RODE PC37.60 WG, Reclosers

April 28, 2015 – St. Pete Beach

Chair: David Stone

Meeting Minutes

1. **Call to order and introduction:**

   The Working Group for the revision of IEC 62271-111/IEEE C37.60-2012 ed. 2 held its 7th meeting on April 28, 2015 in St. Pete Beach, Florida, USA in conjunction with the IEEE Switchgear meetings. Convener David Stone opened the meeting at 8:00 AM.

2. **Roster Check:**

   Introductions were made. Attendance included 25 members of the Dual Logo Maintenance Team (DLMT) and 15 guests. Thirteen members of the DLMT were absent or excused. Refer to the attendance list at the end of this report.

   Mr. Brian Lester of the Australian Standards Organization was added to the membership as expert appointed by the Australian National Committee.

3. **Previous Meeting Minutes**

   The agenda was reviewed and approved without change. The meeting minutes of the C37.60 Asheville meeting held in September 2014 were approved.

4. **Meeting Highlights**

   - **Documents available on IEEE website**: All documents from the DLMT will be posted on the IEEE web site. Members may contact the Convener for the log-in ID and password.
   - Actions since last meeting were summarized:
     - IEC SC17A Plenary Meeting held in November 2014 accepted the MT recommendation to incorporate the new (pending) edition to the Common Specifications standard, IEC 62271-1
     - IEC SC17A asked the MT to reconsider Canada's comment to include testing for kpp = 1.3 (effectively earthed neutral systems.
     - IEC SC17A asked MT to prepare a new draft by May 15 for a second Committee Draft (CD) the results of which are to be discussed at the next plenary meeting in December 2015.
     - MT 34 for the revision of IEC 62271-1 Common Specifications completed its 3rd CD draft, comments from National Committees are due by July 3.
     - The WG's plan is to continue to reference both the IEC and the IEEE Common Specification documents. The IEEE WG C37.100.1 was to meet in the afternoon (of April 28).

   - Review of draft 4.1 in preparation for a second IEC CD and second IEEE ballot – key topics/decisions:
     - Addition of new test requirements for the effectively earthed neutral condition.

- The basic requirements of the kpp = 1.5 testing should be required for the kpp = 1.3 as appropriate, such as: full 4 shot sequence, 100 % rated current on 1st operation, 90 – 100 % allowed on succeeding operations of a sequence.
- A second test object should be permitted for kpp = 1.3
- Single-phase recloser do not need the kpp = 1.3 test since the single-phase test requirements are already more severe.
- Arcing time control not required if a sufficient number of random operations are made.
- Edgar Dullni made a presentation the conclusion of which was that the single-phase test method will pose a more severe stress on the recloser than required by the three-phase methods. The three-phase test is more representative of the normal network conditions. Note: A copy of Dr. Dullni's presentation is available on the WG IEEE Web site as IWD-31.

  The WG was not unanimous in acknowledging the need for the additional test requirements lacking any documented or antidotal evidence from the field. A proposal was made (by Dr. Leslie Falkingham) that the qualification of a recloser for effectively earthed neutral systems, kpp = 1.3, be made as an optional rating from the manufacturer. This approach was felt to be a reasonable compromise.

  A motion to this effect was offered by Dr. L. Falkingham: "(Propose) to add requirement for kpp = 1.3 testing as an optional test". The motion carried with 21 in favor, 1 opposed and no abstentions.

  Details of the test specifications were to be worked out by a smaller task group to meet on Wednesday, April 29.

- Inclusion of IEC Common Specifications clauses 8 through 12.
  - There was little support among the WG members to add new clauses 8 through 12 as they appear in IEC 62271-1. Some of the material is covered by other standards, e.g. safety.
  - A few of those present did feel that some of the material offered useful guidelines for specifications and instruction books while other felt that these topics were adequately covered outside the standard.
  - L. Farr and Bill Long agreed to develop a draft proposal for this material tailored to the recloser. The Chair emphasized the May 15 deadline to submit a draft for the 2nd IEC CD and that such a late addition to the standard could jeopardize the progress of the project. No commitment to add the draft proposal was made.
- Acceptance of the Common Specifications as specified in the new draft
  - The draft 4.1 was reviewed in the remaining time of the meeting with the aim of highlighting the references to common specifications.
  - Paul Found to recommend informative notes regarding cable entrance security (5.14.2)
  - Changes to the temperature rise table were discussed. These include the introduction of the terms OG (oxidizing gas) and NOG (not-oxidizing gas) in place of "air" and "SF_6". The allowable temperature rise for NOG was raised to 115 °C.

5. Next meeting:

Week of 20 September 2015; Catamaran Resort; San Diego, California, USA

6. Meeting was adjourned at 12:05 PM.

Submitted by:

David T. Stone
Working Group Chairperson, C37.60 and Convener for IEC MT47
Reclosers and Other Distribution Switchgear Subcommittee

May 05, 2015

Annex A: Meeting Attendance April 28, 2915

X = present at meeting

Role	First Name	Last Name	Company	Country	4/28/2015
Chair	David	Stone	DTS Technical Services	USA	X
Member	Peter	Agliata	Hubbell Power Systems	USA	X
Member	Chris	Ambrose	Federal Pacific	USA	X
Member	Herman	Bannink	KEMA Netherlands	Netherlands	X
Member	Robert	Behl	ABB	USA	X
Member	Antone	Bonner	Eaton	USA	X
Member	Eldridge	Byron	Schneider Electric	USA	
Member	Subir	Chakraborty	Schneider-Electric	France	
Member	David	Dart	NOJAPower	Australia	X
Member	Frank	DeCesaro	Eaton's Cooper Power Systems	USA	X
Member	Edgar	Dullni	ABB	Germany	X
Member	Leslie	Falkingham	Vacuum Interrupters Limited	UK	X
Member	Lawrence	Farr	Eaton Electrical	USA	X
Member	Mark	Feltis	Schweitzer Engineering Lab, Inc	USA	X
Member	Paul	Found	BC Hydro	Canada	X
Member	Jeffrey	Gieger	Thomas & Betts	USA	excused
Member	William	Glennon	Schweitzer Engineering Labs	USA	
Member	Anthony	Headley	UK Standards	UK	excused
Member	Christian	Heinrich	Siemens AG	Germany	X
Member	Harold	Hirz	Thomas and Betts	USA	X
Member	Edward	Jankowich	Representing ABB/T&B	USA	X
Member	Zhengli	Kou	China	China	
Member	Stephen	Lane	FKI Switchgear	UK	
Member	Bangwook	Lee	Hanyang University	South Korea	
Member	Brian	Lester	Australia Standards	Australia	excused
Member	Chris	Lettow	S&C Electric Company	USA	X
Member	Wangpei	Li	Eaton	USA	X
Member	Sachin	Puranik	Hubbell Power Systems	USA	
Member	Larry	Putman	Powell Electrical Systems Inc.	USA	Excused
Member	Timothy	Royster	Dominion Virginia Power	USA	X
Member	Christian	Sasse	Tavrida Electric North America Inc	Canada	
Member	Andy	Seccombe	Schneider Electric	Australia	excused
Member	Robert	Smith	Eaton Corporation	USA	X
Member	Francois	Soulard	Hydro-Quebec	Canada	X
Member	Tom	Stefanski	Powertech Labs Inc	Canada	X

Member	James	Swank	Cooper Power Systems	USA	X
Member	Nenad	Uzelac	G&W Electric	USA	X
Member	William	Walter	We-Energies	USA	X
Guest	John Paul	Adigwu	Southern California Edison	USA	X
Guest	Jean-Marc	Biasse	Schneider Electric	France	X
Guest	Mark	Danna	Duke Energy	USA	X
Guest	Anil	Dhawan	ComEd	USA	X
Guest	Peter	Glaesman	Reuel, Inc.	USA	X
Guest	Travis	Johnson	Xcel Energy	USA	X
Guest	Brendan	Kirkpatrick	Southern California Edison	USA	X
Guest	Kenneth	Lee	Thomas & Betts Corporation	USA	X
Guest	Vincent	Marec	G&W Electric Company	USA	X
Guest	Donald	Martin	G&W Electric Co.	USA	X
Guest	Nicolas	Nakamura	G&W Electric	USA	X
Guest	Ian	Rokser	Eaton Corp	USA	X
Guest	Ben	Rosenkrans	Eaton Corporation	USA	X
Guest	Joseph	Smith	FortisAlberta	Canada	X
Guest	Karla	Trost	G&W Electric	USA	X