Change Proposal – BSCP40/02	CP No: 1211 *Version No:* 1.0 *(mandatory by BSCCo)*

Title *(mandatory by originator)*
Changes to Codes of Practice 3, 5, 8 and 9 fusing requirements

Description of Problem/Issue *(mandatory by originator)*

Codes of Practice 3, 5, 8 and 9 apply to Metering Systems that are predominantly Low Voltage (LV) Metering Systems. They specify the requirements for Metering System including fusing arrangements but do not specify the type of fuses to be used for LV systems where current transformer operated Meters are used. Where inappropriate fuses are used there is potential for very high levels of fault current at the Meter giving rise to potential hazards.
In the event that an electrical fault develops at the Metering System where inadequate protection is provided, persons within close proximity of the Metering System may be at risk from the very high levels of fault current.

Proposed Solution ***(****mandatory by originator)*

Codes of Practice (CoP) 3, 5, 8 and 9 should be amended to require BS 88 type fuses for LV current transformer operated Metering Systems. Such fuses are designed to withstand the very high levels of fault current available from the distribution systems.

The red line changes are provided in the attachments to this CP1211 but are also shown as extracts below.

CoP3 Section 5.2 para 4 'Fusing and Testing Facilities'

Where Current Transformers are used on low voltage installations, the voltage supply to the Metering Equipment shall be fused with fuse links conforming to BS 88-6 as close as practicable to the point of that supply with a set of isolating links, suitably identified, provided locally to the Metering Equipment. In the event that fuses are to be used as isolation links then these fuse links shall also conform to BS 88-6. If that point of supply is close to the Metering Equipment, then the isolating links may be omitted.

CoP5 Section 5.2 para 4 'Fusing and Testing Facilities'

Where Current Transformers are used on low voltage installations, the voltage supply to the Metering Equipment shall be fused with fuse links conforming to BS 88-6 as close as practicable to the point of that supply with a set of isolating links, suitably identified, provided locally to the Metering Equipment. In the event that fuses are to be used as isolation links then these fuse links shall also conform to BS 88-6. If that point of supply is close to the Metering Equipment, then the isolating links may be omitted.

CoP8 Section 5.2.5 'Voltage supply for Current Transformer operated Meters'

A separately fused voltage supply fitted with fuse links conforming to BS 88-6 shall be provided between the cut-out and the Current Transformer operated Meter. No burden other than Metering Equipment shall be connected to the fused side of the voltage supply. The neutral conductor of the voltage supply to the Meter shall not be fused.

CoP9 Section 5.2.6 'Voltage supply for Current Transformer operated Meters'

A separately fused voltage supply fitted with fuse links conforming to BS 88-6 shall be provided between the cut-out and the Current Transformer operated Meter. Where the Meters for M1 and M2 are separate, then only a single secondary fuse (2 or 6 amp) shall be fitted per phase to serve both Meters. No burden other than Metering Equipment shall be connected to the fused side of the voltage supply. The neutral conductor of the voltage supply to the Meter shall not be fused.

CoPs 3, 5, 8 and 9 Section 2 'References'

The addition of…..
BS 88-6 Cartridge fuses for voltages up to and including 1000 V a.c. and 1500 V d.c. Specification of supplementary requirements for fuses of compact dimensions for use in 240/415 V a.c. industrial and commercial electrical installations.

Justification for Change *(mandatory by originator)*

This change will prevent the use of inappropriate fuses for current transformer Metering System going forward. It will reduce the risks to persons in close proximity to such Metering Systems from the potential hazards associated with very high levels of fault current at the Metering System.

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code? *(mandatory by originator)*

Section L METERING

Estimated Implementation Costs *(mandatory by BSCCo)*

Estimated ELEXON Implementation costs for CP1211 is £440 (2 ELEXON Man Days)

Configurable Items Affected by Proposed Solution(s) *(mandatory by originator)*

Codes of Practice 3, 5, 8 and 9.

Impact on Core Industry Documents or System Operator-Transmission Owner Code *(mandatory by originator)*

None

Related Changes and/or Projects *(mandatory by BSCCo)*

None

Requested Implementation Date ***(mandatory by originator)***

February 2008 BSC Systems Release

Reason:

Next opportune release

Version History ***(mandatory by BSCCo)***

N/A

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Attachments: Y
CP1211 Attachment A BSC CoP3 Issue5 v5.0 Redlined (41 Pages)
CP1211 Attachment B BSC CoP5 Issue6 v4.0 Redlined (40 Pages)
CP1211 Attachment C BSC CoP8 Issue1 v4.0 Redlined (25 Pages)
CP1211 Attachment D BSC CoP9 Issue1 v3.0 Redlined (33 Pages)