

MINUTES

TC14 Technical Advisory Group

Place of Meeting: Westin Bayshore Resort & Hotel
Vancouver, BC, Canada

Date & Time: Monday, 15 April 2002

INTRODUCTIONS

Members Present

C. Colopy	Cooper Power Systems
D. Foster	Olsun Electric Corp
J. Gauthier	Consultant
R. Girgis	ABB Power T & D
P. Hopkinson	Square D Company
C. Johnson	ABB Inc
S. Kennedy	Niagara Transformer
R. Marek	Dupont Advanced Fibers Systems
P. Payne	PEPCO
J. Puri	Consultant
H. Jin Sim	Waukesha Electric
L. Wagenaar	American Electric Power

Others Present

D. Allan	Chairman, IEC TC14
D. Brender	Copper Development Association
N. Bush	CDA
T. deCourcelle	IEEE Standards
L. Dix	Quality Switch
D. Fallon	PSE & G
J. Fyvie	VA Tech Transformers, UK
R. Girgis	ABB Power T & D
J. Kelly	S.D. Myers
A. Kline	Consultant
N. McQuin	McQuin Electrical Power Consulting
R. Nordman	Lisbon Engineering
G. Pregant	Delta Group XFD
R. Simpson, Jr	Quin-T Corp
H. Zarmandily	Schneider Electric Co

1. Approval of Previous Minutes

The minutes of the meeting held on 16 October 2001, were approved as submitted.

2. Approval of agenda

The agenda was approved as issued.

3. Membership

Members reviewed the TAG roster and made such corrections and changes as needed. Note was made of the need to pay dues promptly. The USNC has sent billings for this year's membership.

4. Old Business

The Technical Advisor reported that there were a number of TC14 document circulated to national committees for comment and/or vote in preparation for the committee's plenary meeting in September. He reported that he had reviewed a number of the status and conducted a brief document by document review:

A. Revision of IEC 60076-5 (Ability to withstand short-circuit)

It was noted that a document issued by TC14 contains an annex that requires testing and not calculations. It was noted that Jim Fyvie heads a CIGRE WG that has developed a document for consideration. The community is awaiting the issuance of that document for consideration.

Members engaged in a brief discussion on current work under development in CIGRE and experiences in assessing short-circuit failure rate of transformers.

Members engaged in an extended technical discussion on using the calculation methodology for determine the withstand short-circuit test, noting that the failure rate of devices in the field was 1 in 8000 manhours per year but under the test conditions, the failure rate was 50%.

B. Revision of IEC 60076-3 (Insulation levels and dielectric tests)

Document approved and published.

C. 14/413/FDIS 60076-4 Lightning Impulse

The US has voted favorably for this FDIS. It contains the basic elements the US feels should be included in such a standard.

This document covers both industrial and HV DC applications and appears acceptable.

D. Revision of IEC 60378-3 (Converter Transformers for HVDC)

The work on the document is complete.

E. 14/409/NP – IEC 60378-3 Guide for application

After review, the Technical Advisor proposed to vote affirmative. It was noted the document covers both industrial and HVDC applications

F. Revision of IEC 60214 (Tap Changers)

Action on this document is complete. Craig Colopy and Tom Traub have been effective in working with this WG to include US concerns and related US standard issues addressed in the document.

The TA expressed disappointment that the test for thermal stability is missing from the document. This requirement is being pursued in US documents and would likely result in the pursuit to include the requirement in a future revision of IEC document 60214.

It was noted also that 14/415/MCR had been issued for an application guide. It is expected that a CDV will be circulated by January 2003.

G. Revision of IEC 60551 (Audible Sound)

It was reported that 60551 is now IEC 60076-10. A CD document (14/400/CD), titled User guide for sound level determination (IEC 60076-10-1) has been issued. It was noted that the US expert to the TC14 WG responsible for this document has presented data to the WG on US applications, particularly those contained in NEMA TR-1, but that was not accepted. It was noted that sound level standards are needed. The Technical Advisor noted that the reference tables in the document appear acceptable.

H. IEC 60076-7 (Liquid filled Loading Guide)

It was noted that the committee has issued for national committee comment its latest draft 14/414/CD which is similar to the US document C57.91 but containing fewer references.

It was noted that the loading guide for IEEE contains tables for life loss and permissible loading. These are missing from the IEC document. It was noted that Hasse Nordman, from Finland, is the new chairman and is present at the IEEE meeting.

I. Discussion of new document 14/397A/NP (High temperature insulation for liquid filled transformers)

A new document Guide is under development. A couple of issues: the WG has 7 members, the group is seeking an expert from TC10 to obtain technical information. This document will use IEEE 1276, which was for mineral oil only. The IEC document will address additional oils.

It was noted that there is no US expert on the WG. A US expert with utility experience and technical knowledge of the subject is needed. A candidate will

be sought in the IEEE Transformer Committee. Joe Kelley is a leading candidate!

The TA asked if the upper limit of the operating temperature has been defined. It has not.

It was noted that TC98 is seeking to address high temperature insulation systems for fluid filled devices and it is hoped that the information on establishing thermal values will be available. Bill Simpson indicated a willingness to serve as the liaison between TC14 and TC98. It was recommended that such an arrangement be raised at the plenary meeting of TC14 in Rome

The US TA for TC10, Joe Kelley, provided members with a brief overview of on-going activities in IEC TC10 for which they may have interest: IEC 60296, IEC 60490, IEC 60567 and IEC 60422.

J. Revision of IEC 60076-11 (Dry-type power transformers)

The slow work in the WG is the cause for the rescheduling of the plenary meeting of TC14. The document was the subject of considerable discussion at the last TC14 meeting and received considerable comment that did not sit well with the convenor.

Valuation of flame resistance test. Members engaged in an extended discussion of the conduct of the test and its consequences. The underlining question, it was noted, is whether or not the test is a realistic one. It was also noted that there was no way to detect the problem externally. Two categories F1 and F2 – one requires the test and one does not require.

L. Distribution Transformer Energy Efficiency.

The leadership missed the window of opportunity to present a new work proposal to the IEC. It was noted that the European standard organization CENELEC has addressed efficiency in some manner and is expected to submit a document to the IEC for consideration. It is likely not to be accepted because it is a regional or local matter (US, Japan, etc).

M. Review activities of IEC TC106 (EMF)

The TA briefly reviewed key issues and data under review and commented on the studies that have been developed and considered to date. It was noted that the concerns were more related to economic (trade) rather than human injury.

5. New Business

A. Technical Advisor for TC14

Mr Hopkinson reported that his company had withdrawn from certain aspects of the transformer business and that they no longer endorsed his participation in the

IEC activities. He reported that in light of the funding support he would receive from NEMA to attend the next plenary meeting of TC14, he would remain in place until early next year. Members engaged in a brief discussion on the duties and responsibilities of the position. It was requested that interested candidates for the position should contact the TAG Administrator.

B. TC14 Meeting in Rome, Italy

The convenor noted the rapid influx of TC14 standards for national committee review and in preparation for the plenary meeting in Rome, Italy from 25 to 27 September 2002.

C. Retirement of the chairman of IEC TC14

The chairman reported the Dr Dennis Allan, the chairman for IEC TC14, has announced his retirement after the September meeting in Rome. Members engaged in a brief discussion of finding an interested and qualified US individual to pursue the position. Members were requested to send their nominations for the position to the TAG Administrator before 11 May 02.

D. Discuss and adopt USNC TAG operating procedures

It was noted that the USNC has approved a requirement that all USNC-recognized Technical Advisory Group put in place operating procedures. In doing so, the USNC provided a copy of the operating procedures to review and adoption. It was noted that this document would be circulated also to members very shortly for their approval. The technical advisor recommended that the documents be quickly reviewed and approved. The document will be sent to the membership shortly for appropriate action.

6. Time and Place of Next meeting

The chairman noted that the next meeting of the WG would be held in October, during the IEEE Transformer Committee meeting in Oklahoma City, OK in October.

7. Adjournment

There being no additional business, the meeting was adjourned at 4:35 pm.