

## 1. SCOPE

This Safety Procedure supplements Part B of the Safety Rules and gives guidance on preparation, issue, receipt, transfer, clearance and cancellation of **Safety Documents**.

This document includes relevant guidance previously contained in MSP 4.1, which has now been withdrawn.

## 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   |
|----------------|----------|---------------|---|
| Dec 2010       | 4        | Nigel Mills   | General review and update.<br>Combines MSP 4.1 and 4.6.<br>10.6 Restoration of test supplies.<br>10.9 & 10.10 Examples of what testing can be done under <b>PFW</b> and what work can be done under <b>SFT</b> .<br>10.12 A <b>LWC</b> shall not be left issued longer than 6 months.<br>10.16.2 Guidance on sharing a <b>Drain Earth</b> .<br>11.3 Allows for the advanced preparation of <b>Safety Documents</b> .<br>11.5 Removes restrictions on two alterations only on a <b>Safety Document</b> .<br>11.8 Allows for the electronic production of <b>Safety Documents</b> .<br>13 & 14 Further examples given.<br>15.1.1 Added good practice of stating voltage of POI's and <b>Earthing Devices</b> on <b>Safety Document</b> .<br>16 Changes to headings and guidance within Section 2(i) and 2(ii) of <b>SFT</b> . |
| July 2018      | 5        | Paul Williams | Review and minor updates.<br>10.10 opening of cables, compartments or chambers and/or making or breaking connections required to facilitate testing may take place.<br>10.18 Pre 2010 <b>Safety Documents</b><br>18.3 updated reference to PSSI 9   |
| September 2018 | 6        | Paul Williams | Adding back previously omitted appendices 3-5<br>NB change markers retain changes made in issue 5   |

## 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.

## DISTRIBUTION

This document is part of the Management Safety Procedures but does not have a maintained distribution list.

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## 6. REFERENCE

Further information with regard to **Safety Documents, Safety Keys, Control Persons** and associated procedures are given in:

|                         |   |
|-------------------------|---|
| OPSAF-11-002            | - MSP Definitions   |
| OPSAF-11-049 (MSP 1.10) | - Management of Drain Earths for Work on Steel Tower Overhead Lines.  |
| OPSAF-11-004 (MSP 1.2)  | - Operational Compliance Auditing.  |
| OPSAF-11-016 (MSP 2.5)  | - Procedures to be Adopted when the Safety Rules (Safety Document Process and/or Safety Features) cannot be applied       |
| OPSAF-11-022 (MSP 2.11) | - Procedure for Wood Pole Overhead Line (up to 33kV) Maintenance by More than One Working Party within One Isolated Zone. |
| OPSAF-10-003 (PSSI 3)   | - High Voltage Metal-Enclosed Switchgear  |
| OPSAF-10-004 (PSSI 4)   | - High Voltage Overhead Lines - Work on Phase Conductors  |
| OPSAF-10-006 (PSSI 6)   | - Demarcation of Work Areas in Substations  |
| OPSAF-10-009 (PSSI 9)   | - Testing High Voltage Apparatus  |
| SWG-13-137              | - Fused Ring Main Unit - Non-Withdrawable YSE Type TYKE Mk1   |

## 7. DEFINITIONS

Terms printed in bold type are as defined in the ScottishPower Safety Rules (Electrical and Mechanical) 4<sup>th</sup> Edition.

Terms printed in italics are as defined in the Definitions document (OPSAF-11-002) of the Management Safety Procedures.

## 8. DANGERS

In the context of **Safety Documents, Danger** may arise from:

- (i) Work/testing being carried out on the wrong **Plant/Apparatus** or beyond the scope of the precautions taken to achieve **Safety from the System**.
- (ii) Illegibility or ambiguity of the **Safety Document**.
- (iii) Inconsistent or incorrect identification of **Plant** or **Apparatus**.
- (iv) Imprecise specification of work or testing to be done in relation to the precautions taken.

## 9. USE OF SAFETY DOCUMENTS

### 9.1 Permit for Work (PFW)

For work within or liable to infringe **Safety Distance** of **HV Apparatus** the appropriate precautions to achieve **Safety from the System** shall be taken and a **Permit for Work** shall be issued.

A copy of the **Permit for Work** is in Appendix 3.

### 9.2 Sanction for Test (SFT)

For testing of **HV Apparatus** the appropriate precautions to achieve **Safety from the System** shall be taken and a **Sanction for Test** shall be issued.

A copy of the **Sanction for Test** is in Appendix 4.

### 9.3 Limited Work Certificate (LWC)

9.3.1 A **Limited Work Certificate** shall be issued for work or testing on or adjacent to **Plant** or **HV Apparatus** when it is considered necessary to confirm instructions in writing and to achieve **Safety from the System** by:

- (a) in the case of work - limiting the work or work area; or
- (b) in the case of testing - limiting the testing or testing area.

9.3.2 Work or testing on **LV Apparatus** where **HV** isolation is required:

Where work or testing on **LV Apparatus** requires **HV** isolation, but there is no significant risk of infringing the **Safety Distance** to **HV Apparatus**, with the exception of paragraph 9.3.3 below, a **Limited Work Certificate** shall be issued.

Where the work or testing on **Plant** or **LV Apparatus** is to be carried out within, or there is a significant risk of infringing, the **Safety Distance** of **HV Apparatus**, then a **Limited Work Certificate** is not sufficient and a **Permit for Work** shall be issued.

9.3.3 Work on **LV** overhead **Apparatus**, where there is no significant risk of infringing the **Safety Distance** to **HV** overhead **Apparatus**:

When work or testing is to be carried out on or adjacent to overhead **LV Apparatus**, and the means of achieving **Safety from the System** includes isolation from the **HV System** by **HV Switching** (e.g. the removal and retention of **HV** fuses or sectionalisers, operation of an **ABSD**, etc) then no **Safety Document** need be issued for work or testing on the **LV Apparatus** provided that:

- (a) The point of **HV** isolation is within sight of the point of work or testing; and
- (b) The point of **HV** isolation can be visually traced over its whole length to the point of work or testing; and
- (c) The point of work or testing is outside **Safety Distance** to **HV Apparatus**.

9.3.4 A **Limited Work Certificate** may be issued for work or testing on or near **Plant** or **LV Apparatus** when it is considered necessary to confirm oral instructions in writing and to detail the precautions to achieve **Safety from the System**.

A copy of the **Limited Work Certificate** is in Appendix 5.

## 10. GENERAL – PROCEDURAL REQUIREMENTS FOR SAFETY DOCUMENTS

10.1 All **Safety Documents** issued by a **Senior Authorised Person** shall be held personally by the recipient. **Card Safes** shall not be used.

10.2 **Safety Documents** shall only be prepared, issued, transferred and cancelled by **Senior Authorised Persons** and received and cleared by suitably **Authorised Persons**. All **Senior Authorised Persons/Authorised Persons** shall be issued with a Certificate of Authorisation detailing those **Safety Documents** which they may prepare, issue, transfer and cancel and/or receive and clear.

10.3 A **Safety Document** shall be issued to the **Authorised Person** in charge of each **Working Party**.

10.4 A **Senior Authorised Person** may issue a **Safety Document** to himself, other than a **Permit for Work** under *Field Control* conditions.

- 10.5 **Persons** authorised in writing to receive **Safety Documents** have all the responsibilities of an **Authorised Person** (as detailed in Part C of the Safety Rules). Additionally, they shall be responsible for implementing any procedures required by the Safety Rules within the limits imposed by their Certificate of Authorisation.
- 10.6 When a **Sanction for Test** is in force essential test supplies which are necessary for the testing to take place may be restored. Example: during tap changer commissioning and testing tap changer fuses may be restored. Also **Primary Earths** may be removed or replaced to facilitate testing, provided **Safety from the System** is maintained.
- 10.7 When a **Sanction for Test** is issued, no other **Safety Document** shall be in force within the **Isolated** zone. The **Senior Authorised Person** shall confirm with the **Control Person** that no other **Safety Document** is in force before issuing a **Sanction for Test**.
- 10.8 There shall be no suspension of **Safety Documents** in Energy Networks. When it is necessary to withdraw staff working or testing under a **Safety Document** to allow other work or testing to proceed, the **Safety Document** shall be cleared and cancelled.
- 10.9 Whilst a **Permit for Work** is in force no testing shall be carried out that may introduce **Danger**. Test voltages shall not be applied where they may introduce **Danger** other than when applied as part of an **Approved** procedure that adequately controls the **Dangers**. Example: Measurement of the insulation resistance of permali bar within a YSE TYKE RMU (SWG-13-137).
- 10.10 Whilst a **Sanction for Test** is in force, beside the testing itself, only the activities associated with
- spiking/gun removal/opening/cutting/separating of cables and their cores,
  - opening/closing compartments or chambers
  - making or breaking of connections
- required to facilitate testing may take place.
- They shall be done under the **Personal Supervision** of the **Authorised Person** who has received the **Sanction for Test**. Safety precautions, such as **Primary Earths** or **Drain Earths**, required to meet the requirements of the Safety Rules and **Company** Safety Instructions, shall be in place before they are carried out.
- 10.11 Both testing and work may be carried out under a **Limited Work Certificate**.
- 10.12 A **Limited Work Certificate** shall not be left in an issued state longer than necessary and the maximum period of issue shall be six months. If the work is still not finished after the six month period, the **LWC** shall be cancelled and a replacement document issued.
- 10.13 At all times when work or testing is taking place under the terms of a **Safety Document**, the recipient of the **Safety Document** shall provide **Immediate Supervision** to all members of the **Working Party**. However, **Personal Supervision** shall be provided when:
- Required by the **Senior Authorised Person**;
  - Stated on the **Safety Document**;
  - A procedure requires it;
  - The document holder identifies the need;
  - As required by the Safety Rules or PSSIs.

- 10.14 Further **Persons** joining a **Working Party** shall report to the recipient of the **Safety Document** before commencing work or testing.
- 10.15 No **Person** shall work under a **Safety Document** except under the **Supervision** of the recipient. If the recipient is not able to undertake responsibility for additional **Persons** another **Safety Document** shall be issued.
- 10.16 When it is necessary to issue more than one **Permit for Work** in an **Isolated** zone requiring **Drain Earths** to achieve **Safety from the System**, each **Permit for Work** shall, where reasonably practicable, have its own separate issue of **Drain Earths**. Where this is not reasonably practicable the use of *Fixed Drain Earths* or shared **Drain Earths** may be appropriate.
- 10.16.1 *Fixed Drain Earths* (Steel Tower Overhead Lines Only). These shall be managed in accordance with OPSAF-11-049 (MSP 1.10).
- 10.16.2 Shared **Drain Earths** (Wood Pole Overhead Lines at 33kV or below). The sharing of a **Drain Earth** between adjacent **Working Parties** is only permitted where there is no other reasonably practicable solution. Where there is no need to remove the earth during the course of work the **Senior Authorised Person** shall apply a **Primary Earth** prior to the issue of the **Safety Document** and he shall quote the **Primary Earth** in Section 2(i) of the **PFW** “precautions taken” section. Alternatively, where a **Drain Earth** needs to be removed during the course of the work, and is to be shared by more than one **Working Party**, it shall be issued to one document holder and reference to it shall be included in the “further precautions” section of the **PFW** (Section 2(ii)).

For example, at a pole mounted cable termination, the **Drain Earth** would be issued to the Linesman and in Section 2(ii) of the **PFW** words added that are similar to:

“As soon as practicable apply a **Drain Earth** to the cable termination being prepared under Joints’s **PFW** XXXX.”

And on the Joints’s **PFW** in Section 2(ii) add words that are similar to:

“Before erecting cable termination up the pole liaise with **PFW** XXXX holder for provision of **Drain Earths**.”

- 10.17 It is permissible during training for a trainee to prepare **Safety Documents** on behalf of a **Senior Authorised Person** but responsibility for the content of the **Safety Document** remains with the **Senior Authorised Person**, and only he shall sign the Issue section.
- 10.18 Example Energy Networks **Safety Documents** are shown in appendices 3 to 5. The format of **Safety Documents** is updated periodically, with the last major update in 2010. It is important that only current version **Safety Documents** are used. There is a version date in the margin or footer of **Safety Documents** intended for hand-written completion. Pre-2010 **Safety Documents** shall not be used.

## 11. GENERAL – COMPLETION OF SAFETY DOCUMENTS

- 11.1 All entries on a **Safety Document** shall be legible and unambiguous.
- 11.2 A ballpoint pen or similar shall be used to ensure that originals and copies are clearly defined.
- 11.3 Where a **Safety Document** has been prepared in advance the **Senior Authorised Person** shall review the content and confirm that it accurately records all details before seeking the **Consent** of the **Control Person** to issue.
- 11.4 All sections of a **Safety Document** shall be completed. Where part of a **Safety Document** is not applicable, N/A or NIL shall be inserted in order to avoid confusion and to ensure that no entry is inadvertently overlooked.
- 11.5 During preparation of the **Safety Document** minor errors may be deleted and the correct details entered. Overwriting of an entry is not permitted. The preparing/issuing **Senior Authorised Person** and the recipient must initial each correction. Any correction shall be such that the content of the **Safety Document** remains legible and unambiguous.
- 11.6 There shall be no alteration to the content of a **Safety Document** after the **Control Person** has **Consented** to its issue.
- 11.7 Terms frequently used may be abbreviated in accordance with Appendix 1 to this document. Abbreviations in everyday common use (such as Rd. for Road, No. for Number, & for and, etc) are also permitted.
- 11.8 Computer generated **Safety Documents** are acceptable provided they replicate the format of the paper versions and the prototype is approved by the person declared as the “Document Owner” of this MSP. When using computer generated **Safety Documents** the “Site Copy” shall be clearly marked as such by an entry of the words “SITE COPY” at the top of the front page. Both the “Site Copy” and the “Retained Copy” shall be signed using a ballpoint pen by the **Persons** issuing and receiving the document. A computer generated **Safety Document** may have additions or alteration made, all such entries shall be made to both copies in ballpoint pen. Alterations shall be initialled by both the issuing **Person** and the recipient. Once issued, all other entries on the “Site Copy” within the Transfer, Clearance and Cancellation sections shall be made using a ballpoint pen.

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## 12. PROCEDURE – PREPARATION, ISSUE AND RECEIPT OF SAFETY DOCUMENTS

- 12.1 The appropriate **Control Person** shall issue instructions to achieve **Safety from the System**. These instructions shall include the operation of all relevant LV fuses or links. When necessary, the appropriate **Control Person** shall confirm actions to achieve **Safety from the System** with the appropriate **Control Person** of adjacent **System(s)**. The *Substation Control Person* is responsible for isolation of air and oil etc **Systems**, and LV auxiliary supplies.
- 12.2 The **Senior Authorised Person** shall confirm with the appropriate **Control Person(s)** that all precautions taken to achieve **Safety from the System** shall be maintained and shall obtain **Consent** to the issue of the **Safety Document**. The name of the **Control Person(s)** (*System & Substation*) **Consenting** to the issue shall be entered on the **Safety Document**.
- 12.3 **Safety Documents** shall be issued at the **Location** where the work or testing is to be carried out, except when an **Approved** procedure is being followed (e.g. OPSAF-11-022, MSP 2.11). The **Senior Authorised Person** issuing the **Safety Document** and the **Authorised Person** receiving the **Safety Document** shall, therefore, meet at the **Location** of the work or testing and carry out the appropriate procedures detailed in Part B of the Safety Rules referring to the issue and receipt of **Safety Documents**.
- 12.4 The division of the preparation and issue responsibilities of a **Permit for Work** and **Limited Work Certificate** enables the two processes to be completed by different **Senior Authorised Persons** where this is required. However, these documents shall, where reasonably practicable, be issued immediately after the **Senior Authorised Person** has signed Section 2 in the case of a **Permit for Work** and Section 3 in the case of a **Limited Work Certificate**. The **Senior Authorised Person** completing and signing the Issue section of these **Safety Documents** is accountable for the issue of the document directly to the recipient.
- 12.5 When **Permits for Work** and **Limited Work Certificates** are not to be issued immediately after they have been prepared and consented to, they shall be retained in the original **Safety Document** book and the **Senior Authorised Person** responsible for completing them up to this point shall be responsible for retaining them and any associated documents and **Keys** in safe custody.
- 12.6 When the appropriate **Control Person** has been notified of the relevant detail of a **Permit for Work** or **Limited Work Certificate** and has given **Consent** to its issue, it shall, from that moment, be treated as if it were in force. The safety precautions applied shall not be removed until the **Safety Document** is cancelled even though it may not have been issued.
- 12.7 To cancel a **Safety Document** that has not been issued, the **Senior Authorised Person** shall enter “NOT ISSUED” in the Clearance section. N/A shall be entered in the Issue and Receipt sections.
- 12.8 A **Sanction for Test** shall be prepared and issued by the same **Senior Authorised Person**.



- 12.9 The act of obtaining **Consent** to the precautions taken, handing over control of the **Isolated** zone in which testing is to take place, and issuing a **Sanction for Test** is a continuous process, there shall therefore be no interval between the **Senior Authorised Person** signing the Issue section and the recipient of the **Sanction for Test** signing the Receipt section.
- 12.10 Immediately before signing the preparation stage of a **Permit for Work** or **Limited Work Certificate**, or the issue stage of a **Sanction for Test**, the **Senior Authorised Person** shall inform the appropriate **Control Person** of the relevant details for record purposes.
- 12.11 The appropriate **Control Person** shall keep a record of **Safety Documents**, which need not be a word for word copy but shall include the following details:
- (i) The number of the **Safety Document**.
  - (ii) The **Point(s) of Isolation** and position of **Primary Earth(s)**.
  - (iii) The date and time of **Consent** to the issue of the **Safety Document**.
  - (iv) The name of the **Senior Authorised Person** issuing the **Safety Document** and the name of the **Authorised Person** to whom it is to be issued.
  - (v) The number of the **Key Safe** used.
  - (vi) The **Location** of the work or testing and the nature and extent of the work or testing to be carried out.
- 12.12 The **Senior Authorised Person** issuing the **Safety Document** shall ensure that the contents of the document and any other related document issued with it are carefully explained to the recipient and satisfy himself that the recipient understands the contents. This shall include identifying the **Location** of **Points of Isolation** and **Earthing Devices**. He shall then complete the Issue section and issue the **Safety Document** together with any **Key Safe Key** and other relevant items. Before signing the **Safety Document** the recipient shall indicate that he fully understands the limits of the work/testing to be done, the requirements imposed and the responsibilities accepted by him under the Safety Rules as recipient of the **Safety Document**. He shall complete the Receipt section of the **Safety Document** and retain it and any **Key Safe Keys** and other relevant items in safe custody until such time as it is cleared and returned to a **Senior Authorised Person** or transferred to a new recipient.
- 12.13 The recipient of a **Safety Document** has a clear responsibility to instruct the **Persons** working under his charge, to comply with any conditions, instructions or limitations specified on the **Safety Document**. This shall apply when setting **Persons** to work and when further **Persons** join the **Working Party**.

### 13. COMPLETION – ALL SAFETY DOCUMENTS – SECTION 1

#### 13.1 Document Number

13.1.1 The **Safety Document** number shall be provided by the **Control Person Consenting** to the issue of the **Safety Document**.

13.1.2 When a **Safety Document** is prepared by a **Senior Authorised Person** without reference to a Control Centre the **Senior Authorised Person** shall number the **Safety Document** in accordance with the numbering system detailed in Appendix 2 of this document.

#### 13.2 Key Safe Number

The **Senior Authorised Person** issuing the **Safety Document** shall, when applicable, record the **Key Safe** number(s) in the designated box or immediately below it if there is insufficient room.

For Grid **System Locations**, when multiple **Key Safe(s)** are used at remote Energy Networks **Location(s)**, the number(s) of those **Key Safe(s)** need not be recorded on the **Safety Document(s)**.

#### 13.3 Section 1(i) – Location

13.3.1 When the work or testing is within the boundary of a substation or power station the entry shall be the name of that substation or power station.

13.3.2 Work or testing not within the boundary of a substation or power station:

If the work or testing involves the complete circuit the entry shall make reference to the voltage level of the **Plant/Apparatus**, the circuit name/number and/or the termination points of the circuit.

Examples:

- (i) 11kV Cable section Woodend s/s to Oak Street s/s.
- (ii) Wharton to Pimlico 33kV O/H Line.
- (iii) 400kV ZV Route Strathaven to Harker.

If the work or testing does not involve the complete circuit the entry shall, where practicable, be the geographic location. If this is not practicable reference shall be made to the circuit name/number and/or the termination points of the circuit.

Examples:

- (i) Field adjacent to A68 Ancrum.
- (ii) Joint bay outside 23 Church Street, Greenock.
- (iii) Hilltop Farm, Maesbury.

### 13.4 Section 1(ii) – Plant/Apparatus Identification

13.4.1 The **Plant/Apparatus** on which work or testing is to be carried out shall be identified on the **Safety Document** in such a way that there is no inconsistency with the identification on the **Plant/Apparatus** itself. The voltage level of the **Plant/Apparatus** shall be stated. Where temporary identification is attached to the **Plant/Apparatus** it shall remain attached and be used for identification purposes for as long as the **Safety Document** is in force.

#### 13.4.2 Substation **Plant/Apparatus** (Ground Mounted)

Examples:

- (i) 132/33kV GT1.
- (ii) Marshside 33kV Line Isolator.
- (iii) 11kV/110V VT on the 11kV/33kV T1 Panel.
- (iv) 11kV RMU and 11kV/415V Transf.

Where work is confined to the withdrawable portion of a circuit breaker it shall be removed from the service position and all spout shutters shall be **Locked** shut (operational locks are adequate for this purpose). If the work is to be done within the confines of the switchroom it shall be carried out under a **Limited Work Certificate** and the **Plant/Apparatus** identification shall make it clear that work is confined to the withdrawable portion only.

Example:

- (i) Market Street 11kV CB withdrawable portion only.

#### 13.4.3 Overhead Lines

Overhead Line circuits shall be identified using some or all of the following information as appropriate.

- (i) Name of the **Isolated** section of line (with reference to the **Location** of the **Points of Isolation**).
- (ii) Pole numbers or tower numbers.
- (iii) Line Number.
- (iv) Voltage.
- (v) **Circuit Identification** (Colour Plates or symbols). Note: **Circuit Identification** shall not be quoted as part of the **Plant/Apparatus** identification when the work on or testing of an overhead line is to be carried out under a **Limited Work Certificate**.
- (vi) Unique identification systems applied to poles and pole mounted **Apparatus** (e.g. the Line/Pole/**Plant** numbering system used in Energy Networks South). See examples (v), (vi), (vii) below.

Examples:

- (i) Towers AB4 to AB17 inclusive on the Penworthy to Stourbridge 132kV overhead line. Circuit colours red/white/red.
- (ii) Poles 27 to 32 inclusive on the Marsh Rd S/S to Abbey Lane S/S 33kV O/H Line.
- (iii) Poles 12 to 23 inclusive on the 11kV Main Line (L5578) between Bancroft S/S and Moorside ABSD.
- (iv) Newark PTE to Bowhill PTE inclusive on the 11kV Main Line Broadmeadows S/S to L338 ABSD (where no pole numbers exist).
- (v) Poles 3 to 10 inclusive on Oak Farm 11kV Spur Line (L6844).
- (vi) Poles 7 and 8 on 11kV Main Line L479.
- (vii) Barn Hey PM S/S 06/3289/021 on Pole 25 11kV Main Line L329.
- (viii) PMFU 06/3389/017 on Pole 2 11kV Spur Line L027.

Note: The Line numbers (e.g. L5578 & L6844) apply to identification systems used in Energy Networks South.

#### 13.4.4 Underground Cables

For work or testing on an underground cable, it shall be identified by its voltage level and circuit name with reference to the **Location of Points of Isolation**. If the underground cable is part of a mixed overhead line/underground cable circuit then the **Circuit Identification** shall also be quoted where appropriate.

Examples:

- (i) 11kV cable between Smith St. and Manor Rd. substations.
- (ii) The 33kV cable and associated pilot cable between Marshside and Pendle Way primary S/S.
- (iii) The No.1 33kV circuit between Carr Lane and Dover Road substations.
- (iv) The cable section between poles 17 and 18 on 11kV Main Line (L1914) between Bancroft S/S and Moorside S/S.
- (v) 132kV cable between Penworthy Grid S/S and Tower AB1 on the Penworthy to Stourbridge overhead line. Circuit colours red/white/red.

### 13.5 Section 1(iii) – Work/Testing to be Done

13.5.1 The description shall be sufficiently precise to indicate to the recipient of the **Safety Document** the extent of the work or testing which can be done consistent with the safety precautions taken to achieve **Safety from the System** and any further precautions taken to avoid **System** derived hazards. The description shall be specific and may refer to maintenance schedules, test procedures or job specifications where applicable.

13.5.2 When **Circuit Identification** (Colour Plates or symbols) used to identify an overhead line circuit require to be changed, the existing **Circuit Identification** and the new **Circuit Identification** shall both be quoted in the “Work to be Done” section of the **Safety Document**.

## 14. COMPLETION – LIMITED WORK CERTIFICATE – SECTIONS 2, 3, 4 AND 5

### 14.1 Section 2 – Condition of Plant/Apparatus

This shall describe the state of the **Plant** or **Apparatus** with respect to the rest of the **System**. It may for example state here that the **Apparatus** is **Live** and in service.

Example:

- (i) Pit Street 11kV OCB moving portion is withdrawn from Service Position and electrically & mechanically discharged.
- (ii) RMU and Transformer **Live** at 11kV.
- (iii) Lord Street to Dean Road 11kV Feeder and associated pilot cable are **Isolated**. LV AC and 30V DC supplies in relay panel are **Live**.

### 14.2 Section 3(i) – Limits of Work/Testing or Work Area or Other Precautions Taken to Achieve Safety from the System

14.2.1 For **Plant** and **Apparatus**, the limits which are imposed upon the work or testing to be done shall be specified. This shall include any physical limits of the work area to achieve **Safety from the System**.

14.2.2 Where **LV Apparatus** is **Isolated**, all **Points of Isolation** shall be specified and the state and means of securing the isolation identified. Any other precautions to achieve **Safety from the System** shall be specified.

14.2.3 For work on protection **Systems**/relays involving the potential for open circuiting current transformers the associated **HV** circuits shall be **Isolated** unless there is other provision for a safe system of work (e.g. shorting links on the CT secondary). All precautions to achieve **Safety from the System** shall be specified.

### 14.3 Section 3(ii) – Further Precautions to be Taken During the Course of Work/Testing to Avoid System Derived Hazards

14.3.1 All precautions to avoid **System** derived hazards which are to be taken during the work or testing shall be specified. It is not acceptable to specify the hazards and leave the precautions to the **Person** in charge of the work/testing. Where further precautions are included on another document e.g. **Selected Person's Report**, or other Procedure required by the **Senior Authorised Person**, reference shall be made to that document.

These additional precautions may also include instructions on sequence or method of work or testing, on the avoidance of hazards from adjacent **Plant** and **Apparatus**, on the wearing of *Personal Protective Equipment* and the provision of ventilation, where any of these are necessary to maintain **Safety from the System**. Reference may also be made to **Company Safety Instructions** and **Power Systems Safety Instructions**.

14.3.2 If stored energy is safely contained but may be released before or during the course of the work or testing, the precautions to be taken to ensure **Safety from the System** shall be specified unless such release is a normal part of the work or testing to be done and is specified in written instructions identified in the "Work / Testing to be Done" section of the **Limited Work Certificate**.

14.3.3 When venting, purging, draining or adjustment of levels is required as part of the safety precautions to be taken after the issue of the **Limited Work Certificate**, this shall be specified.

### 14.4 Section 3 – Confirmation of Safety Precautions

14.4.1 When **LV** isolation, venting, purging, draining or lowering of levels has been completed as part of the safety precautions taken to achieve **Safety from the System**, the name of the *Substation Control Person* confirming that these precautions will be maintained shall also be entered on the **Limited Work Certificate**.

14.4.2 The **Senior Authorised Person** shall then sign Section 3, entering the time and date of signing, certifying that the safety precautions in Sections 3(i) and 3(ii) are adequate to provide **Safety from the System** in respect of the work or testing detailed in Section 1.

### 14.5 Section 4 – Issue

The **Senior Authorised Person** issuing the **Limited Work Certificate** shall complete Section 4 as follows:

- (i) Where appropriate, the **Key Safe Key** number shall be entered in the space provided. If no **Key Safe Key** is issued, N/A shall be entered.
- (ii) The quantity of **Safety Keys** which are to be made available with the **Limited Work Certificate** for testing purposes shall be recorded. If no **Safety Keys** are to be made available, N/A shall be entered.
- (iii) Where applicable, the **Selected Person's Report** number shall be recorded on the **Limited Work Certificate**. If no **Selected Person's Report** is issued, N/A shall be entered.

The **Senior Authorised Person** shall obtain the **Consent** of the **Control Person(s)** to the issue of the **Limited Work Certificate** and shall enter the name(s) in Section 4.

The **Senior Authorised Person** shall then complete and sign Section 4 of the **Limited Work Certificate**, also entering the date and time of signing. He shall then issue the **Limited Work Certificate** together with the items identified in Section 4.

## 14.6 Section 5 – Receipt

- 14.6.1 The **Senior Authorised Person** issuing the **Limited Work Certificate** shall ensure that the contents of the document and any document issued with it are carefully explained to the recipient and shall satisfy himself that the recipient understands those contents.
- 14.6.2 The recipient shall then complete and sign Section 5 of the **Limited Work Certificate**, also entering the date and time of signing.

## 15. COMPLETION – PERMIT FOR WORK – SECTIONS 2, 3 AND 4

### 15.1 Section 2(i) – Precautions Taken to Achieve Safety from the System

- 15.1.1 All **Points of Isolation** and positions of **Earthing Devices** shall be identified together with their state (e.g. open, closed, removed etc) and whether they are **Locked** or immobilised. Identification shall include their geographical **Location**. It is good practice to also state operating voltage where necessary to achieve clarity.
- 15.1.2 If precautions are established prior to the issue of the **Permit for Work** they shall be recorded in Section 2(i). If they are to be established after the issue of the **Permit for Work** they shall be entered in Section 2(ii).
- 15.1.3 **Points of Isolation** and position of **Earthing Devices** shall be listed separately on the **Permit for Work**.
- 15.1.4 Where isolation has been achieved by operation of a non-withdrawable **Isolating Device** such as an oil switch or an air break isolating switch, the **Point of Isolation** shall be described by giving the **Location**, identification and status of the device.

Examples:

- (i) In “A” Substation the “B” 11kV oil switch open and safety **Locked**.
- (ii) 11kV Air break switch disconnecter (name/number) open and safety **Locked**.
- (iii) In “A” Substation the “B” 11kV top and bottom links open and access gate safety **Locked**.
- (iv) In “A” Substation the “B” 11kV panel busbar/circuit disconnecter is open and safety **Locked**.
- (v) At Barton Primary S/S:
  - i) The Grange Hall 33kV line isolator is open & S/L.
  - ii) The Grange Hall 33kV busbar isolator is open & S/L.
- (vi) At Tongland 132kV S/S: Isolator 103, 113 & 128 are open & S/L.

15.1.5 Where isolation has been achieved by operation of a withdrawable or removable **Isolating Device** such as a circuit breaker, overhead line jumpers, sectionalisers/fuses/ solid links or transformer **LV** links, the **Point of Isolation** shall be described by giving the **Location** and identification of shutters, jumpers or links which have been **Locked** off, disconnected or opened/removed.

Examples:

- (i) In "A" Substation, "B" 11kV panel busbar shutters closed and safety **Locked**.
- (ii) On ABSD 243 to ABSD 376 11kV overhead line, jumpers disconnected at pole 16 and removed (or secured).
- (iii) The West Nisbet 11kV PMAS removed and retained.
- (iv) In "A" Substation transformer **LV** links open and safety **Locked**.

15.1.6 Where a **Primary Earth** has been applied by means of a circuit breaker, the entry shall state the **Location** and identification of the circuit breaker and whether it is in the Busbar or Circuit Earth position.

Example:

- (i) In Kilbowie Substation Grid 1 33kV OCB closed to circuit earth position and safety **Locked**.

15.1.7 Where a **Primary Earth** has been applied by means of an earth switch, the entry shall state the **Location** and identification of that earth switch.

Example:

- (i) In "C" Substation, the "D" 33kV earth switch closed and safety **Locked**.

15.1.8 Where a **Portable Primary Earth** has been applied, the entry shall state the precise **Location** and shall include the identification of spouts or links of associated switchgear.

Examples:

- (i) In "A" Substation **Portable Primary Earths** applied to "B" panel circuit spouts.
- (ii) On ABSD 243 to ABSD 376 11kV overhead line **Portable Primary Earths** applied at pole 16.
- (iii) On the Windmill 11kV overhead spur **Portable Primary Earths** applied at pole 3.
- (iv) At Barton Primary S/S **Portable Primary Earths** applied at:
  - i) 33kV busbars between Grange Hall CB and the Grange Hall line isolator.
  - ii) 33kV busbars between the Grange Hall CB and the Grange Hall busbar isolator.



Note: Where more than one **Portable Primary Earth** is applied at the one pole (e.g. one on either side of jumpers to be broken) then the position of each **Portable Primary Earth** shall be clearly indicated.

Example:

- (i) On ABSD 243 to ABSD 376 11kV overhead line **Portable Primary Earths** applied on both sides of pole 17.

15.1.9 When transformer fans, pumps and/or tap changer **LV** supplies require to be **Isolated** as part of the precautions to achieve **Safety from the System**, this shall be completed before the **Permit for Work** is issued and shall be recorded in Section 2(i) of the **Permit for Work**.

15.1.10 The **Senior Authorised Person** preparing the **Permit for Work** shall decide, prior to its issue, whether actions to drain, vent or purge the **Plant** or **Apparatus** and to dissipate stored energy shall be done prior to commencement of work in which case it and any other precautions to achieve **Safety from the System** shall be entered on the **Permit for Work**.

15.1.11 The erection of Demarcation Boundaries shall be recorded.

Example of wording entered in Section 2(i):

Safe Working Area established in accordance with PSSI 6.

## 15.2 Section 2(ii) – Further Precautions to be Taken During the Course of Work to Avoid System Derived Hazards

15.2.1 All precautions to avoid **System** derived hazards which are to be taken during the work or testing shall be specified. It is not acceptable to specify the hazards and leave the precautions to the **Person** in charge of the work/testing. Where further precautions are included on another document e.g. **Selected Person's Report** or **Earthing Schedule**, reference shall be made to that document.

Where fixed **Earthing Devices** are to be used as **Drain Earths** these shall be specified. These additional precautions may also include instructions on sequence or method of work, on the avoidance of hazards from adjacent **Plant** and **Apparatus**, on the wearing of *Personal Protective Equipment* and the provision of ventilation, where any of these are necessary to maintain **Safety from the System**. Reference may also be made to **Company Safety Instructions** and **Power Systems Safety Instructions**.

Examples:

- (i) Apply **Drain Earths** in accordance with PSSI 4 quoting scheme number when applicable.
- (ii) Switchgear covers to be removed under **Personal Supervision** in accordance with PSSI 3.
- (iii) **LV** Board to be screened before work commences.

15.2.2 If stored energy is safely contained but may be released before or during the course of the work or testing, the precautions to be taken to ensure **Safety from the System** shall be specified unless such release is a normal part of the work or testing to be done and is specified in written instructions identified in Section 1(iii) "Work to be Done" section of the **Permit for Work**.

15.2.3 When venting, purging, draining or adjustment of levels is required as part of the safety precautions to be taken after the issue of a **Safety Document**, this shall be specified.

### 15.3 Section 2 – Confirmation of Safety Precautions and Consent of Control Person

15.3.1 When LV isolation, venting, purging, draining or lowering of levels has been completed as part of the safety precautions taken to achieve **Safety from the System** the name of the *Substation Control Person* confirming that these precautions will be maintained shall also be entered on the **Permit for Work**.

15.3.2 The **Senior Authorised Person** shall sign Section 2, entering the time and date of signing certifying that the safety precautions in Sections 2(i) and 2(ii) are adequate to provide **Safety from the System** in respect of the work detailed in Section 1.

### 15.4 Section 3 – Issue

15.4.1 The **Senior Authorised Person** issuing the **Permit for Work** shall complete Section 3 as follows:

- (i) Where appropriate, the number of the **Key Safe Key** shall be entered in the space provided. If no **Key Safe Key** is issued, N/A shall be entered.
- (ii) Where an **Earthing Schedule** is required, it shall be issued by the **Senior Authorised Person** specifying where and when Portable **Drain Earths**, and where applicable, *Bridging Earths* are to be applied. 'Yes' shall be entered in the space provided. If no **Earthing Schedule** is issued, N/A shall be entered.
- (iii) Where applicable, the number of Portable **Drain Earths** issued shall be recorded. If no **Drain Earths** are issued, N/A shall be entered.
- (iv) Where applicable, the **Selected Person's** Report number shall be recorded on the **Permit for Work**. If no **Selected Person's** Report is issued, N/A shall be entered.
- (v) & (vi) The number of **Circuit Identification** flags and wristlets issued and the circuit colour(s) shall be recorded. If no **Circuit Identification** flags and wristlets are issued, N/A shall be entered.

The **Senior Authorised Person** shall then complete and sign Section 3 of the **Permit for Work**, also entering the date and time of signing. He shall then issue the **Permit for Work** together with the items identified in Section 3.

## 15.5 Section 4 – Receipt

- 15.5.1 The **Senior Authorised Person** issuing the **Permit for Work** shall ensure that the contents of the document and any document issued with it are carefully explained to the recipient and shall satisfy himself that the recipient understands those contents.
- 15.5.2 The recipient shall then complete and sign Section 4 of the **Permit for Work**, also entering the date and time of signing.

## 16. COMPLETION – SANCTION FOR TEST – SECTIONS 2, 3 AND 4

### 16.1 Section 2(i) – Precautions Taken to Achieve Safety from the System which Shall Not be Altered

16.1.1 All **Points of Isolation** which shall not be restored by the recipient shall be identified together with their state (e.g. open, closed, removed) and whether they are **Locked** or immobilised. Identification shall include their geographical **Location**. Where appropriate, wording based on the examples given in Section 15 shall be used.

16.1.2 The position of **Earthing Devices** that shall not be removed by the recipient shall be identified. Where appropriate, wording based on the examples given in Section 15 shall be used.

16.1.3 **Points of Isolation** and position of **Earthing Devices** shall be listed separately.

16.1.4 All other precautions established prior to the issue of the **Sanction for Test** shall be recorded in Section 2(i) e.g. the erection of demarcation boundaries identifying the **Isolated** test area, **Danger Notices** & Testing in Progress Notices erected.

### 16.2 Section 2(ii) – The Condition of the Isolated Plant/Apparatus

16.2.1 **Points of Isolation** which may be restored, and the position of **Earthing Devices** which may be removed to facilitate testing shall be specified together with their state (e.g. open, closed, removed) as appropriate and whether they are **Locked** or immobilised. Where applicable the **Keys** to these devices shall be made available to the recipient of the **Sanction for Test**.

16.2.2 **Points of Isolation** that can be restored include **LV** auxiliary supplies (e.g. supplies to motor driven isolators or tap changer motors), air systems, or battery supplies. Restoration of **HV** or **LV System Points of Isolation** for phasing out or any other purpose is not permitted.

16.2.3 **Points of Isolation** and the position of **Earthing Devices** shall be listed separately.

16.2.4 State actions to avoid **Danger** by draining, venting, purging and containment or dissipation of stored energy. State also further precautions to be taken during the course of testing to avoid **System** derived hazards. These actions or precautions may be defined in a **Selected Person's** Report or test procedure issued with the **Sanction for Test**.

### 16.3 Section 3 – Issue

16.3.1 The **Senior Authorised Person** issuing the **Sanction for Test** shall complete Section 3 as follows:

- (i) Where appropriate, the number of the **Key Safe Key** shall be entered in the space provided. If no **Key Safe Key** is issued, N/A shall be entered.
- (ii) The quantity of **Safety Keys** which are to be made available with the **Sanction for Test** for testing purposes shall be recorded. If no **Safety Keys** are to be made available, N/A shall be entered.
- (iii) Where an **Earthing Schedule** is required, it shall be issued by the **Senior Authorised Person** specifying where and when Portable **Drain Earths**, and where applicable, *Bridging Earths* are to be applied. 'Yes' shall be entered in the space provided. If no **Earthing Schedule** is issued, N/A shall be entered.
- (iv) Where applicable, the number of Portable **Drain Earths** issued shall be recorded. If no **Drain Earths** are issued, N/A shall be entered.
- (v) Where applicable, the **Selected Person's** Report number shall be recorded on the **Sanction for Test**. If no **Selected Person's** Report is issued, N/A shall be entered.
- (vi) & (vii) The number of **Circuit Identification** flags and wristlets issued and the circuit colour(s) shall be recorded. If no **Circuit Identification** flags and wristlets are issued, N/A shall be entered.

The **Senior Authorised Person** shall then complete and sign Section 3 of the **Sanction for Test**, also entering the date and time of signing. He shall then issue the **Sanction for Test** together with the items identified in Section 3.

### 16.4 Section 4 – Receipt

16.4.1 The **Senior Authorised Person** issuing the **Sanction for Test** shall ensure that the contents of the document and any document issued with it are carefully explained to the recipient and shall satisfy himself that the recipient understands those contents.

16.4.2 The recipient shall then complete and sign Section 4 of the **Sanction for Test**, also entering the date and time of signing.

## 17. TRANSFER OF SAFETY DOCUMENTS

17.1 When work/testing is to be continued by an **Authorised Person** other than the initial recipient of a **Safety Document** it may be transferred to a new recipient in accordance with the requirements of Part B of the Safety Rules.

A **Sanction for Test** shall only be transferred under the **Personal Supervision** of a **Senior Authorised Person** at the **Location** where testing is being carried out, in the presence of the current and new recipients. There is, therefore, no time interval between the **Person** surrendering the **Sanction for Test** and the new recipient receiving it.

17.2 The Transfer Procedure for **Permits for Work** and **Limited Work Certificates** issued by Energy Networks allows for the safe transfer of responsibilities from one recipient to another without a face-to-face meeting between them.

- 17.3 When a **Safety Document** is to be transferred, the current recipient shall:
- Sign Part 1 of the Transfer Record and insert the time and date.
  - Confirm:
    - all **Persons** working under the **Safety Document** have been withdrawn;
    - the condition of the **Plant/Apparatus**;
    - work/testing completed and/or work/testing still to be done.
  - Surrender or account for all items issued with the **Safety Document**.
  - Surrender the **Safety Document** to a **Senior Authorised Person**.

The surrender of the **Permit for Work** or a **Limited Work Certificate** shall, where reasonably practicable, be carried out in the presence of a **Senior Authorised Person**.

- 17.4 The re-issue of a surrendered **Safety Document** under this Transfer Procedure shall be carried out by a **Senior Authorised Person** at the **Location** of the work or testing. The new recipient and the re-issuing **Senior Authorised Person** shall both discharge their responsibilities as if the **Safety Document** was being issued for the first time.
- 17.5 The **Senior Authorised Person** issuing the **Permit for Work** shall ensure that the contents of the document and any document issued with it are carefully explained to the recipient and shall satisfy himself that the recipient understands those contents.
- 17.6 The new recipient shall sign Part 3 of the Transfer Record in the presence of the **Senior Authorised Person** who shall then sign the Part 3 inserting the time and date.
- 17.7 The **Senior Authorised Person** shall notify the **Control Person** of the re-issue of a transferred **Safety Document** at the time of re-issue. The **Control Person** shall record the time and date of re-issue and the name of the new recipient.
- 17.8 Energy Networks shall not make use of the **Nominated Supervisor** role for the transfer of **Safety Documents** as described in Part B of the ScottishPower Safety Rules (Electrical and Mechanical) 4<sup>th</sup> Edition.
- 17.9 It is not a requirement that the **Senior Authorised Person** who issued or re-issued a **Safety Document** is involved in the transfer of that **Safety Document**.

- 18. PROCEDURE/COMPLETION – CLEARANCE AND CANCELLATION OF SAFETY DOCUMENTS**
- 18.1** A **Safety Document** shall be cleared by the recipient whose signature appears on the Receipt section of the **Safety Document**. A Transferred **Safety Document** shall be cleared by the last recipient shown in the Transfer Record.
- 18.2** Before clearing a **Safety Document** the recipient shall ensure that:
- All **Persons** working under the **Safety Document** have been withdrawn from and warned not to continue work/testing on the **Plant/Apparatus** listed in Section 1 of the **Safety Document**.
  - All gear, tools, **Drain Earths** and loose material have been removed.
  - Guards and access doors have been replaced.
  - All exceptions have been entered in the Clearance section and, where reasonable practicable, verbally communicated to the **Senior Authorised Person** cancelling the **Safety Document**.
  - If there are no exceptions then 'Nil' or 'No Exceptions' shall be entered
- 18.3** When clearing a **Sanction for Test** the recipient shall state, where appropriate, in the Clearance section all changes to the conditions of isolation and earthing and that test leads and test prods have been removed (PSSI 9, Section 12).
- 18.4** The recipient shall then complete and sign the Clearance section of the **Safety Document**, also entering the date and time of signing.
- 18.5** After signing the Clearance section, the recipient of the **Safety Document** is responsible for returning the **Safety Document** to a **Senior Authorised Person**. He shall also ensure that any items issued with the **Safety Document** are returned or accounted for, e.g. **Key Safe Keys, Circuit Identification** flags, etc.
- 18.6** The **Senior Authorised Person** responsible for the cancellation of the **Safety Document** shall check that all items issued with the **Safety Document** are accounted for and where applicable shall ensure that they are returned to secure storage.
- 18.7** When there are exceptions quoted in the Clearance section the **Senior Authorised Person** cancelling the **Safety Document** shall notify the appropriate **Control Person** of these exceptions. Where the **Senior Authorised Person** is also the *Substation Control Person* for that **Plant** or **Apparatus** he shall, where applicable, record the exceptions in the Substation Log Book.
- 18.8** The **Senior Authorised Person** shall notify the appropriate **Control Person** of the cancellation and of any restrictions on returning the **Plant** or **Apparatus** to service.
- 18.9** The **Senior Authorised Person** shall enter the name of the **Control Person** in the space provided on the **Safety Document** and shall sign the Cancellation section and enter the time and date.
- 18.10** The appropriate **Control Person** shall record the date and time of cancellation of the **Safety Document**.

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19. **OTHER INFORMATION (SECTION 7 PFW & SFT, SECTION 8 LWC)**

The **Senior Authorised Person** issuing a document may use this space to record information not related to **Safety from the System** e.g. phasing details.

20. **RETENTION AND AUDIT OF CANCELLED SAFETY DOCUMENTS**

**Senior Authorised Persons** shall retain the latest 10 of each type of **Safety Documents** they have issued i.e. the 10 latest **Permit for Work**, 10 latest **Sanction for Test** and 10 latest **Limited Work Certificate**. However, each individual business may take the decision to retain **Safety Documents** in a central location. This will allow them to be made available for audit purposes, as described within OPSAF-11-004 (MSP 1.2 Operational Compliance Auditing).

21. **LOSS OF SAFETY DOCUMENT**

The process to be adopted for **Safety Documents, Keys** and associated items where the Safety Rules cannot be applied because one or more of the requirements of Clearance or Cancellation cannot be met can be found in OPSAF-11-016 (MSP 2.5).

**APPENDIX 1 – PERMITTED ABBREVIATIONS FOR USE IN SAFETY DOCUMENTS**

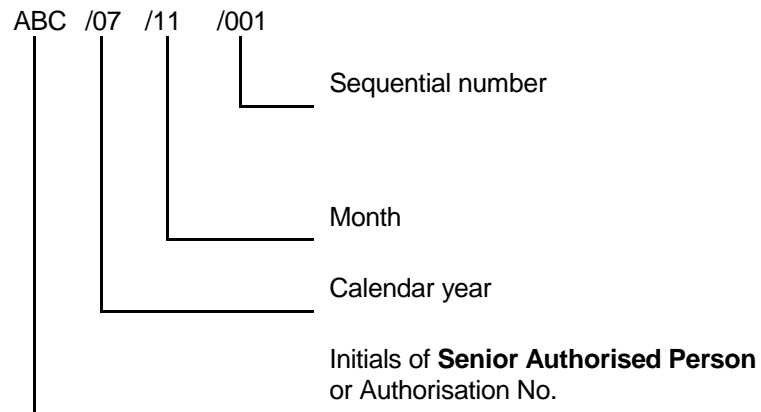
A **Safety Document** is a prime communication instrument and abbreviations should be kept to a minimum. Commonly used abbreviations such as Rd for Road, No. for Number, & for and, etc are permitted together with those listed below.

| DEFINED SAFETY RULES TERMS/<br>SAFETY INSTRUCTIONS |                                      | PROTECTION          |   |
|--|--------------------------------------|---------------------|---|
|  |                                      | AVR                 | Automatic Voltage Regulator             |
| HV   | High Voltage                         | BEF                 | Balanced Earth Fault                    |
| LWC  | Limited Work Certificate             | BUCH.               | Buchholtz                               |
| LWM  | Live Working Manual                  | E/F                 | Earth Fault                             |
| LV   | Low Voltage                          | HS                  | High Set                                |
| MSP  | Management Safety Procedure          | INST                | Instantaneous                           |
| PFW  | Permit for Work                      | I/T                 | Intertrip                               |
| PSSI   | Power Systems Safety Instruction     | IDMT                | Inverse Definite Minimum Time           |
| SFT  | Sanction for Test                    | NPS                 | Negative Phase Sequence                 |
| <b>ELECTRICAL TERMS</b>                            |                                      | NVD                 | Neutral Voltage Displacement            |
|  |                                      | O/C                 | Over-Current                            |
| AC   | Alternating Current                  | REF                 | Restricted Earth Fault                  |
| Al   | Aluminium                            | SK/SKA/SKR          | Solkor/SolkorA/SolkorR                  |
| ACSR   | Aluminium Conductor Steel Reinforced | TY/TYS              | Translay/Translay S                     |
| A  | Amps                                 | WTI                 | Winding Temperature Indicator           |
| B  | Blue when assoc. with phase          |                     |   |
| Cu   | Copper                               | SWGR                | <b>SWITCHGEAR</b>                       |
| DC   | Direct Current                       | ABCB                | Air Blast Circuit Breaker               |
| kV   | Kilo-Volt                            | ABSW                | Air Break Isolating Switch              |
| kVA  | Kilo-Voltamps                        | ABSD                | Air Break Switch Disconnecter           |
| kW   | Kilowatts                            | CB                  | Circuit Breaker                         |
| MVA  | Mega-Voltamps                        | ESW                 | Earth Switch                            |
| MW   | Megawatts                            | FSW                 | Fuse Switch (Oil or Air)                |
| N  | Neutral                              | GCB                 | Gas Circuit Breaker (e.g. SF6)          |
| Ph.  | Phase                                | ISOL                | Isolator                                |
| R  | Red when assoc. with phase           | OCB                 | Oil Circuit Breaker                     |
| V  | Volts                                | OSW                 | Oil Switch (extensible unit)            |
| Y  | Yellow when assoc. with phase        | PMAR                | Pole Mounted Automatic Recloser         |
| <b>GENERAL</b>                                     |                                      | PMAS                | Pole Mounted Automatic Sectionalizer    |
| AUX  | Auxiliary                            | PMFU                | Pole Mounted Fuse Unit                  |
| B/B or BB  | Busbars                              | PMR                 | Pole Mounted Recloser                   |
| CCT  | Circuit                              | PMSW                | Pole Mounted Switch                     |
| FDR  | Feeder                               | RMU                 | Ring Main Unit                          |
| GEN  | Generator                            | RSW                 | Ring Switch of Gas or Oil Insulated RMU |
| GM   | Ground Mounted                       | TOC                 | Take Off Chamber (LV)                   |
| IMMOB  | Immobilise                           | VCB                 | Vacuum Circuit Breaker                  |
| L  | Line                                 | <b>TRANSFORMERS</b> |   |
| LER  | Liquid (Neutral) Earthing Resistor   | CT                  | Current Transformer                     |
| N/O  | Normally Open                        | ET                  | Earthing Transformer                    |
| N/A  | Not Applicable                       | GT1, GT2 etc        | Grid Transformer                        |
| No.  | Number                               | SGT1, 2 etc         | Supergrid Transformer Nos. 1, 2 etc     |
| O/H or OH  | Overhead                             | Transf.             | Transformer (general term)              |
| OHL  | Overhead Line                        | T1, 2 etc           | Transformer No. 1, 2 etc                |
| P  | Pole                                 | VT                  | Voltage Transformer                     |
| PM   | Pole Mounted                         |                     |   |
| PTE  | Pole Transformer Equipment           |                     |   |
| PS   | Power Station                        |                     |   |
| R1, 2 etc  | Reactor No. 1, 2 etc                 |                     |   |
| S/L  | Safety Locked                        |                     |   |
| S/S or SS  | Substation                           |                     |   |
| SW/STN   | Switching Station                    |                     |   |
| U/G or UG  | Underground                          |                     |   |



## APPENDIX 2 – LOCAL NUMBERING OF SAFETY DOCUMENTS

When a **Safety Document** is prepared by a **Senior Authorised Person** without reference to another Control Centre then the **Senior Authorised Person** will number the **Safety Document** as follows:





**SP ENERGY  
NETWORKS**

**PERMIT  
FOR WORK**

|         |
|---------|
| No.     |
| No(s).* |

1. (i) **LOCATION:** .....

.....

(ii) **PLANT/APPARATUS IDENTIFICATION:** .....

.....

(iii) **WORK TO BE DONE:** .....

.....

.....

2. (i) **PRECAUTIONS TAKEN TO ACHIEVE SAFETY FROM THE SYSTEM:** State points at which **Plant/Apparatus** has been **Isolated** and specify position(s) of **Earthing Devices** applied. State actions taken to avoid **Danger** by draining, venting, purging and containment or dissipation of stored energy.

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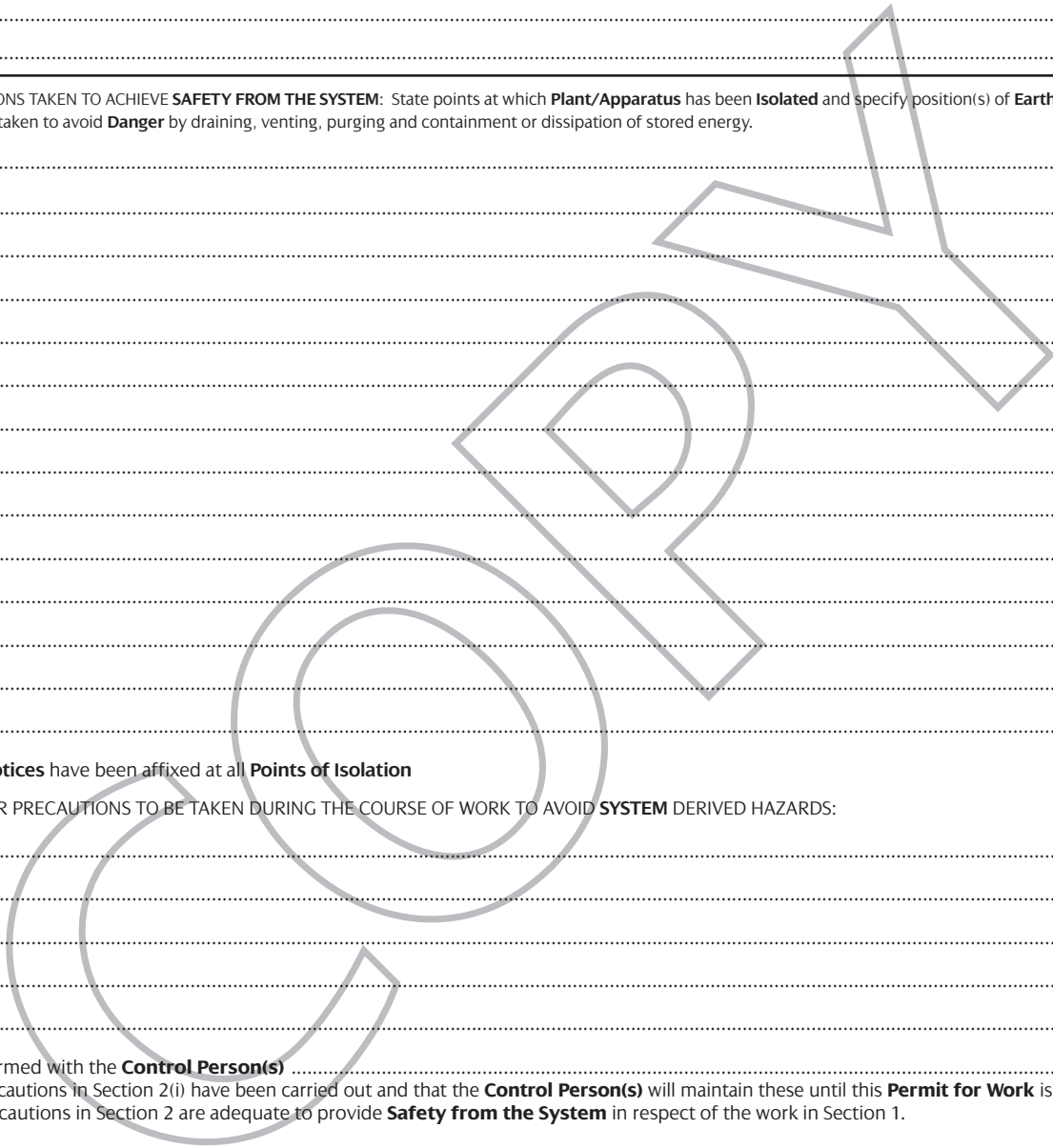
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**Caution Notices** have been affixed at all **Points of Isolation**

(ii) **FURTHER PRECAUTIONS TO BE TAKEN DURING THE COURSE OF WORK TO AVOID SYSTEM DERIVED HAZARDS:**

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I have confirmed with the **Control Person(s)** ..... that the precautions in Section 2(i) have been carried out and that the **Control Person(s)** will maintain these until this **Permit for Work** is cancelled. I certify that the precautions in Section 2 are adequate to provide **Safety from the System** in respect of the work in Section 1.

Signed ..... being a **Senior Authorised Person** Time ..... Date.....

3. **ISSUE:** (i) **Key Safe Key** (Nos.)\* ..... (ii) **Earthing Schedule** (No.)\* ..... (iii) **Portable Drain Earths** (No. off)\* ..... (iv) **Selected Person's Report** (No.)\* ..... (v) **Circuit Identification** Flags (No. off)\* ..... (vi) **Circuit Identification** Wristlets (No. off)\* and Colours/Symbols\* .....

Signed..... Name (Block Letters) ..... Authorisation No..... being the **Senior Authorised Person** responsible for the issue of this **Permit for Work**. Time ..... Date.....

4. **RECEIPT:** I understand and accept my responsibilities under the ScottishPower Safety Rules as recipient of this **Permit for Work** and acknowledge receipt of the items in Section 3.

Signed..... Name (Block Letters) ..... Authorisation No. .... being an **Authorised Person**. Time ..... Date .....



## TRANSFER RECORD

This **Permit for Work** shall only be transferred under the **Personal Supervision** of a **Senior Authorised Person**.

| PART 1   |                   | PART 3   |  |  |  |                   |
|--|-------------------|--|--|--|--|-------------------|
| Authorised Person<br>surrendering<br>Document<br>(Signature) | Time<br>&<br>Date | † Authorised Person receiving<br>Reissued Document |  | Senior Authorised Person<br>Reissuing Document |  | Time<br>&<br>Date |
|  |                   | Signature  | Name (block letters)<br>& Authorisation Number | Signature                                      | Name (block letters)<br>& Authorisation Number |                   |
|  |                   |  |  |  |  |                   |
|  |                   |  |  |  |  |                   |
|  |                   |  |  |  |  |                   |
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|  |                   |  |  |  |  |                   |

† I understand and accept my responsibilities under the ScottishPower Safety Rules as recipient of this **Permit for Work** and acknowledge receipt of the items in Section 3.

5. CLEARANCE: I certify that all persons working under this **Permit for Work** have been withdrawn from, and warned not to work on the **Plant/Apparatus** in Section 1. All gear, tools, **Drain Earths** and loose material have been removed and guards and access doors have been replaced except for:\*\*

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Signed .....  
 being the **Authorised Person** responsible for clearing this **Permit for Work**. Time ..... Date .....

6. CANCELLATION: I certify that all items issued under Section 3 have been accounted for and the **Control Person(s)** .....  
 ..... informed of the cancellation and of any restrictions on returning the **Plant/Apparatus** to service.

Signed ..... Name (Block Letters) ..... Authorisation No. ....  
 being the **Senior Authorised Person** responsible for cancelling this **Permit for Work**. Time ..... Date .....

\*\* Insert Nil or No Exceptions if there are no exceptions.

7. OTHER INFORMATION:

Operational Emergency Contact Numbers:

O.C.C. Scotland ..... 0141 776 2877  
 N.M.C. Manweb ..... 0151 609 4999

Senior Authorised Person's Contact Number:

.....



**SP ENERGY  
NETWORKS**

**SANCTION  
FOR TEST**







## TRANSFER RECORD

This **Sanction for Test** shall only be transferred under the **Personal Supervision** of a **Senior Authorised Person** at the **Location** where testing is being carried out, in the presence of the **Authorised Person** surrendering it and the **Authorised Person** receiving it.

| PART 1  |             | PART 3  |   |   |   |             |
|---|-------------|---|---|---|---|-------------|
| Authorised Person surrendering Document (Signature) | Time & Date | † Authorised Person receiving Reissued Document |   | Senior Authorised Person Reissuing Document |   | Time & Date |
|   |             | Signature                                       | Name (block letters) & Authorisation Number | Signature                                   | Name (block letters) & Authorisation Number |             |
|   |             |   |   |   |   |             |
|   |             |   |   |   |   |             |
|   |             |   |   |   |   |             |
|   |             |   |   |   |   |             |
|   |             |   |   |   |   |             |

† I understand and accept my responsibilities including those of the **Control Person** (with authority limited to changing the conditions in Section 2(ii)) under the ScottishPower Safety Rules as recipient of this **Sanction for Test** and acknowledge receipt of the items in Section 3.

5. CLEARANCE: I certify that all persons working under this **Sanction for Test** have been withdrawn from, and warned not to continue testing on, the **Plant/Apparatus** in Section 1. All gear, tools, **Drain Earths** and loose material have been removed and guards and access doors have been replaced and that the condition of the **Plant/Apparatus** is as received, except for:\*\*

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Signed .....  
 being the **Authorised Person** responsible for clearing this **Sanction for Test**. Time ..... Date .....

6. CANCELLATION: I certify that all items issued under Section 3 have been accounted for and the **Plant/Apparatus** detailed in Section 1 returned to the control of ..... **Control Person(s)** in the condition detailed in Section 5.

Signed ..... Name (Block Letters) ..... Authorisation No. ....  
 being the **Senior Authorised Person** responsible for cancelling this **Sanction for Test**. Time ..... Date .....

\*\* Confirm removal of test connections and test prods if applicable. Confirm any **Primary Earths** detailed in Section 2(ii) that have not been restored. State any other exceptions. Insert Nil or No Exceptions if there are no exceptions.

7. OTHER INFORMATION:

|  |
|--|
| <p><u>Operational Emergency Contact Numbers:</u></p> <p>O.C.C. Scotland ..... 0141 776 2877</p> <p>N.M.C. Manweb ..... 0151 609 4999</p> |
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| <p><u>Senior Authorised Person's Contact Number:</u></p> <p>.....</p> |
|---|



**SP ENERGY  
NETWORKS**

**LIMITED WORK  
CERTIFICATE**



# LIMITED WORK CERTIFICATE

KEY SAFE(S)

|         |
|---------|
| No.     |
| No(s).* |

1. (i) LOCATION: .....
- .....
- (ii) PLANT/APPARATUS IDENTIFICATION: .....
- .....
- (iii) WORK/TESTING TO BE DONE: .....
- .....
- .....

2. CONDITION OF PLANT/APPARATUS: .....

.....

3. (i) LIMITS OF WORK/TESTING OR WORK AREA OR OTHER PRECAUTIONS TAKEN TO ACHIEVE SAFETY FROM THE SYSTEM:
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....

Caution Notices have been affixed at all Points of Isolation

- (ii) FURTHER PRECAUTIONS TO BE TAKEN DURING THE COURSE OF WORK/TESTING TO AVOID SYSTEM DERIVED HAZARDS:
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....

I have confirmed with the **Control Person(s)** ..... that the precautions in Section 3(i) have been carried out and that the **Control Person(s)** will maintain these until this **Limited Work Certificate** is cancelled. I certify that the precautions in Section 3 are adequate to provide **Safety from the System** in respect of the work/testing in Section 1.

Signed ..... being a **Senior Authorised Person** Time ..... Date .....

4. ISSUE: (i) **Key Safe Key** (Nos.)\* ..... (ii) **Safety Keys** (No. off)\* ..... (iii) **Selected Person's Report** (No.)\* .....
- Control Person(s)** agreeing to the issue of this **Limited Work Certificate** .....
- Signed ..... Name (Block Letters) ..... Authorisation No. ....
- being the **Senior Authorised Person** responsible for the issue of this **Limited Work Certificate**. Time ..... Date .....

5. RECEIPT: I understand and accept my responsibilities under the ScottishPower Safety Rules as recipient of this **Limited Work Certificate** and acknowledge receipt of the items in Section 4.
- Signed ..... Name (Block Letters) ..... Authorisation No. ....
- being an **Authorised Person** Time ..... Date .....



## TRANSFER RECORD

This **Limited Work Certificate** shall only be transferred under the **Personal Supervision** of a **Senior Authorised Person**.

| PART 1   |                   | PART 3   |  |  |  |                   |
|--|-------------------|--|--|--|--|-------------------|
| Authorised Person<br>surrendering<br>Document<br>(Signature) | Time<br>&<br>Date | † Authorised Person receiving<br>Reissued Document |  | Senior Authorised Person<br>Reissuing Document |  | Time<br>&<br>Date |
|  |                   | Signature  | Name (block letters)<br>& Authorisation Number | Signature                                      | Name (block letters)<br>& Authorisation Number |                   |
|  |                   |  |  |  |  |                   |
|  |                   |  |  |  |  |                   |
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|  |                   |  |  |  |  |                   |
|  |                   |  |  |  |  |                   |

† I understand and accept my responsibilities under the ScottishPower Safety Rules as recipient of this **Limited Work Certificate** and acknowledge receipt of the items in Section 4.

6. CLEARANCE: I certify that all persons working/testing under this **Limited Work Certificate** have been withdrawn from, and warned not to continue working/testing on, the **Plant/Apparatus** in Section 1. All gear, tools and loose material have been removed and guards and access doors have been replaced except for:\*\*

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Signed .....  
 being the **Authorised Person** responsible for clearing this **Limited Work Certificate**. Time ..... Date .....

7. CANCELLATION: I certify that all items issued under Section 4 have been accounted for and the **Control Person(s)** .....  
 ..... have been informed of the cancellation and of any restrictions on returning the **Plant/Apparatus** to service.

Signed ..... Name (Block Letters) ..... Authorisation No. ....  
 being the **Senior Authorised Person** responsible for cancelling this **Limited Work Certificate**. Time ..... Date .....

\*\* Insert Nil or No Exceptions if there are no exceptions.

\*Insert N/A if Not Applicable

8. OTHER INFORMATION:

|  |
|--|
| <p><u>Operational Emergency Contact Numbers:</u></p> <p>O.C.C. Scotland ..... 0141 776 2877</p> <p>N.M.C. Manweb ..... 0151 609 4999</p> |
|--|

|   |
|---|
| <p><u>Senior Authorised Person's Contact Number:</u></p> <p>.....</p> |
|---|