

## **10.9 Underground Transformers and Network Protectors – Carl G. Niemann (Chair), Dan Mulkey (Vice-Chair)**

### **Meeting Minutes – April 13, 2011**

#### **10.9.1 Introduction/Attendance**

The Underground Transformers and Network Protectors Subcommittee met on Wednesday, April 13, 2011, in the Toucan room of the Catamaran Resort Hotel & Spa in San Diego, California, at 11:00 AM with 7 members and 18 guests present. Three guests were accepted into membership – Jeremy Sewell, Mark Faulkner, and Paul Buchanan. Two members were demoted to guest status due to lack of attendance.

#### **10.9.2 Approval of Minutes**

The minutes of the October 2010, meeting in Toronto, Ontario, Canada were approved as submitted.

#### **10.9.3 Membership**

There are 12 members, and attendance by 7 is required for a quorum, which was achieved for this meeting.

#### **10.9.4 Chairman's Remarks**

The chair provided a summary of the Administrative activity.

#### **10.9.5 Working Group Reports**

##### **10.9.5.1 Underground Single Phase Transformers (C57.12.23) – A. Traut, Chairman**

The WG did not meet. The document was published in April 2009 and is valid until 12/31/2014. The WG has no new issues to address so it will be inactive until revision or reaffirmation is required. After the TF on Tank Pressure Coordination lead by Carlos Gaytan, concludes this standard will need to be revised.

##### **10.9.5.2 Three-Phase Underground-Type Transformers (C57.12.24) – Giuseppe Termini, Chairman**

1. The meeting was called to order by the Chairman at 8:00 a.m. on Monday, April 11, 2011 in the Toucan Room of the Catamaran Resort Hotel. Brian Klaponski acted as the recording secretary.
2. The first discussion was about the roster and membership on this WG. There was a quorum for this meeting.
3. An agenda was presented and introductions were made. The meeting was attended by 9 members and 19 guests.
4. The Chairman asked if anyone in the Working Group knew or had knowledge of any existing or pending patents that may affect the work on this standard. No one responded as having knowledge about any patents affecting this WG. Later in the meeting there was discussion that perhaps GE may potentially hold patents in the tank rupture area however, there are no existing or pending patents that affect the standard as it is presently published.

5. The Meeting Minutes from the previous meeting in Toronto on October 25, 2010 were reviewed and approved.
6. The Scope and Purpose for the start of another cycle of this specification's revision were discussed so that a PAR could be submitted before the next meeting. It was motioned, seconded and the vote was unanimous to not make any changes to the existing Scope and Purpose.
7. The Chairman asked all WG members to review the recently published standard with the intent of bringing any suggested changes forward at our next meeting.
8. It was decided to appoint a liaison (Justin Pezzin volunteered) to report back to this WG in regards to the Task Force on Tank Rupture with the intent of trying to include that work in this standard.
9. The meeting was adjourned at 8:45 am with the next meeting set for Boston on October 31, 2011.

### **10.9.5.3 Liquid Filled Secondary Network Transformers (C57.12.40) – Brian Klaponski, Chairman**

1. The WG met on Monday, April 11, 2011 at 09:30 am with 11 members and 23 guests.
2. The chairman reviewed the patent legal issue and asked whether there were any patents or patents pending that would affect the WG or standard. None were identified.
3. The minutes of the October 25, 2010 meeting in Toronto, Canada were reviewed and approved. Carl Niemann made a motion to approve the Meeting Minutes and Ed Bertolini seconded the motion and they were approved.
4. The meeting consisted of the review of the comments received from the balloting process as of Friday, April 8, 2011. There was an extensive discussion on the balloting process and the fact that some members were not able to cast a vote because of some unknown IEEE rules that prevented individuals from casting a ballot.
5. The chairman suggested that the working group would be the ballot resolution body to resolve the balloting comments. This motion was voted on and approved.
6. The remaining of the meeting focused on the review and resolution of the following balloting comments:
  - A. Comment 1: Add a comma to the voltage value (34 400) shown in the purpose.  
Resolution: Comment not incorporated. The value as noted is consistent with the way this voltage value is shown on other IEEE standards.
  - B. Comment 2: Add a space to the voltage value (13200) shown in the Rating column of Table 2.  
Resolution: Comment will be incorporated.
  - C. Comment 3: Normative reference C57.91 is not cited in text so either cite it or move to Bibliography.  
Resolution: The chairman will take comment under review and will resolve.
  - D. Comment 4: Section 5.6.1  
Resolution: Leave section as is. Comment will not be incorporated.
  - E. Comment 5: Section 5.5.5.5 - Remove the word: "level" from the last sentence of this section.  
Resolution: Comment will be incorporated.
7. Steve Schroeder made a comment to remove the word "typical" from the 4th sentence of this section. Since this comment was not received through the balloting process, the Chairman asked Steve to submit this comment through the balloting process.

8. The rest of the comments would be reviewed by the WG members via email soon after the ballot closes on April 14 at midnight.
9. The meeting was adjourned at 10:45 am with the next meeting set for Boston, MA, in October 2011.

#### **10.9.5.4 Secondary Network Protectors (C57.12.44) – Bill Wimmer, Chairman**

1. Mark Faulkner chaired the meeting as Bill Wimmer could not attend.
2. The meeting was called to order and a review was made of the members present. Introductions were made of all members and guests present.
3. A call was made of attendees to disclose any patents that may have an impact on the activities of this working group. No patents were brought forward.
4. The Toronto minutes of Oct. 25, 2010 were reviewed and approved (Bertolini/Niemann).
5. Discussion of Changes to the Document
  - A. Page 1 – it was decided to leave the references with fixed dates
  - B. Clause 5.2.3.3 on Page 7 – The percentage micro-ohm change that is acceptable needs review. Ed Bertolini will undertake to review information and to make a recommendation of an acceptable percentage micro-ohm change.
  - C. Clause 6.2.1.3(b) on Page 11 should read “electromechanical”
  - D. Clause 10.5.20 on Page 23 should read: “The removable breaker shall be grounded through all of the mounting bolts to the enclosure.”
  - E. Annex H on Page 47 –
    - i. The WG agreed to eliminate the date reference to each standard (year).
    - ii. The WG agreed to continue including withdrawn references
    - iii. IEEE 100 is now The IEEE Standards Dictionary: Glossary of Terms and definitions.
6. The WG adjourned at 12:15 pm with the next meeting in Boston on Oct. 31, 2011.

#### **10.9.5.5 Ventilated Dry-Type Network Transformers (C57.12.57)**

1. The WG was not scheduled to meet.

#### **10.9.6 Old Business**

1. The 123 System Memory size limitation for email attachments is still an issue
2. Long discussion on patent issues continues

#### **10.9.7 New Business**

1. Brian Klaponski – 10 years is a long time. You can lose a lot of knowledge in that time frame. Standard revisions should be done on a 5 year time cycle to avoid that.
2. Brian Klaponski has volunteered to visit IEEE headquarters with Ed Smith to explain the issues on moving a standard project through the system when you only use it every four or five years

#### **10.9.8 Future Meetings**

- The Fall 2011 meeting will be October 30 – November 3, 2011 in Boston, Massachusetts