

National Grid
Commissioning
Handbook
Procedure 30

**Commissioning Application of TP107 to
Non Mainstream Supplier Protections.**

- **DRS-BB**
- **Trench CPR04**

CH 30
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1 PURPOSE

The purpose of this procedure is to outline the recommended practice for applying settings and configuration files to new multi-function relay protections on the National Grid system. This covers protection installed on new sites and also asset replacement protection.

This document should be used in conjunction with Transmission Procedure TP107, Protection & Control Relay Settings, and Commissioning Handbook 21, Management of Numerical Protection Schemes.

The software version used to undertake the comparison should be dictated by the relay setting sheet.

2 GENERAL OVERVIEW

TP107 requires that electronic comparisons are carried out at identified stages of the relay settings process, in order to satisfy the requirements of quality assurance and multi-function relay management, as detailed in Commissioning Handbook 21.

This Commissioning Handbook details the process by which the electronic comparison process is carried out. It also specifies fixed and variable settings, to facilitate further checks if differences are identified as a result of the comparison process.

3 PROCESS REQUIREMENTS

3.1 Factory Alignment of Calculations, Settings & Relay Files

The process as defined in TP107 Appendix B3 and CH21 shall apply.

3.2 Factory Acceptance Test

The process as defined in TP107 Appendix B3 and CH21 shall apply.

3.3 Site Validation

Once the hardware arrives at site and is powered up & ready for Stage 1 commissioning to commence or an existing relay has been uploaded with a new setting file, an electronic comparison shall be carried out between the file in the relay and the file that was issued via MARS in accordance with TP107.

The stage 1 commissioning documentation must comprise:

- A set of MARS setting sheets for all new equipment, which should be checked and confirmed against the Site Commissioning Test (SCT) sheet.
- A set of CH21 sheets, which should be supplemented with comparison results between configurations at identified stages, as per the requirements of TP107.

On completion of Stage 1 commissioning tests, a further comparison should be carried out by the National Grid & Supplier Commissioning Engineers, to ensure no modified settings (e.g. for testing purposes) have been erroneously left on the relay.