

**Chair:** Dave 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 2nd meeting on April 30, 2013 in Galveston, Texas, USA in conjunction with the IEEE Switchgear meetings. Convener David Stone opened the meeting at 8:00 AM. Ed Jankowich acted as secretary for the meeting.

### 2. Roster Check:

Introductions were made. Attendance included 21 members of the Dual Logo Maintenance Team (DLMT). Six members of the DLMT were absent or excused. Refer to Annex A for the attendance list.

### 3. Previous Meeting Minutes

The agenda was reviewed, followed by a review of the meeting minutes of the C37.60 Arnhem meeting (from January 2013), both of which were approved.

### 4. Project Status & Timeline

Edition 2 of the standard was published in September 2012. However, IEC SC17A set stability date of 2015 and a very aggressive timeline for this project with the first CD due by October 2013 and the CDV by October 2014.

### 5. 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.
- **IEC comments:** Fourteen of the 171 comments from the IEC CDV ballot in the previous revision project were “held for next revision”. These comments were discussed at the January DLMT meeting in Arnhem; the list of 171 comments was pared down to 35 comments for consideration in the current project. The Chairman proposed that the scope for this project be limited to the review of the 35 comments although this would not preclude DLMT members or balloters from providing comments in addition to the 35 unresolved responses.
- **Contributions to address IEC comments:** Chairman chose following topics to address during the meeting. The contributions were made and discussion took place.
  - 1) First phase to clear factor, kpp: Harm Bannink and Nenad Uzelac presented the technical argument for adding a test requirement for  $kpp = 1.3$  as is being proposed for the IEC Circuit Breaker standard IEC 62271-100. The DLMT concluded that further review was necessary determine if the field experience justified this additional test.

- 2) Mechanical and extreme temp. testing: Chris Lettow and Nenad Uzelac presented a proposal to modify the mechanical testing protocol including a high and low temperature cycle test duty. The proposal will be refined for addition to the first revision draft.
  - 3) Harmonization of the test current levels for line and cable charging was reviewed. C. Heinrich and C. Lettow will draft a comment on this proposal.
  - 4) Clarification of the pass/fail criteria for delayed re-strikes in fault current interruption operations: C. Lettow, K. Smith and A. Bonner will propose new wording to define the acceptance/rejection of these events.
  - 5) Harmonization of Specifications for auxiliary and control circuits and Open/Close indication with IEC 62271-1. Andy Seccombe presented a proposal that will be reviewed by the Chairman and included in the first revision draft.
  - 6) Critical testing: A proposal was prepared by the Chairman in the last revision project but was not taken up after the CDV ballot was approved. The DLMT was asked to review the proposal again for inclusion in the next revision draft.
  - 7) Contact resistance test protocol: The IEC committee has developed a test protocol for taking contact resistance of the main circuit including proposed acceptance criteria. Once the proposal is finalized in IEC, the Chairman will include it in the next revision draft.
  - 8) Simulated surge arrester operation test: A. Bonner reported on the contents of a study for EPRI. After discussion it was a consensus of the Members that the existing criterion of 6 kA is sufficient for this test. However, the Chairman and A. Bonner will pursue a review of other details of the test protocol.
  - 9) Normative reference to both IEEE C37.100.1 (Common Requirements) and IEC 62271-1 (Common Specifications): A proposal to remove the IEEE standard from the references was discussed and rejected by the DLMT.
  - 10) Removing Fault Interrupter from the C37.60: A suggestion was made to remove the fault interrupter as part of the existing standard. The concern from IEC Members is they do not use or recognize a fault interrupter and, as used in North America, is not a recloser. The proposal would require that IEEE develop a new stand-alone standard for the Fault Interrupter that would not be part of the IEEE/IEC dual logo program.
    - a) By a roll call vote of the members of the DLMT, the motion to remove the fault interrupter from IEEE C37.60/IEC 62271-111 and to request that the RODE committee approve the formation of a new WG to develop a new IEEE standard for the fault interrupter. The motion passed (13 in favor, none opposed).
    - b) A vote of the Members of this WG to remove the fault interrupter from the existing document and submit a recommendation to RODE was unanimously approved by a vote of 13 to 0. (Note, a quorum was available since 13 of 23 Members were present.)
  - 11) Application Section of standard: A proposal to expand the existing annex(s) devoted to the recloser definition and background will be reviewed/drafted by M. Feltis and K. Smith for consideration at the next meeting.
- **Other discussion:**
    - An editorial comment was submitted on behalf of J. Gieger who could not attend this meeting. Note 1 from Table 2 should be moved to Table 3 as well. The current content of Note 1 shown in Table 3 should then be moved over to the content for Note 4 in this table.
    - Internal arc classification is not a requirement of the existing document but is discussed in Clause 9. After some discussion, the topic was tabled and will be reviewed at the next

meeting in San Antonio, TX. In the meantime, the existing and proposed revisions on arc flash classification will be reviewed by A. Bonner.

**6. New Business:**

No new items were presented or discussed.

**7. Next meeting:**

Fall 2013, September 17, San Antonio, TX

**8. Meeting Adjourned @ 4.45 PM**

**Meeting Attendance**

X = present at meeting; (N) new member

Role	First Name	Last Name	Company	Country	04/30/2013
Chair	David	Stone	DTS Technical Services	USA	X
Member	Chris	Ambrose	Federal Pacific	USA	X
Member	Herman	Bannink	KEMA Netherlands	Netherlands	X
Member	Robert	Behl	ABB	USA	Excused
Member	Antone	Bonner	Eaton	USA	X
Member (N)	Eldridge	Byron	Schneider Electric	USA	X
Member	Frank	DeCesaro	Cooper Power Systems	USA	X
Member	Leslie	Falkingham	Vacuum Interrupters Limited	UK	X
Member (N)	Lawrence	Farr	Eaton Electrical	USA	X
Member (N)	Mark	Feltis	Schweitzer Engineering Labs, Inc	USA	X
Member	Jeffrey	Gieger	Thomas & Betts	USA	Absent
Member	William	Glennon	Schweitzer Engineering Labs	USA	X
Member	Christian	Heinrich	Siemens AG	Germany	X
Member	Edward	Jankowich	Jankowich Consulting LLC	USA	X
Member	Stephen	Lane	Hawker Siddeley Switchgear	UK	Absent
Member	Chris	Lettow	S&C Electric Company	USA	X
Member	Steven	Meiners	GE	USA	Excused
Member	Sachin	Puranik	Hubbell Power Systems	USA	Absent
Member	Christian	Sasse	Tavrida Electric North America Inc	Canada	X
Member	Andy	Seccombe	Schneider Electric	Australia	X
Member	Robert	Smith	Eaton Corporation	USA	X
Member	Francois	Soulard	Hydro-Quebec	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
Corres Member	Edgar	Dullni	ABB	Germany	X
Corres Member	Jan	Zawadzki	None	Canada	Absent
Guest	Peter	Agliata	Hubbell Power Systems	USA	X
Guest	Katrin	Baeuml	Schneider Electric	Germany	X
Guest	Ganesh	Balasubramanian	Eaton Corporation	USA	X
Guest	Jerry	Baskin	Federal Pacific	USA	X
Guest	Christopher	Borck	Cooper Power Systems	USA	X
Guest	Samuel	Chang	Pacific Gas & Electric Co	USA	X
Guest	Larry	Davis	Reuel Inc	USA	X
Guest	Jonathan	Deverick	Dominion Power	USA	X
Guest	Paul	Found	BC Hydro	Canada	X
Guest	Peter	Glaesman	Reuel, Inc.	USA	X
Guest	Reid	Herzog	OG&E	USA	X
Guest	Harold	Hirz	Thomas and Betts	USA	X

Guest	Brendan	Kirkpatrick	Southern California Edison	USA	X
Guest	Wangpei	Li	Eaton	USA	X
Guest	Donald	Martin	G&W Electric Co.	USA	X
Guest	Neil	McCord	Southern States	USA	X
Guest	Joachim	Oemisch	Siemens AG	Germany	X
Guest	Larry	Putman	Powell Electrical Systems Inc.	USA	X
Guest	Timothy	Royster	Dominion Virginia Power	USA	X
Guest	Erin	Spiewak	IEEE	USA	X
Guest	Andrew	Swisher	Southern California Edison	USA	X

Submitted by:

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

May 16, 2013