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COPPER PTO INSTALLATIONS AT HOT SITES

PURPOSE AND SCOPE

TGN(E) 207 provides guidance for the safe installation of telecommunications services delivered by PTOs via copper infrastructure to new substation sites. The guidance is required in order to provide electrical safety to National Grid and PTO staff under rise of earth potential conditions at hot sites.

This SCT describes the checks that should be conducted to verify that the guidance in TGN(E) 207 has been followed by PTO and National Grid Staff. Although TGN(E) 207 applies to new substation sites, the principles in the TGN are applicable to installations at existing sites and this SCT may also be used for such installations but it may not be possible to meet all the criteria as the provision of a defined infrastructure may not be practical. In such cases, relaxations shall be agreed by Hot Site trained staff.

PART 1 – PROCEDURAL

1 TRAINING

Only Hot Site trained staff are permitted to install or work on copper PTO infrastructure at substation sites. National Grid has organised a course to train staff in Hot Site communications practices - course code GS083C.

2 INSTALLATION PRACTICE

The correct installation practice is described in TGN(E) 207. Both PTO and National Grid staff must receive training in Hot Site installation practice and the requirements of TGN(E) 207 before commencing work. The check list given in Appendix A shall be jointly completed by PTO and National Grid staff.

3 TESTING

Loop-back testing of the outlet cable to the exchange before the LIU i.e. on the hot side, shall only be performed by using a BT Link type U34A inserted into the appropriate isolating link position. The U34A link provides the required isolation for the loop-back test any other method of achieving the loop-back is unsafe.

Line testing from the isolated side of the LIU can be performed from the line jack NTE 5E.

- a) By connecting into the face plate of the NTE 5E, testing of the line can be performed back to the exchange, however internal cold wiring within the substation will also be connected.
- b) By removing the face plate of the NTE 5E the internal cold wiring within the substation after the NTE 5E will be isolated. Line testing back to the exchange can be performed using the internal jack on the NTE 5E.

4 FORMS AND RECORDS

The check list provided in Appendix A shall be completed by the PTO and National Grid staff. The completed check list shall be stored on site for future reference