10.1 C57.13 Instrument Transformers – R. McTaggart – Unapproved Minutes

- **The Instrument Transformer Subcommittee met on Wed October 24 at 8:00 AM.**
- **11 of the 20 members plus 15 guests attended**
- **5 guests requested membership**

Chair's Remarks & Announcements

- **The schedule for future meetings was presented**
- **The previous meeting's minutes were approved as written**
- **The status of all C57.13 standards was reviewed**

10.1.1 Task Force Report: PARTIAL DISCHARGE IN BUSHINGS AND VTs/CTs

The task force on Partial Discharge in Bushings and PTs/CTs met on Monday October 22nd, 2012, at 4:45pm with 41 attendees. Of those, 14 members and 27 guests with 7 guests requesting membership.

- **The meeting was opened with attendance sheets and introductions.**
- **The minutes for the S12 Nashville meeting were presented.**
- **The TF Chair requested comments on the version #2-C of the guide which was distributed by e-mail prior to the meeting. 5 discussion groups were formed for focused discussiones on:**
  - **PD in Instruments Transformers, led by Vladimir Khalin.**
  - **Annex A- PD Test circuits, led by Eberhard Lemke.**
  - **Annex B- Shielding and Grounding, led by Wolfang Hauschild.**
  - **PD in Bushings, led by John Graham.**
  - **Generalities and Definitions, led by Eberhard Lemke.**
- **After the discussions, each group presented a summary of comments and suggestions from their discussion that will be considered in the next draft. Follow up by the group leaders with comments on the discussed draft #2-C. The TF Chair will provide e-mail addresses to the leaders to facilitate direct communication.**
- **Meeting was adjourned at 5:50 pm.**

10.1.2 Working Group on Current Transformers with mA range (PE/TR/PE/TR/Instrument-WG C57.13.7) - Henry Alton

The WG met on Tues October 22 with 17 people attending The Chair was not able to attend so there was only a short informal discussion. Vladimir Khalin explained the latest correspondence between himself and the WG Chair concerning burdens and a brief discussion followed. He will follow up with an email response

10.1.3 Working Group for Revision of IEEE C57.13 Instrument Transformers - R. McTaggart

The WG met on Tues October 22 with 16 of the 21 members present (Quorum attained) along with 24 guests - 5 of whom requested membership. This will be dependent on participation.
A brief history of the WG was presented along with the future milestones. The results of the most recent survey were summarized and the request made to submit comments on the new draft by Jan 15. No objections were heard so this will be the due date. It was also emphasized that the comments needed to include solutions, not just point out problems. There are some parts of the draft which WG members are still working on, particularly the SSVT and BCT annexes. These will be distributed as they are completed, no later than the end of 2012. The reference publications in Annex A were discussed and members asked to provide details on more recent books and papers.

A discussion of the Medium Voltage partial discharge requirements in the new draft took place next. Concerns were expressed that the in the current draft the PDEV values are too low for cases where line to ground connected instrument transformers may be exposed to ground potential shifts. The point was made that virtually all US systems are solidly grounded. Examples to the contrary were cited, including one from Carl Schuetz where isolated sections of the system are supplied by distributed generation and are not effectively grounded. This is a relatively new consideration that should not be ignored. Paul Millward pointed out that if these system conditions are known to the manufacturers they can provide the appropriate equipment, including line to line rated VT's in some cases. The Chair pointed out that the standard already differentiates Voltage Transformers by overvoltage requirements and that possibly this should be carried over to the PD requirements for VT's and CT's. Early feedback from a user was presented and discussed. He felt that the prestress voltages were adequate but that the extinction voltages should be raised from 1.2 to 1.5.

The discussion turned to the requirements for 115 kV and above, which in the current draft are the same as in C57.13.5. A majority of survey respondents had accepted this but the reduced prestress and extinction voltages allowed for routine tests was questioned – if the PDEV can be

1.5 x operating voltage for 362 kV and above then why not for lower voltages? There is a footnote under the table which indicates that the reason for the reduced values is that some test facilities are not capable of achieving the higher levels. Paul Millward demanded a further explanation of this and the Chair offered to try to determine the original thinking behind it.

Under New Business, Peter Balma brought up the subject of thermal ratings and overloading of CT's. The current draft does not have much information on this subject and it should be possible to make improvements for the next revision.

The Chair will resend the email with instructions to retrieve the draft along with the new password when it is available

11 Adjournment