



Technical Bulletin

TB 0177A - Load Break Switch Earthing Requirements

Purpose

The purpose of this technical bulletin (TB) is to detail the earthing requirements for Load Break Switches (LBS). References made to LBS in this TB are applicable to both automatic and manual LBS.

Change

TB0177 (superseded) was released on the 29th of January 2015 to change LBS earthing requirements in order to address the high cost of LBS earthing in high soil resistivity locations.

TB0177A replaces TB0177 with the removal of the Earth Continuity Link (ECL) or Under Slung Link (USL) and supersedes section 5.3.5.2 of EDI0006 and section 5.5.8 of EDI100.

Action (New Installations)

All new LBS installations must be installed with a fully designed permanent earthing system in accordance with EDI100 and EDI001. Earthing via ECL/USL will no longer be used.

Concrete poles must be used if any of the following conditions apply:

- Located in a remote bushfire prone area (see 'remote' definition in EDI001 clause 5.2.3.3)
- Located in a frequented or special bushfire prone area and a compliant earthing design can be achieved with a conductive pole. If a compliant earthing design cannot be achieved with a conductive pole, a wood pole can be used.

If a reasonably practical 'low risk' outcome cannot be achieved due to prohibitive costs, then the LBS earthing design must target a risk that is 'As Low As Reasonably Practicable' (ALARP) in accordance with EDI 001. A dispensation must also be requested which must include a cost risk benefit assessment supporting the ALARP LBS earthing design.

Action (Existing LBS)

For existing LBS the following apply:

- Fully designed LBS earthing are to remain earthed, no work is required on these under this TB.
- Existing LBS installed under TB0177 with an ECL/USL must be closed when site is visited for switching in accordance with WCB2118. The link must then be left in the closed position when switching is complete. This is to avoid operators having to close the ECL/USL again using special switching arrangements. Links that have not been operated yet can remain open, as it will not pose an earthing risk to the public. The ECL must be removed and earthing reviewed only if the LBS is modified or replaced. A special program is not required for retrospective remediation.

Timing

All new LBS earthing designs approved from the date of the release of this TB must comply with these requirements. The updated drawing 348255 will be issued following the release of this TB.

Impacted Documents

The contents of this TB supersede the LBS earthing requirements of the following documents, which will be updated accordingly in the next review:

- EDI100 – Distribution earthing design, construction and test
- EDI0006 – Earthing construction standard
- WCB2118 – Switching protocol for load break switch installations incorporating the use of an earth continuity link