

**Redlined Code of Practice Four text for CP1505 'Allowing 'off site' Commissioning of current transformers preinstalled in cut outs or switchgear at manufacture for use in Low Voltage (LV) installations'**

This CP proposes changes to Sections 5.3, 5.5.1, 5.5.2 and 6.2. We have redlined these changes against Version 10.0.

**There is no impact on any other part of this document for this CP.**

*Amend Section 5.3.1 as follows:*

### 5.3.1 Responsibility for Calibrations and maintenance of Records.

Where measurement transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of 5.3 are performed up to and including the Testing Facilities. In addition that Party shall prepare, and make available to the appointed MOA, complete and accurate calibration records in relation to these obligations. Where measurement transformers are not owned by a BSC Party the Registrant, via its appointed MOA, shall be responsible for these requirements.

The BSCCo (or any delegated 3rd party) shall have the right to audit any off site Commissioning agent performing Commissioning off site to ensure that the Commissioning is undertaken in line with CoP4 requirements. Any such audit will be facilitated by the BSC Party responsible for ensuring the requirements of Section 5.5 are performed on its Metering Equipment up to and including the Testing Facilities. Any non-compliance found shall be the responsibility of the relevant BSC Party responsible for the Commissioning.

*Amend Section 5.5.1 as follows:*

### 5.5.1 Instruments for Commissioning

The MOA<sup>7</sup> shall establish and maintain a process to periodically calibrate the instruments used for Commissioning (from which measurements are recorded). Each instrument shall be Traceable. The MOA<sup>7</sup> shall maintain records to show the instruments used for Commissioning, when an instrument was last calibrated, and when it is next due for Calibration.

The period of Calibration shall be determined by the MOA<sup>7</sup>, depending on the type of instrument used and manufacturer's recommendations, but in any event not exceed 2 years. If an instrument is found to be outside of the required accuracy limits, the MOA<sup>7</sup> shall consider what impact that inaccuracy has had on previous commissioning tests, and if necessary revisit those Metering Systems, and keep a record of his determination.

*Amend Section 5.5.2 as follows:*

### 5.5.2 Commissioning Tests

Commissioning tests on site shall be performed to confirm and record where appropriate the following:

- That the current transformers are of the correct ratio and polarity and correctly located to record the required power flow;

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<sup>7</sup> or relevant network operator, as appropriate. Where current transformers are Commissioned off site in line with paragraph 3 (Section 5.5.2) then the BSC Party responsible for the Commissioning of measurement transformers shall ensure a traceable process exists and is followed for the periodic calibration of instruments used for Commissioning.

- The voltage transformers are the correct ratio and polarity and correctly located to record the required power flow;
- The relationships between voltages and currents are correct and that phase rotation is standard at the Meter terminals;
- The burdens on the measurement transformers are within the correct limits;
- The Meters are set to the same current transformer and voltage transformer ratios as the installed measurement transformers;
- The Meters have the correct Compensation for errors in the measurement transformers/connections and losses in power transformers where appropriate;
- The output of the Metering System correctly records the energy in the primary system at the Defined Metering Point;
- The Metering Equipment detects phase failure and operates the required alarms.

Where individual items of Metering Equipment are to be replaced then only those items are required to be Commissioned. For clarification, Metering Systems in their entirety need not be re-Commissioned when items are replaced within that system.

Current transformers<sup>8</sup> integrated in low voltage cut outs or switchgear may be partially Commissioned off site, provided there is no further alteration to the Metering Equipment following Commissioning and provided that this is done in accordance with Section 5.5.2 of CoP4 (other than the requirement that the Commissioning be performed on site). On site Commissioning tests will still be required on site by the MOA to ensure all of the obligations under Section 5.5.2 are met<sup>9</sup>. Tamper evident seals shall be used following off site Commissioning and these shall be replaced on site by seals as specified in Section 5.5.3 once Commissioning is complete. For the avoidance of doubt where the current transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of Section 5.5.2, are performed on its Metering Equipment up to and including the Testing Facilities. Where the current transformers are not owned by a BSC Party then the Registrant of the Metering System, via its appointed MOA, shall be responsible for ensuring these requirements are met.

*Amend Section 5.5.4 as follows:*

<sup>8</sup> Where current transformers are of a multi-ratio design, then the responsible Commissioning party will be required to complete elements of Commissioning on-site (and post installation) to ensure the correct ratio has been selected.

<sup>9</sup> For the avoidance of doubt, where current transformers are Commissioned off site then the MOA will not be required to complete additional tests outside of the scope of Section 5.5.2 and 6.2 of CoP4. The MOA testing should not be altered by off site Commissioning of current transformers integrated in low voltage cut-outs or switchgear.

#### 5.5.4 Records

The MOA shall provide such evidence, as BSCCo may require, to confirm that, following its Commissioning, Metering Equipment shall meet the requirements of the Code and relevant Codes of Practice. This evidence must be Traceable and dated.

If Metering Equipment is changed, then its Commissioning record should be retained by the MOA and provided to BSCCo if required.

The evidence provided shall contain, as a minimum and where applicable, the following information:

- Site name
- Site address
- Metering System Identifier (MSID/MPAN)
- Meter Operator Agent organisation name
- Date of Commissioning
- Name of person responsible for undertaking Commissioning (and organisation)
- Reason for Commissioning
- Code of Practice applicable (including version)
- Metering Dispensations applicable
- Meter details (including any Certificate identity)
- Current transformers details (including any Certificate identity)
- Voltage transformers details (including any Certificate identity)
- Circuit name (where more than one)
- Results of inspections, tests and observations.
- Where Commissioning has taken place off site, records shall include the identity of the off site Commissioning agent along with the address at which the testing was performed. For the avoidance of doubt, where BSCCo intends to audit an off site Commissioning agent completing off site Commissioning, BSCCo will contact the Party responsible for ensuring the requirements of CoP4 Section 5.5 have been met. It is the responsibility of said Party to organise the site audit.

*Amend Section 6.2 as follows:*

#### 6.2 Commissioning Tests

Commissioning tests on site shall be performed to confirm and record where appropriate the following:

- That the current transformers are of the correct ratio and polarity and correctly located to record the required power flow;
- For multiphase installations the relationships between voltages and currents are correct and that phase rotation is standard at the Meter terminals;
- The burdens on any current transformers are within the correct limits;
- The Meters are set to the same current transformer ratios as the installed current transformers;

- The output of the Metering System correctly records the energy in the primary system at the Defined Metering Point.

Where individual items of Metering Equipment are to be replaced then only those items are required to be Commissioned. For clarification, Metering Systems in their entirety need not be re-Commissioned when items are replaced within that system.

Current transformers integrated in low voltage cut outs or switchgear may be partially Commissioned off site, provided there is no further alteration to the Metering Equipment following Commissioning and provided that this is done in accordance with Section 6.2 of CoP4 (other than the requirement that the Commissioning be performed on site). On site Commissioning tests will still be required on site by the MOA to ensure all of the obligations under Section 6.2 are met<sup>9</sup>. Tamper evident seals shall be used following off site Commissioning and these shall be replaced on site by seals as specified in Section 5.5.3 once Commissioning is complete. For the avoidance of doubt where the current transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of Section 6.2, are performed on its Metering Equipment up to and including the Testing Facilities. Where the current transformers are not owned by a BSC Party then the Registrant of the Metering System, via its appointed MOA, shall be responsible for ensuring these requirements are met.