Study Committee Representatives Annual Meeting
October 4, 2009
Toronto

SC B2 “Overhead Lines”
2009 Activity Report

Zibby Kieloch (Manitoba Hydro)

1. Study Committee Status

- Study Committee B2 has a new structure now.
- All of the old Working Groups have been disbanded following delivery of publications.
- There are 22 new Working Groups with narrow focus. Canada has representation on all but one WG.

2. Study Committee Structure – Technical Groups

AG B2.04 Electrical Performance Advisory Group

- **TF B2.20** "Management of risks due to load-flow capacity increases in transmission overhead lines"
- **WG B2.26** "A guide to evaluating and accepting new types of overhead conductor including those running at high temperature"
- **WG B2.36** "Guide for application of direct real time monitoring systems on overhead transmission lines"
- **WG B2.38** "Evaluation of high surge impedance load solutions for increased natural capacity for OHL"

2. Study Committee Structure – Technical Groups

AG B2.04 Electrical Performance Advisory Group (cont'd)

- **JWG B2/C1.19** "Increasing capacity of overhead lines - needs and solutions"

2. Study Committee Structure – Technical Groups

AG B2.05 Towers, Foundations and Insulators Advisory Group

- **WG B2.08** "Transmission Line Structures" (soon to be disbanded and replaced by 2 new Working Groups)
- **WG B2.21** "Arc protection and diagnosis for composite string insulators "
- **WG B2.23** "Geotechnical and structural design of the foundations of HV & UHV Lines "

2. Study Committee Structure – Technical Groups

AG B2.06 Mechanical Behaviour Of Conductors and Fittings Advisory Group

- **WG B2.25** "Preparatory studies on specifications for revision of IEC testing of self damping and conductor fatigue characteristics (new IEC Spec.), for high temperature fittings (IEC 61284), for tests on spacers (IEC 61854) and on dampers (IEC 61897)"
- **WG B2.30** "Engineering guidelines relating to fatigue endurance capability of conductor/clamp systems"
- **WG B2.31** "Modeling of aeolian vibration of single conductors"

2. Study Committee Structure – Technical Groups

AG B2.06 Mechanical Behaviour Of Conductors and Fittings Advisory Group (cont'd)

- **WG B2.32** "Assessing the performance of aged fittings: testing, acceptance criteria & recommendations for HV & UHV lines"
- **WG B2.33** "Guidelines for cable cart/trolley (cycling) safety on old conductors (earthwires) equipped with aircraft warning markers (and other fittings)"

2. Study Committee Structure – Technical Groups

AG B2.07 Asset Management, Reliability and Availability Advisory Group

- **WG B2.16** "Meteorology for overhead lines" (soon to be disbanded and replaced by a new Working Group)
- **WG B2.22** "Mechanical security of overhead lines with effective failure containment measures: design loading cases and strategies for effective anti-cascading supports"
- **JWG B2/B3.27** "Live-Line Maintenance - A Management Perspective"

2. Study Committee Structure – Technical Groups

AG B2.07 Asset Management, Reliability and Availability Advisory Group (cont'd)

- **WG B2.29** "Anti- and de-icing systems for HV and UHV overhead lines"
- **WG B2.34** "The impact of line configurations on electric and magnetic fields, radio interference and audible noise for 800 and 1000 kV OHL"
- **WG B2.39** "Validation of design guidelines implemented for High Intensity Winds (HIW)"

2. Study Committee Structure – Technical Groups

AG B2.07 Asset Management, Reliability and Availability Advisory Group (cont'd)

- **WG B2.40** "Calculations of the electrical distances between live parts and obstacles for OHL: Preparatory studies for revision of IEC standards (IEC 61865, IEC 60826, EN 50341)"

3. Meetings and Events

- June 3-4, 2009
  Sarajevo, Bosnia and Herzegovina
  "Power Frequency Electromagnetic Fields - ELF/EMF"
  International Colloquium (in cooperation with CIGRE SC's B1, B2, B3, B4, C3 & C4)

- October 19-22, 2009
  Seoul, South Korea
  SC B2 Annual Meeting

- October 23, 2009
  Gyeongju, South Korea
  765 kV Technology Colloquium

4. Recent Publications

• ELT_244_3 & TB 384
"Comparison of general industry practices for lattice tower design and detailing"

• ELT_244_4 & TB 385
"Management of Risks due to Load-Flow Increases in Transmission OHL"

• ELT_245_3 & TB 387
"Influence of the hyperstatic modeling on the behavior of transmission line lattice structures"