



**Study Committee No : B1**

**WORKING BODY FORM**

**Group No : WG B1.22**

**Name of Convener : Kieron Leeburn (ZA)**

**TITLE of the Group : "Cable accessories workmanship"**

**Terms of reference**

**Background :**

One of the trends in the cable technology is the reduction of the cable insulation thickness and therefore the growing of electrical stress based on a better knowledge of the insulating material and the extrusion process. As the cables are made under well-defined factory conditions, their quality and reliability are usually assured. Accessories, however, are mounted on site, and even if this job is done by skilled and trained jointers, it is realized in more delicate and undefined conditions than in the factory.

In view of safeguarding the cable system's reliability which utilities rely on, it is important to study the electrical stress limits in the different types of joints, to learn about the safety margins between theoretical and practical strength levels, to examine the necessary skills of jointers and relative Quality Assurance and to study the recent service experience of high stressed cables.

**Objectives :**

- To review the literature on the subject
- To complete the terminology not covered by TB 177 "Accessories for HV cables with extruded insulation"
- To prepare an easy to understand guide that could be useful for non-technical customers aligned to IEC voltage ranges
- To prepare guidelines for jointers training. The objective is to have this document referenced in call for tenders

**Scope :**

- HV Extruded AC >30kV cable systems only (MV and HTS cables are excluded)
- Land cable systems
- Special considerations may be needed for large conductors
- Accessory designs and terminations
- Interface preparation (Different methods)

Created: 2005, Duration : 3 years, Extension: 1year

**Deliverables and time schedule :**

A standard 6 page Electra article, a final report (that will be published as a technical brochure) to be submitted and discussed at 2008 SC B1 meeting and a tutorial in collaboration with the TAG.

**Countries represented:** Australia, Belgium, Canada, Denmark, France, Germany, Ireland, Israel, Italy, Japan, Korea, The Netherlands, Romania, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States.

Approval by TC Chairman : Aldo Bolza

Date : December 30, 2005

A : revised in October 2006: Delete submarine cables. Change Type of joints by Accessory designs  
B : Extension 1 year