



**Study Committee No : B1**

**WORKING BODY FORM**

**Group No : WG B1.24**

**Name of Convener : Marco MARELLI (IT)**

**TITLE of the Group : Test procedures for HV transition joints**

**Background:**

Extruded cable is increasingly being used for transmission and distribution circuits in preference to cables with lapped insulation. It is becoming more common for a length of extruded cable to be introduced into a lapped cable circuit, when the latter is repaired or diverted. International cable specifications are generally written to cover a specific insulation technology e.g. IEC 60840 applies to cables with extruded insulation and their accessories. Applications that involve cables with more than one insulation system are not usually considered. The test regimes differ between lapped paper and extruded polymeric insulation; for example an AC after laying test might be used with extruded cable and a DC test with paper cable.

**Terms of Reference:**

- To review the range of transition joints currently available
- To review the existing international standards and the extent to which they cover the testing of transition joints
- Align voltage levels to those specified in IEC Standards for extruded cable systems
- To propose test regimes for transition joints and their associated cables. Type, routine, sample and after-laying tests should be considered.

**Scope of work :**

The WG should take into account ac cables and accessories for rated voltages above 30 kV up to 500 kV. Transition joints in submarine or DC cable systems are not considered. Priority should be given to jointing paper cables with extruded cables, in particular SCFF cables with XLPE cables. All forms of testing should be considered. Priority shall be given to after-laying and type tests.

**Deliverables:**

The WG should provide recommendations on type, routine, sample tests for transition joints. The WG should provide a recommendation on site testing of transition joints. The WG will also provide an Electra article and a tutorial for presentation at CIGRE conferences and workshops.

Created: **2006**, Duration : **3 years**

**Members:** Australia, Belgium, Canada, China, Denmark, France, Germany, India, Ireland, Italy, Japan, Korea, The Netherlands, Sweden, United Kingdom, United States

**Approval by TC Chairman : Klaus Fröhlich**

**Date : Nov. 12, 2006**