

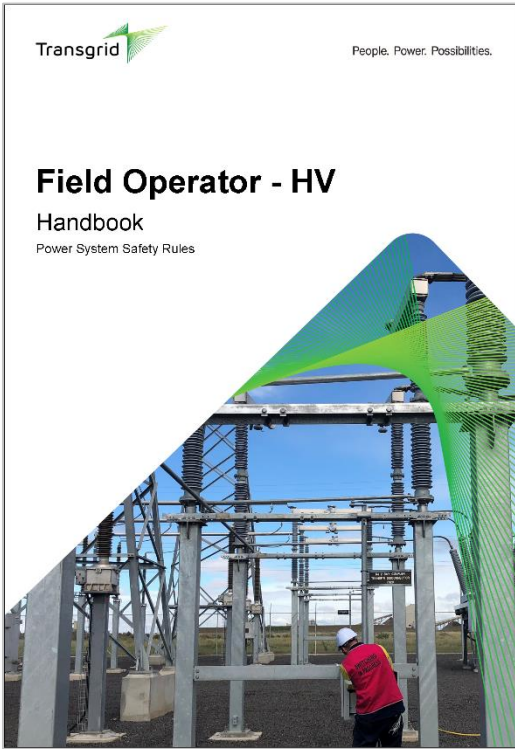


PSSR Notice

Date: 5 June 2024

Updated PSSR Handbook

Audience: This notice is relevant to persons who carry out Field Operations – HV.



The operation of High Voltage (HV) switchgear is required to ensure that safe conditions are established prior to the issue of an Access Authority for work on HV apparatus including Transmission Lines and Transmission Cables.

This [Field Operator - HV](#) handbook is a working interpretation of the Power System Safety Rules to assist a Field Operator in performing their role and to aid in identifying the hazards involved with HV field operation. It's essential reading for anyone performing HV preparation or restoration on Transgrid's HV network.

Significant revisions are highlighted in this version by a vertical red line. In addition:

- Emergency Field Operations added.
- Bus Bar Protection (BBP) link operation added.
- Manipulating contacts with HV operating rod added.
- Site Familiarisation (Type 2) requirements aligned to [Switching Familiarisation Site Categories](#).
- Links to other handbooks revised.

Bus Bar Protection (BBP) links

The operation of current transformer secondary wiring must be checked on site as incorrect application of shorts to link terminals connected to the service termination bus will render the busbar protection for that zone inoperative.

It is critical to identify and operate the correct busbar protection current transformer links only, as 'wrong' voltage may be generated across open-circuited secondary terminals when current flows in a current transformer primary circuit.

Shorts are connected first to neutral and then to the R, W, B phase terminals of the CT secondary circuit. The neutral link, which is earthed via the termination neutral bus, is to be left closed and used on the earth connection as only the R, W, B links are to be opened.

Short & Earth CT Side	Open CT Links	Close CT Links	Remove short

Apply shorts to the CT secondary side of the links commencing at the Neutral link terminal.

Open R, W, B links only. The neutral link is to be left closed and used on the earth connection.

Close R, W, B links only. The neutral link terminals closed.

Remove the short by commencing at the phase terminals, leaving the Neutral link terminal still set.

Application of shorts to BBP links effectively renders the protection non-auto. To reduce the time the busbar protection is inoperative, it is essential during isolation that the links are opened immediately after the shorts are applied, and conversely that the shorts are removed immediately after the links are closed during restoration.

Restoration of apparatus

The authorised person restoring the apparatus after work must:

- Restore the apparatus as per the HVPSR; and
- Arrange for adjustments required to the apparatus to be carried out prior to or en route to recovery of the apparatus.

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(1) When the continuous electrical connection between the conductor required to be confined and the Access Authority earth is provided by a disconnector, a set of links or a similar device, these devices must be closed, locked closed (practicable), and a Do Not Operate Tag affixed.

(2) Operations may be carried by means of a closed circuit breaker or similar device, provided that the device is rendered inoperative in the closed position and a Do Not Operate Tag is affixed.

(3) If the circuit breaker is required to be opened for testing purposes a Warning Tag must be affixed. When not being operated for testing purposes it must remain inoperative.

(4) A High Voltage conductor is regarded as a support where the continuous electrical connection to an Access Authority earth passes through the primary of a current transformer.

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(5) For work on a capacitor voltage transformer, Access Authority earths must be applied on the High Voltage and Low Voltage conductors.

(6) For work on a capacitor bank, HV Access Authority earths must be applied in accordance with approved procedures for the type of capacitor bank.

Star connected layout	H-Type layout

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PSSR Handbooks, forms and other documentation are readily accessed at <https://www.transgrid.com.au/safety/workplace-safety/power-system-safety-rules>