7.2 C57.13 Instrument Transformers – J. Smith – Unapproved Minutes

The Subcommittee did not meet in Minneapolis. However 2 Working Groups did meet and submitted the following reports.

7.2.1 Working Group Reports

7.2.1.1 Working Group on Test Requirements for High Voltage Instruments Transformers Rated 115 kV and above

The WG met on October 16, 2007. Three members and six guests attended the meeting. Two guests requested membership. The meeting was chaired by Mr. P. Riffon.

The agenda was approved as written.

Minutes of the Dallas meeting were approved as written.

The IEEE patent disclosure requirement policy was discussed. None of the members and guests present during the meeting were aware of any patents related to the work of the WG.

The first technical subject on the agenda was the new Annex on Endurance Chopped-Wave Test. This Annex has not been produced yet since lack of time. A first draft will probably be ready for review during the next meeting and will be part of D2 of the revision of C57.13.5.

Draft 1 of revision of C57.13.5 has been circulated to the WG membership prior to the meeting. Changes made have been reviewed and the following actions have been agreed upon:

- Regarding the accuracy of the accuracy measuring system (clause 4.3 of C57.13.5), the requirement to be better than 5 times than the required accuracy class to be measured might be changed to 4 times. Vladimir Khalin will check the latest development in this respect with Eddy So and will report at the next meeting.

- Clause 4.4.1 (Sealing tests) will be split in two subclauses one for oil-immersed and one for gas-insulated instrument transformers. In addition, the prescribed sealing tests for oil-immersed instrument transformers (Table 5) will be changed for "typical examples of sealing tests" since other methods might also be fully acceptable. First and second paragraphs will be adapted accordingly.

- Clause 4.4.2 (Mechanical strength of the transformer) has been reviewed and the following changes will be made:

- The standard seismic level will be changed to the low level (0,1g) has defined in IEEE Std. 693 in order to avoid unnecessary tests and/or calculations.

- Addition of terminal load values as defined by IEC will be added.

- Addition of ice-coating performance as defined by IEC will be added.

- The text will be re-arranged in order to split all different mechanical requirements.

Mr. Rolando Gomez's comments regarding dissolved gas content were slightly discussed but the meeting ran out of time. This subject will be discussed as the first point of order in the next WG meeting. Members and guests were asked to review Mr. Gomez comments prior to next meeting.

The meeting adjourned at 9:15 am on October 16, 2007.

7.2.1.2 PAR P1601 Optical Current and Voltage Sensing Systems - F. Rahmatian (TC/ITSC) and H. Gilleland (PSIM)

Session chaired by: F. Rahmatian
Attendees: V. Khalin, V. Nguyen, R. Gomez, P. Millward, M. Ceglia, M. Bibles, U. Radbrandt

Minutes (Unapproved)

- IEEE disclosure requirements regarding patent issues related to the WG work were presented
    - The participants were asked if anyone is aware of patents relating to the content of PAR 1601 work. There were no responses. It was noted that no patent or IP was disclosed or identified as relevant to P1601 work.
- Meeting agenda was reviewed and accepted.
- Minutes of meeting #16, Mar 12, 2007, Dallas, TX, and meeting #17 of P1601, Jun 27, 2007, Tampa, FL, were reviewed and approved. The minutes of meeting #17 are appended.
- Update on other standards/industry Activities was given:
    - IEC 61869-x series –new IEC instrument transformer standards, mostly editorial re-organization of 60044-x series. Next meeting of WG37 (61869-7/8/9/10) on non-conventional IT is in Oct 2007 in Paris, France.

Update on activity and status of the draft:

- The comments on the survey conducted from the WG members on Draft 8 were reviewed again (see minutes of meeting #17).
- The decision to start the process of balloting was re-iterated. The members attending were in agreement.
- Mr. Mathew Ceglia, Program Manager, Technical Program Development, IEEE-SA was present at the meeting and provided significant guidance and hands-on help in getting the draft ready for submission:
    - He pointed out that Oct 15 (same day) was the deadline for submission of Draft standards for editorial review to be considered for December meeting of NesCom.
    - He helped review document formatting, title, scope, and purpose to match exactly to the wording approved in the original PAR 1601.
    - Figure 1 was edited by Farnoosh Rahmatian.
    - Some references were moved from Normative Reference section (2) to Annex D (Bibliography). Those were the items not directly referenced in the text of the standard.
    - Two references (paper by E. So et. al.) on accuracy testing were added to Bibliography and referenced in Annex A – Test Code.
    - The document was saved as D09 (Draft 9)
    - The document was submitted on line to IEEE for editorial review ahead of the deadline.

Next Scheduled Working Group Meeting

- IEEE/PES Transformers Committee Meeting, March 2007.

Joint PSIM/Transformers Working Group
PAR P1601 Optical Current and Voltage Sensing Systems
IEEE/PES General Meeting
Convention Center, Tampa, FL

Wednesday, June 27, 2007
2:00 pm – 4:00 pm

Session chaired by: F. Rahmatian (TC/ITSC)
Attendees: E. So, H. Kirkham, D. Tandon, B. Djovic, J. Fitzpatrick.

Minutes (Approved, Oct 15, 2007, Minneapolis, MN)

- IEEE disclosure requirements regarding patent issues related to the WG work were presented
    - The participants were asked if anyone is aware of patents relating to the content of PAR 1601 work. There were no responses. It

was noted that no patent or IP was disclosed or identified as relevant to P1601 work.

- Meeting agenda was reviewed and accepted.
- Minutes of meeting #16 of P1601, Mar 23, 2006, Dallas, TX, were reviewed.

Update on activity and status of the draft:

- The latest draft, D08 (March 2007), was discussed – it includes updated figures.
- The comments on the survey conducted from the WG members on Draft 8 was reviewed.
    - Thanks to J. Smith for conducting the survey.
    - Only one comment was received, suggesting to change the minimum uncertainty requirement for the test set-up (for accuracy test) from 1/3rd of the accuracy class (as given in IEEE C57.13.5) to 1/5th of the accuracy class. It was decided to use 1/4th as the requirement, as previously agreed in the Montreal meeting, and to remain consistent with international metrology practices.
        - Note: Ideally, the metrology set up uncertainty should be 10 times better than errors to be measured. In cases where such metrology is difficult to achieve, 4 times better is the international practice. 5 times better is not a typical/standard practice (even though the users are naturally encouraged to use the most accurate metrology systems economically available).
- With regards to testing details, it was previously decided not to include details in the first release of this standard. References will be made to C57.13 and other publications in biography – future editions may include specific info. Dr. E. So volunteered to provide some text for this section in a week.
- Dr. So will help with the revision and balloting process in the following months
    - This PAR was taken under PSIM and as such Dr. So's help and guidance from PSIM will be very much appreciated
    - Next step, preparation for NESCOM review
    - Then, Balloting

Next Scheduled Working Group Meeting

- IEEE/PES Transformers Committee Meeting, Minneapolis, MN, Oct 15, 2007.