

# **Insulation Life SC TF on High-Temperature Liquid-Immersed Transformers**

## **AGENDA**

First Meeting - Fall 2008  
Monday, October 6, 2008  
Corgo Meeting Room, 4:15 pm to 5:30 pm  
Porto Palácio Congress Hotel & Spa; Porto, Portugal

### **Administrative**

- Introductions and attendance sheets
- IEEE patent policy
- Policy is posted on website and all should have read
- Anyone know of patents concerning this doc
- Record response in minutes

### **Volunteers needed**

- Secretary
- TF members

### **PAR request**

- Title: Draft Trial-Use Standard for the design and application of liquid-immersed power transformers using high-temperature insulation materials
- Scope: This trial use standard applies to all liquid-immersed distribution, power and regulating transformers that are designed to operate at temperatures that exceed the thermal limits of C57.12.00.
- Purpose: This trial use standard is intended to provide guidance toward standardizing the design and application of liquid-immersed transformers that incorporate high-temperature insulation systems or systems that use a combination of high-temperature and conventional insulation.

### **IEEE Documentation Supporting Higher Hot Spot Temperatures in Mineral Oil**

- IEEE Working Group Report, "Background Information on High-Temperature Insulation for Liquid-Immersed Power Transformers"
- IEEE Std 1276-1997 Guide for the Application of High-Temperature Insulation Materials in Liquid-Immersed Power Transformers
  - Good guide but limited to mineral oil
  - Does not address distribution transformers

## **IEC Documentation Supporting Higher Hot Spot Temperatures in Mineral Oil**

- IEC/TS 60076-14-2004 Design and application of liquid-immersed power transformers using high-temperature insulation materials
- IEC/TS 60076-14 Revision
  - In progress now
  - Loading guidance has been added
  - Completion expected by end of this year

## **IEC 60076-14 Proposes Three High-Temperature Insulation Systems**

- Homogeneous
  - High-temperature solid insulation
  - High-temperature insulating liquid
- Hybrid
  - High-temperature solid insulation only when contacting conductor
  - Conventional insulating liquid
- Mixed
  - High-temperature insulation only at localized hot regions
  - Conventional insulating liquid

## **First Draft of New Document**

- Modified copy of IEC 60076-14 currently in draft status
  - After Part 14 is published and sections are stabilized in new document  
Request copyright approval from IEC for copied portions
  - Review Document
  - Watch for IEC/ISO references and replace where necessary
  - Target for comments is December 31
  - Send comments to be added to draft 2

## **Intermediate Meeting**

- Difficult to Progress with Only Spring and Fall Meetings - mostly summary
- Suggest an Intermediate Meeting
- Review whole document page by page
- Atlanta airport hotel in late January
- 1 or 1-1/2 days
- Who Would Attend?

## **Adjournment**

- Did everyone sign the roster?
- Motion to adjourn?