U.S. National Committee of the International Electrotechnical Commission,
A Committee of the American National Standards Institute

Technical Advisory Group for IEC TC 14

TAG Administrator:
National Electrical Manufacturers Association
1300 North 17th Street, Suite 1752, Rosslyn, VA 22209
Tel: 703-841-3252, fax: 703-841-3353

11.2 – Liaison Report - Technical Advisory Group for IEC TC 14

MINUTES

PLACE OF MEETING:	The Hilton Miami Downtown 1601 Biscayne Blvd. Miami, Florida 33132 Soprano Room
DATE AND TIME:	**Monday, April 20, 2009** 8:15 AM
PRESIDING OFFICER:	P. Hopkinson, Technical Advisor

Members Present:

S. Choinski	NEMA Staff, TAG Administrator
P. Hopkinson	Hvolt, Inc.
R. Girgis	ABB
S. Kennedy	Niagara Transformer
J. Lackey	PowerNex Associates Inc
P. Hopkinson	Hvolt, Inc., TA
S. Kennedy	Niagara Transformer Corporation
R. Marek	Dupont Advanced Fibers Systems
H.J. Sim	Waukesha Electric Systems

Members Absent:

C. Colopy	Cooper Power Systems
J. Corkran	Cooper Power Systems
J. Foldi	Foldi & Associates
G. Morehart	ACME Electric Corporation
P. Powell	PEPCO
B. Simpson	Innovative Paper Technologies

Others present:

R. Asano	ABB
R. Benson	Consultant
A. Cancino	IEM-Mexico

J. Caskey	NEMA
D. Cherry	ABB
L. Davis	Reuel
K. DelaHoussaye	Howard Industries
L. Dix	Quality Switch
R. Dong	Progress Energy
D. Dorris	Nashville Electric Service
C. Drexler	Kentucky Association of Electric Cooperatives
M. Espindola	ABB
M. Jaroslewski	Delta Star
A. Johnson	Norplex-Micarta
J. Luksich	Cooper Power Systems
H. Nordman	ABB Oy, Transformers
J. Lopez	GE
D. Perco	PTE
J. Puri	Transformer Solutions
S. Razuvayev	Delta Star
D. Stankes	3M IPT
K. Sundhvist	Nynas AB
E. Tenyenhuis	ABB
L. Tong	SYGT
R. Wicks	DuPont

1. CALL TO ORDER

The meeting was called to order, meeting guidelines reviewed and attendance recorded

2. APPROVAL OF THE AGENDA

The Agenda was approved as written.

4. APPROVAL OF THE PREVIOUS MINUTES

The Minutes of the meeting held October 6, 2008 in Porto, Portugal are not available.

5. REVIEW AND UPDATE OF USNC ROSTERS FOR TC 14

A roster was circulated and corrections were noted.

6. REVEW OF PLENARY MEETING HELD IN SAO PAULO, BRAZIL, NOVMBER 19, 2008

6.1 Mr. Jim Fyvie stepped down as Chairman at the end of the meeting. Paul Jarman of the UK is the new Chairman

6.2 Mr Phil Hopkinson asked the question if frequency conversion factors as given in IEEE C57.12.90 should be introduced in IEC Standards

8 countries were in favor, 5 countries against and 1 country abstained.

The Chairman suggested deferring this issue as the voting result is too close and IEEE is already producing a document which could later be adopted as a dual-logo Standard

6.3 IEEE Standard C57.15 D8.3 – potential documents for dual-logo Standard

Mr Charles Jacquemart suggested that the US NC could circulate a NP to P-Members to see if there are enough P-Members supporting this proposal. The work could be done under a Joint IEC/IEEE Working Group according to AC 22, 2008.

By show of hands, the following countries supported this proposal: Brazil, US, Italy and Nigeria.

6.4 IEEE C57.123 as a potential dual-logo Standard according to AC 22, 2008

Mr Karl-Heinz Haeger (DE) recommended not including IEEE C57.123 as an IEC/IEEE dual-logo Standard. After some discussion there was no support for the inclusion of this IEEE Standard as a dual-logo Standard.

It was suggested that the lack of support for the IEEE standards was due to protectionism. Delegates were looking after their own national or company's interests. Another possibility is that the delegates recognize that dual logo documents are not very useful. A base document with a header and footer attached is not a very useful document. Any changes needed to be acceptable to IEC need to be made to the document before it is offered to IEC. A better route may be to use a joint working group between IEC and IEEE.

6.5 Establishment for Category D liaison with IEEE

IEEE should send a request to IEC to specify which WG they want a category D liaison with, within IEC/TC 14. Phil Hopkinson agreed to take this message back to IEEE. Jin Sim has been proposed to be a Cat D Liaison to MT5, however the proper paperwork has yet to be completed.

6.6 Plenary Meeting 2009

The US has been asked to host the 2009 TC14 Plenary meeting. An invitation has been issued to host the meeting November 19-20, 2009, at/near the NEMA offices in Rosslyn, VA. Working group and Maintenance Team meetings will be held November 16-18.

This is an excellent opportunity for US members to attend the meeting as an observer, and a few of the attendees expressed interest.


14_596_RM.pdf

---

7. STANDARDS ACTIVITIES

7.1 PNW 14-597 Ed. 1.0 - Measurement of Frequency Response for Power Transformers (Convenor: Paul Jarman)

This is a new project that will be titled IEC 60076-18 Power transformers – Part 18: Measurement of frequency response. Experts are sought for the WG, and no one expressed interest in participating.


14_607e_RVN.pdf

7.2 IEC 60076-1 Ed. 3.0 - Power transformers - Part 1: General (MT5 Convenor: P. Hopkinson)

All comments to the 2nd CD have been addressed and the document will be circulated as CDV by June 2009

7.3 IEC 60076-2 Ed. 3.0 - Power transformers - Part 2: Temperature rise for oil-immersed transformers (MT6 Convenor: A. Bossi)

All comments to the CD have been addressed and the document will be circulated as a 2nd CD by June 2009

7.4 IEC 60076-3: Power transformers - Part 3: Insulation levels, dielectric tests and external clearances in air:

This is a new project, with Mr. Shirasaka (Japan) is the Convenor. Experts are sought for the MT. Rick Marek and Ramsis Girgis are to be nominated to USNC as experts.

A new scope has been proposed. Comments (approval, additions, etc.) are requested by TC14 by 15 May 2009

Scope for the maintenance of IEC 60076-3 Power transformers –Part 3 Insulation Levels, Dielectric tests and external clearances in air.

The scope of work for the maintenance team to revise IEC 60076-3 is as follows:
1) Consider the work of the Joint IEC/CICRE working group on UHV and propose dielectric test levels for transformers with Um > 800kV.
2) Consider means of improving the clarity of the document, for example by splitting the document into parts relating to specific voltage ranges.
3) Consider whether all the test connections given in the document are still relevant and practically used.
4) Ensure that phase to phase test levels are adequate for three phase transformers tested using a single phase test supply.
5) Consider whether a reduction in the number of possible test voltages given in tables is possible and whether the test level tables relating to 'North American practice' need to be revised following the recent revision of the equivalent IEEE document.
6) Consider whether greater compatibility with IEEE test methods and levels is possible or desirable.
7) Consider whether any changes to IEC 60060 are relevant to this document
8) Make any technical and editorial changes required to improve the accuracy and clarity of the document, or to bring it up to date.


14_608e_MCR.pdf

7.5 IEC 60076-10 Ed. 2.0 - Power transformers - Part 10: Determination of sound levels (Convenor: Dr. C. Ploetner)

This is a new maintenance project, and the Convenor will be Dr. C. Ploetner. Ramsis Girgis and Jeewan Puri are to be nominated to USNC as experts

Proposed scope revision – comments (approval, additions, etc) are requested by TC14 by comments: 1 May 2009.

Proposed scope for the establishment of a new maintenance team for the Revision of IEC 60076-10 Power Transformers - Determination of Sound Levels

Since edition 1 of IEC 60076-10 in 2001 was published, it was possible, to carry out sound intensity and additionally or alternatively sound pressure measurements. In between, many results, based on measurements in test laboratories of transformer manufacturers, are available. Evaluations demand clarifications in revision work. Among others, following items should be processed by the maintenance team:

1. When both measurements (sound pressure and sound intensity) are carried out under similar conditions, a deviation between sound pressure and sound intensity measurement is detected.

2. It was found, that the mainly historically justified measuring distance of 0.3m and its application rules cause under certain conditions erroneous measurements.

3. The correction due to the background noise should be improved and be more severe. The same applies to the correction due to reflexions of the measured values (corrections, caused by reflexions, should be proven by measurements).


14_601e_MCR.pdf


14_604e_INF.pdf

7.6 IEC 60076-12 Loading guide for dry-type power transformers (MT 27 Convenor: M. Sacotte)

The work on this project is complete and the standard was published November 5, 2008

7.7 IEC 60076-14 TS Ed.2: Power transformers - Part 14: Design and application of liquid-immersed power transformers using high-temperature insulation materials (MT4 Convenor: R. Marek)

The work on this project is complete. It has been approved and will be registered as a Technical Specification by April 2009


14_600e_RVC.pdf

*******NOTE: The remaining agenda items were not addressed due to time constraints.******

7.8 IEC 60076-16 Ed. 1.0 - Power transformers - Part 16: Transformers for wind turbines applications (WG31 Convenor M. Sacotte)

Currently at CD. Comments to be addressed by WG.

7.9 IEC/TR 60076-17 Ed. 1.0 - Evaluation of electromagnetic fields around power transformers

Based on CLC/TR 50453. TC14 is setting up a project team to examine the comments on 14/602/DTR and develop a final version of the IEC technical report. All members of TC14 have been invited to propose experts and a project leader.


14_603e_INF.pdf


14_602e_DTR.pdf

7.10 IEC 61378-1 Ed. 2.0 - Convertor transformers - Part 1: Transformers for industrial applications (MT7 Convenor U. Piovan)

a) in November 2008 the MT reviewed the comments of the national committees (document: 14/577/CC) on 14/572/CD - IEC 61378-1 Ed.2 and added the part about thermal tests.

b) The Revised - Compilation of comments on 14/572/CD - IEC 61378-1 Ed.2: Converter transformers - Part 1: Transformers for industrial applications (document: 14/577A/CC) was circulated among the national committees on November 28, 2008.

c) the MT7 will meet from February 17 to 19 to discuss the part about transductors and produce a second draft for circulation.


14_599e_INF.pdf

7.11 Other proposed standards

7.11.1 CLC EN 50216-9: Power transformer and reactor fittings - Part 9: Oil-to-water heat exchangers

Has been offered to IEC/TC 14 by CENELEC with the aim of its inclusion into the international standardization process.


14_605e_DC.pdf

7.11.2 CLC EN 50216-10: Power transformer and reactor fittings - Part 10: Oil-to-air heat exchangers

Has been offered to IEC/TC 14 by CENELEC with the aim of its inclusion into the international standardization process


14_606e_DC.pdf

8. OTHER ISSUES

Transformer efficiency may be addressed by TC14 in the future. An excerpt from SMB/3970/R is provided below

Power transformers IEC/TC14 - Priority 1

SG1 Recommendation 3a:

IEC/TC 14 "Power transformers" to develop a common classification and associated calculation methods for power transformers with a view to facilitate harmonization of energy labelling schemes existing at various national and regional levels. It is anticipated that the resulting IEC publication will be of particular interest for use in industrial distribution systems.

Note 1: Attention is drawn to (among others) CENELC EN 50464-1:2007, which provides a loss level classification for three-phase oil-immersed distribution transformers 50 Hz, from 50 kVA to 2 500 kVA with highest voltage for equipment not exceeding 36 kV. See item 4 in SMBSG1/Italy02 for further national standards to be considered in this context.

Note 2: As a first step of harmonisation, a Technical Report or a Technical Specification could be considered, however, eventually an International Standard seems to be desirable.

approved (SMB/3718B/R SMB/3718C/CC)

SG1 Recommendation 3b:

Furthermore, a guideline document (Technical Report) is required on the choice of the optimal transformer in a given application.

approved (SMB/3718B/R SMB/3718C/CC)

9. NEW BUSINESS

There was no new business.

9. DATE AND PLACE OF THE NEXT MEETING

The next meeting will be held in October, 2009, in Chicago, Illinois during the IEEE Transformer committee meetings.

9. ADJOURN

Meeting adjourned at 9:30 am.

Reported By: S. Choinski April 20, 2009