



Study Committee No : B1
WORKING BODY FORM

Group No : WG B1.28

Name of Convener : Nigel Hampton (US)

TITLE of the Working Group :

On-site Partial Discharge Assessment of HV and EHV cable systems

Background:

Cable Systems undergo various steps in testing, specifically tests after installation. To provide additional information after installation, on-site pd measurements may be undertaken. Such measurements under field conditions may be complicated to perform, and complex to analyse, but can provide valuable data on the quality of the cable installation. There is a significant interest from the owners of using these techniques both for verifying the sound installation, but also for the purpose of diagnostic testing during the life of the cable system. The work of this WG, that has the strong support of IEC TC 20, will fill the need of widely accepted guidelines.

Terms of Reference:

The work should be limited to HV and EHV extruded AC cables, but addressing both commissioning and diagnostic testing,

The WG shall:

- collect experience with PD testing, with respect to methods/equipment and results
- evaluate the added value of the PD testing at site for commissioning and diagnostic testing
- evaluate the applied technology, taking into account what previous CIGRE and ICC WG's have done so far
- recommend the protocol, to validate the on-site measurement results (calibration, sensitivity assessment)
- recommend guidelines for PD test procedures at site (voltage level, measuring time, measuring conditions)
- identify widely acceptable requirements for commissioning and diagnostic testing

Deliverables:

- An Executive Summary article for Electra
- A full report to be published as a Technical Brochure
- A Tutorial

Created: **2008** The full report shall be made available for final review at the B1 annual meeting in 2011.

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WG members from: AU, BE, BR, CA, HR, DK, FR, DE, IT, JP, KR, NL, PO, ES, SE, CH, UK, US.

Other stakeholding SC's: D1

Approval by TC Chairman : Klaus Fröhlich

Date : 03/11/2008