

1. SCOPE

This Safety Instruction applies the principles established by the ScottishPower Safety Rules (Electrical and Mechanical) and the **Company** Safety Instructions to establish **Safety from the System** for personnel working on or testing transformers.

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
October 1998	1		Initial Issue.
September 2015	2	Phil Currie	General update. 9(iii): New Danger added. 10.1: Last sentence added to fall in line with SREM requiring reporting back to Control Person . 10.8: Requirement to prove not Live if practicable added.

3. ISSUE AUTHORITY

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4. REVIEW

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

5. DISTRIBUTION

This Energy Networks' Safety Instruction is maintained by EN Document Control and is part of the ScottishPower Safety Rules which is published to the SP Energy Networks Internet site.

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7. DEFINITIONS

Terms printed in bold type are as defined in the ScottishPower Safety Rules (Electrical and Mechanical).

8. PLANT AND APPARATUS IDENTIFICATION

HV Apparatus on which work or testing is to be carried out shall be readily identifiable or have fixed to it a means of identification which will remain effective throughout the course of the work or testing.

9. DANGERS

The main **Dangers** to personnel working on transformers are electric shock, burns or falls from height arising from:

- (i) Personnel working on wrongly identified **Apparatus**;
- (ii) The transformer becoming **Live** whilst work is proceeding due to incomplete isolation of all possible sources of supply;
- (iii) Transformer containing stored energy that has not been properly dissipated.

10. WORK OR TESTING ON TRANSFORMERS

- 10.1 When work or testing is to be carried out on the windings of or on the connections to a transformer, the transformer shall be **Isolated** and where practicable the **Isolating Devices** shall be **Locked**. Following **HV Switching** the **Authorised Person** shall report back to the **Control Person**, as soon as is reasonably practicable, the operations carried out and any **Circuit Identification** involved.
- 10.2 When the **Isolating Device** cannot be **Locked**, means shall be used to ensure that the **Point of Isolation** remains secure whilst work is in progress.
- 10.3 Additionally, associated voltage and auxiliary transformers shall be **Isolated** and all **LV** fuses withdrawn to prevent the possibility of any inadvertent backfeed.
- 10.4 Where the **Isolating Device** is removable links or fuses, these shall be retained in safe custody by the **Senior Authorised Person** whilst work is being carried out.
- 10.5 The transformer shall be **Isolated** from all common neutral earthing equipment from which it may become **Live**. This does not require disconnection of solidly earthed neutrals or neutral equipment connected solely to the transformer on which work is to be done.
- 10.6 **Caution Notices** shall be fixed at all **Points of Isolation** including those at **LV**, and neutral earthing equipment.
- 10.7 **Earthing Devices** shall be applied within the **Isolated** zone between the point of work and all **Points of Isolation** excluding **LV** connections but including, where applicable, **Points of Isolation** from common neutral earthing equipment.
- 10.8 Before a **Permit for Work** or **Sanction for Test** is issued, the **Senior Authorised Person** shall, at the point of work, identify the transformer to be worked upon and shall, where reasonably practicable, prove not **Live** at the point of work unless the **HV** connections can be physically traced to a connected earth.
- 10.9 When work is to be carried out on a pole-mounted transformer, then in addition to the above precautions, the requirements of PSSI 4 and PSSI 16 shall be met.
- 10.10 When work is to be carried out on equipment associated with a **Live HV** transformer and there is a need to specify restrictions on the work or work area, a **Limited Work Certificate** shall be issued.