations should be reviewed in line with the above matrix.

Future authorisations to **NOP 4** should only be **Approved** for staff capable of taking control of complete feeders and operating to SCP 3 in emergencies.

The suitability of individuals for authorisation at Levels One to Four will depend on their aptitude and experience.