C37.62 – Fault Interrupters

October 7, 2019 - San Diego, CA



Chair: Antone Bonner

Acting Secretary: Karla Trost

Meeting Minutes

1. Call to order and introduction:

Call to order at 8:02 AM. Introductions were made and the attendance list was sent around.

2. Roster Check:

Attendance included 14 Working Group members and 16 guests. Refer to the Annex for the attendance list. The number of WG members is 22. A quorum was present.

3. Previous Meeting Minutes:

Francois moved, Karla seconded. Minutes approved.

4. Meeting Highlights:

- The IEEE slides on patent disclosure and prohibition of commercial discussions were displayed and discussed. No issues were raised.
- The following work was completed over the summer to create Draft 7.1
 - Editorial corrections text formatting, normative references, and bibliography
 - Normative References verified
 - Bibliography expanded and verified
 - Annexes expanded
 - Resolution of remaining technical issues (all but 13)
- Review of the proposed text for the document introduction. No comments were made regarding the proposed document.
- The Symmetrical interrupting current test circuit diagram had not been brought over from C37.60-2012 in the original C37.62 draft. The WG was not aware/ did not remember why. The plan is to re-insert it into the document.
- Line and Cable Charging: Discussion of items from C37.100.2 that could be included in C37.62.
 - Discussion adding on Upper and Lower bounds to Zsource
 - Ian made the motion to "Bring the Source Impedance specification from 37.60-2018 into 37.62." It was seconded, Discussion,
 - Approved: 11, Opposed: 0, No Abstentions Passed
 - TRV requirements for the test circuit
 - Ian made a motion "Carry over the limits of the TRV of the supply circuit from C37.60-2018 to 37.62."
 - David Beseda seconded, Discussion
 - o Approved: 11, Opposed: 0, No Abstentions Passed

Preconditioning of the FI before the charging current test

- Discussion on if a change is necessary. It was agreed that no changes would be made to C37.62
- Statement that NSDD are allowed
 - David B made a motion "Put the language about NSDDs from 37.60-2018 from section 7.112.1 into section 7.112.1 (line 1552) of 37.62."
 - · Anil seconded, Discussion: no comments
 - Approved: 11, Opposed: 0, Abstention: 1 Passed
- Line Charging and Cable Charging current test Capacitive Switching test circuit grounding
 - Discussion was on if the diagram needs to be changed.
 - 37.60-2012 and 37.60-2018 both show the neutral of the test circuit source being solidly grounded.
 - Current version in Draft D7 shows the test circuit grounded. However, the normative text of clauses 7.101.3.1 and 7.101.3.2 state that the ungrounded system is the preferred rating and the neutral should be ungrounded or grounded through a high ohmic value.
 - Option: The figure be linked to the clauses, i.e. reference the clauses
 - Option: Show the figure with a dash line between the neutral and ground and reference the paragraphs.
 - Question: Should the C₀ ground be solid or dashed?
 - No decisions made Antone will resolve through further discussion with lab personnel.
- Mechanical Duty Test (clause 7.109.2)
 - After a discussion, Ian made a motion to "Add the following modified statements from C37.60-2018 to C37.62. 'A minimum of 1800 cycles shall be performed by automatic operation of the FI control. The automatic opening shall be initiated by a simulated fault current through one phase of the FI exercising the normal current sensing and control functions of the FI. Resetting the device to the closed position after each operating duty shall be considered part of the test.' " Was seconded by Travis. No further discussion.
 - o Approved: 10, Opposed: 1, Abstention: 1 Failed
 - Travis made a motion to use the suggested text but change the phrase "...shall be initiated by a simulated fault current through one phase of the FI..." to "...shall be initiated by a current simulating a fault through one phase of the FI...".
 - lan seconded
 - Approved: 11, Opposed: 1, Abstention: 1 Passed
- Proposed Tolerance Table (Annex E): No objections to using the proposed table.
- Normative References: No objections to the proposal to eliminate the three presented.
- Discussion on Table 9 proposal (comments that the table in the ballot document was not clear)
 - Editorial suggestion: Merge 5/6/7, 9/10/11, and 13/14/15 to all say "Number of Unit Operations" and then O/CO/Total as subheadings. This was accepted.
 - Discussion of T100 current range, 90-100%: six solutions were proposed but the WG meeting ended without a resolution. On-line polling or teleconference will be used to determine the WG's preference.

5. New Business;

None.

6. Next meeting:

Spring 2020: Peppermill Resort, Reno, NV, May 3 - 7, 2020

7. Adjournment

Meeting was adjourned at 12:05 PM.

Annex: Member Attendance

Role	First Name	Last Name	Affiliation
Chair	Antone	Bonner	retired
Member	Francois	Soulard	Hydro-Quebec
Member	Karla	Trost	G&W Electric
Guest	Mark	Feltis	Schweitzer Engineering Labs
Member	David	Beseda	S&C Electric
Member	Anil	Dhawan	ComEd
Member	Christopher	Morton	Powertech Labs
Member	Donald	Martin	G&W Electric
Guest	Kennedy	Darko	G&W Electric
Guest	Harry	Hirz	G&W Electric
Member	Paul	Found	BC Hydro
Member	Travis	Johnson	XCEL Energy
Member	lan	Rokser	Eaton
Member	Mohit	Chhabra, Ph.D.	
Guest	Srikumt	Verkatesh	Schweitzer Engineering Labs
Guest	Jim	Ruebensam	S&C Electric
Guest	Robert	Hanna	ABB
Guest	Brian	Gerzeny	Powell
Guest	Stephen	Cary	Eaton
Member	Brendan	Kirkpatrick	SCE
Guest	Stephen	Pell	Seimens
Guest	Jacob	Midkiff	Dominion Energy
Guest	Dan	Busilan	Dominion Energy
Guest	Nadia	Elkhattabi	Hydro-Quebec
Guest	Sterlin	Cochran	Oak + Shield LLC
Guest	Caryn	Riley	Georgia Tech/NEETRAC
Guest	Hank	Ballard	Hubbell Power Systems
Guest	Robert	Wolf	Hubbell Power Systems
Member	Peter	Agliata	Hubbell Power Systems
Member	Harm	Bannink	KEMA Netherlands

Note: Nenad Uzlec was excused.

Submitted by:

Name: Antone Bonner Date: October 16, 2019