

Minutes of the Meeting for the Materials Subcommittee of the Electrical Machinery Committee

Date: April 12, 2005

Location: Doble Conference, Copley Place Westin Hotel, Boston, Massachusetts

A meeting of the Materials Subcommittee was held from 1:30 p.m. to 3:30 p.m.

1. Meeting call to order

The meeting was called to order by the Chair Doug Conley. Fifteen members attended the meeting.

2. Minutes of the Last Meeting

The Minutes of the September 22, 2004 meeting in Indianapolis, Indiana were circulated. A motion for approval was offered by Dr. Greg Stone and seconded by Stefano Bomben.

3. Chair's Comments

With the term of the current officers expiring at the close of the next meeting, the Chair appointed a nominating committee to review the committee roster and recommend a new slate of officers for the next two years. The nominating committee consists of Dr. Greg Stone, James Timperley and Doug Conley.

4. Standards Coordinator Report and Discussion

- *43-2000 IEEE Recommended Practice for Testing Insulation Resistance of Rotating Machinery*

Andy Brown accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Andy Brown.

Dr. Lori Rux reported that an error exist in the addendum. A corrigendum can be issued to correct this error.

- *95-2002 IEEE Recommended Practice for Insulation Testing of Large AC Rotating Machinery with Direct Voltage*
- *275-1992 (reaff 1998) IEEE Recommended Practice for Thermal Evaluation of Insulation Systems for Alternating-Current Electric Machinery Employing Form-Wound Pre-Insulated Stator Coils for Machines Rated 6,900 V and Below*

Charles Wilson accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Charles Wilson.

- *286-2000 IEEE Recommended Practice for Measurement of Power Factor and Power Factor Tip-up of Rotating Machinery Stator Coil Insulation*

Doug Conley accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Doug Conley.

- *304-1977 (reaff 1991) IEEE Test Procedure for Evaluation and Classification of Insulation Systems for Direct-Current Machines*

Bal Gupta accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Bal Gupta.

- *429-1994 IEEE Recommended Practice For Thermal Evaluation of Sealed Insulation Systems for AC Electric Machinery Employing Form-Wound Pre-Insulated Stator Coils for Machines Rated 6,900V and Below*

Charles Wilson accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Charles Wilson.

- *522-2004 IEEE Guide for Testing Turn-to-Turn Insulation on Form-Wound Stator Coils for Alternating-Current Rotating Electric Machines*
- *1043-1996 (reaff 2003) IEEE Recommended Test Procedure for Performing Voltage-Endurance Testing of Form-Wound Coils and Bars*
- *1107-1996 IEEE Recommended Practice for Thermal Evaluation of Sealed Insulation Systems for AC Electric Machinery Employing Random-Wound Stator Coils.*

Dr. Nancy Frost accepted responsibility for reaffirming this document. A meeting will be held in Indianapolis, IN to review this document. Comments about this document should be directed to Dr. Nancy Frost.

- *1434-2000 IEEE Guide to the Measurement of Partial Discharges in Rotating Machinery*

A meeting, chaired by William McDermid, was held at the 2004 EIC in Indianapolis to determine the need to revise this document. Attendees voted unanimously to reaffirm this document in its current form. This standard is being submitted for reaffirmation.

- *1553-2002 IEEE Test and Acceptance Criteria for Voltage-Endurance Testing of Form-Wound Coils and Bars used in Hydroelectric Generators and Large Pumped Storage Motors*

5. Working Group Reports and Discussion

- *56-1977 (reaff 1991) IEEE Guide for Insulation Maintenance of Large Alternating-Current Rotating Machinery (10,000 kVA and Larger), Chair: Doug Conley*

Reviewed the latest revisions. Revision of this document is nearing completion. A PAR will be submitted before the next meeting.

- *117-1974 (reaff 1991) IEEE Standard Test Procedure for Evaluation of Systems for Insulating Materials for Random-Wound AC Electrical Machinery, Chair: Harold Miller*

Harold will submit this document to IEEE for a reaffirmation ballot.

- *433-1974 (reaff 1991) IEEE Recommended Practice for Insulation Testing of Large AC Rotating Machinery with High Voltage at Very Low Frequency, Chair: Howard Sedding*

Review and revision of this document is complete. A PAR will be submitted. The revised document will be submitted for ballot.

- *434-1973 (reaff 1991) IEEE Guide for Functional Evaluation of Insulation Systems for AC Electric Machines Rated 2300 Volts and Above, Chair: Lori Rux*

This document has been submitted to IEEE for ballot.

- *1310-1996 (reaff 2004) IEEE Recommended Practice for Thermal Cycle Testing of Form-Wound Stator Bars and Coils for Large Generators, Chair: Greg Stone*

Reviewed proposed revisions to this document. The next meeting will be held in Indianapolis, IN.

- *New Document for Test and Evaluation of Stator Cores, Chair: Glenn Mottershead*

Excerpts from numerous IEEE documents concerning test and evaluation of the stator cores were reviewed. Attendees voted unanimously to create a new document that specifically addresses stator core related issues. The next meeting will be held in Indianapolis, IN.

6. Liaison Reports

- IEC

Dr. Greg Stone did not have any new information to report concerning IEC documents and activities with relevance to this subcommittee.

He did report that TC98 and TC15E are going to be merged to create TC112.

- CIGRE

No report was provided.

- IEEE Guide for Rewinds of AC Synchronous Generators

A meeting of this working group will be held in Indianapolis, IN.

7. Old Business

No discussion.

8. New Business

We discuss the status of 510-1983 (reaff 1992) IEEE Recommended Practices for Safety in High-Voltage and High-Power Testing. This document has been administratively withdrawn but is referenced in many of this subcommittee's documents. It was reported that this document is the responsibility of Power System Instrumentation Committee. Bal Gupta commented that we should express our concern to the Standards Committee about that this document being administratively withdrawn.

9. Next meeting

The next meeting will be held during the EIC/EMCW Conference in Indianapolis, Indiana in October 2005.