

CIGRE Study Committee B2 Technical Advisory Group 4 Liaison Report

Dale Douglass
July 2010



Study Committee B2

- *Studies and evaluates problems and phenomena that concern overhead transmission lines – electrical (TAG₄), mechanical (TAG₆), Asset management (TAG₇).*
- *IEEE Contacts:*
 - *TAG₇ - Keith Lindsay*
 - *TAG₆ – Dave Havard*
 - *TAG₄ – Dale Douglass*



Technical Advisory Group 4 Membership

- About 20 members and 10 corresponding members.
- IEEE members of AG₄ are:
 - Dale Douglass, Chair
 - Tap Seppa, Herve Deve, WG Acceptance Testing HTLS
 - Len Custer, WG High Temperature Effects
 - Jerry Reding, Mark Lancaster



Existing Technical Brochures on Electrical Effects of Overhead Lines

- 216, Electra Article and Tutorial on “Joints On Transmission Line Conductors: Field Testing and Replacement Criteria” - Published August, 2004
- 244, Electra article, and Tutorial on a “Conductors for the Uprating of Existing Overhead Lines” - Published August, 2004
- 299, Electra article, and Tutorial on a “Guide to Selection of Weather Conditions for Overhead Line Ratings” - Published August, 2006
- 324, Electra article and Tutorial on a “Guide to Sag-tension Calculations” - Published June, 2007
- 345, Electra article, and Tutorial on “Calculation of AC Resistance for Bare Overhead Conductors” - Published January, 2008
- XXX, Electra Article & Tutorial on “A Guide to Evaluation & Acceptance of High Temp Conductors” – August, 2010



Meetings of TAG B2.04

- Met in Iraklion, Greece – April, 2009
- Met in Seoul, Korea – October, 2009
- Met in Stockholm – May 2010
- Meet next in Paris – August 2010
- TAG₄-IEEE TP&C in LV – Jan 2011



TAG B2.04 Stockholm Presentations

- Presentations (Available to TP&C members)
 - Tap Seppa – Field Testing at ORNL
 - Rolf Kleveborn – Splice field evaluations
 - Steffen Kupke – Temp Monitoring of German Lines
 - Herve Deve – ACCR installation
 - Thales Papazoglou – Loss minimization
 - Carlos Alexandre Meireles – Real-time monitoring



Past WG assoc with TAG 4

- ~~TF B2.20 - Management of risks due to load-flow capacity increases in Transmission Overhead Lines J. PESTOURIE (FR) 2009~~ Complete
- ~~WG B2.26 - A Guide to Eval. & accept. new Types of Overhead Conductor incl. those running at high temperature T. SEPPA 2009~~ Final Edits Complete
- WG B2.36 Guide for Application of Direct real time monitoring systems on Overhead Transmission lines. R. STEPHEN Draft report complete 12/09 – Completion date 12/10
- WG B2.38 Evaluation of HSIL Solutions for Increased Natural Capacity of OHTL OSWALDO REGIS (BRA) Draft report complete 12/09 – completion date 12/10



New WGs approved in 4/2011

- WG 41 – Conversion of AC Lines to DC – Jan Lundquist/Sweden
- WG 42 – Impact of High Temperature ($>100^{\circ}\text{C}$) operation on conventional bare conductors, connectors, and hardware (coord with IEEE 1283) – Len Custer/US
- WG 43 – Refinement & Extension of Thermal Rating Calculations to High Current densities & real-time weather/load data (update TB207) – Javier Inglesias/Spain.



Joint Meeting of TAG B2.04 with TP&C in Las Vegas

- TP&C will meet Monday-Weds
- CIGRE TAG₄ and TAG₇ meet Thursday-Friday
- Joint activities on Wednesday Afternoon

