

**MINUTES OF THE MEETING OF THE W.G. FOR THE  
REVISION OF IEEE C57.21 IN MINNEAPOLIS, MINNESOTA, OCT. 15, 2007**

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The W.G. for the Revision of IEEE C57.21 met in the Duluth Meeting Room of the Hilton Minneapolis Hotel in Minneapolis, Minnesota on Oct. 15, 2007 from 11:00 a.m. to 12:15 p.m. There were 16 members and 17 guests present. The following are the highlights.

1. Introductions were made.
2. The minutes of the Dallas meeting were approved.

Note: The minutes of the Minneapolis meeting will not be formally approved until the next meeting in Charlotte, NC.

3. IEEE patent policy was reviewed and no patent issues were identified re the revision of IEEE C57.21.
4. The remainder of the meeting was devoted to discussing the comments associated with the 5 negative ballots received during the formal IEEE ballot of Draft #12 of the revision of IEEE C57.21. The following are the highlights.

(i) JEFF NELSON

- Clause 12.8: IEEE C37.109 Guide for the Protection of Shunt Reactors will be "cited" and added to the "Normative References".
- Clause 12.2: To be in line with the requirements of the NESC the pedestal height recommendation will be 8 feet 6 inches.
- Table 5: The proposal to change maximum voltages for 115 kV, 161 kV and 230 kV systems from 121 kV, 169 kV and 242 kV to 123 kV, 170 kV and 245 kV was rejected as current levels are per the current IEEE transformer standards. The proposal is based on the practice in IEEE Switchgear Committee standards.
- Clause 3.2 and Clause 3.2.3: The title of Clause 3.2.3 will be changed to "Rated Voltage" from "Rated System Voltage"; rated voltage is now defined specifically. The statement in Clause 3.2.3 "Rated voltage is normally the voltage associated with nominal system voltages" will be deleted.
- Table 1: Table 1 and Table 2 will be modified to show no correction for altitudes  $\leq 1000\text{M}$ .
- Clause 4.1.5: Example (2) will be modified to include seismic to be consistent with the latest revision of IEEE C57.12.00. Note IEEE 693-2005 is "cited" in Clause 10.10.

- (ii) LOREN WAGENAAR
  - Clause 10.3.4.4: The third paragraph will follow the Notes to ensure there is no confusion as to what the note contents refer to.  
  
Notes:  
“However, only.....”.
  - Clause 10.3.3.1 and Clause 10.3.3.2: Comment that the end user must be notified at the tender stage re testing with a single phase source was accepted.
  - During the discussion of LOREN WAGENAAR’s comments it was noted that the clause numbering in Section 10.3.3 was in error e.g. “Turn-to-turn Overvoltage Test for Dry-Type Shunt Reactors” etc. The Chairman will correct this for the “recirculation” draft.
- (iii) ALLAN DARWIN
  - Clause 10.6.6.4: Equation 11 is incorrect. It is correct in IEEE C57.21-1990. This version will be used. The title of Clause 10.6.6.4 will be changed to “Calculation of Sound Level at Each Microphone Position”.
- (iv) CARLOS PEIXOTO
  - Clause 10.3.3.1.4: The request to change p.d. levels was not accepted by the W.G. Values are in line with those in IEEE transformer standards.
  - Section 4.1: Clause 4.1.6 will be added covering “Environmental Conditions” and will be based on the content in Annex A Clause A.3.4. The Chairman will make this change.
- (v) JIM WILSON
  - Jim Wilson’s comments are accepted.
- (vi) The comments associated with “approved with comments” ballots are largely editorial or corrections and are accepted. They will be included in the “recirculation” draft.

The Chairman requested that W.G. members provide any input as soon as possible. The Chairman will produce Draft #13 and send to W.G. members for approval prior to “recirculation ballot”. The meeting adjourned at 12:15 p.m.

R. Dudley

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