

Chair: Antone Bonner

Secretary: Frank DeCesaro

Meeting Minutes

1. Call to order and introduction:

- Call for patent claims were made and there were no claims raised.
- Meeting was called to order at 1:35 PM
 - Members introduced themselves during a roll call.
 - 14 Members and 15 guests were attending. Quorum has been met.

2. Approval of last Fall meeting minutes and this meeting's Agenda

- Minutes have been approved after the typographical error made.

3. Meeting Highlights:

- Changes made to draft
 - The Table of Contents template formatting issues were resolved, and it was updated. This included changing the clause number in Annex F from "J" to "F".
 - Significant change made to the numbering scheme
 - Our standard utilizes the common clauses C37.100.1 as the recloser standard C37.60 did. C37.60 accomplished this by numbering all its clauses the same as the sections in C37.100.1. Any additional clauses not contained in C37.100.1 were numbered sequentially from clause 101 to make it clear these are not part of C37.100.1
 - Our numbering with the skipping of numbering to 101 in different sections did not work with the IEEE template. Since it did not conform to IEEE numbering of clauses we had to revert back to sequential numbering. As an example the capacitor current switching clause was 7.101 in draft 7. We had to change that to the next number in sequence which was 7.15.

4. Work left to do

- Resolution of 3 technical issues
- Draft 7.21 distribution
- Resolution of 3 technical issues
- Draft 7.1 distributed to WG for review
- Draft 7.1 recirculation ballot
- Resolution of comments from recirculation ballot
- Submittal to RevCom
- Approval by RevCom

5. Remaining issues

- Changes in text for an issue regarding T100 testing and Table 9. The chair had emailed the document “Mod req to change T100 current range.doc” to the working group prior to today’s meeting. This document was also displayed and discussed.
 - This issue was brought up at the end of the fall 2019 meeting.
 - T100 has a 90% to 100% range in interrupting current in present draft. This is because the old standard had to cover recloser multi-shot sequences which, for laboratories with motor generators, can burden the generators to causing current to significantly decay.

Multi-shot sequences are not needed for fault interrupter since they do not reclose. Therefore question was raised whether the less than 100% tolerance should remain.

- Since the 2019 Fall meeting the Working group ballot looked at, and voted on, (6) options. The initial ballot resulted in a two way tie. A second working group ballot was then performed with only these two options. The final decision was that the range is to 100% with -0% to +5% tolerance. This requires changes to the text and table 9 which defines the duties.
 - A question was raised today whether the requirement for 100% applies to the beginning and end of the operation or only for the end?

Discussion resulted in the agreement that the 100% minimum applies to the last cycle or two of the operation.

- The working group discussed the impact of this change to the following clauses as discussed in the file “Mod req to change T100 current range.doc”:

- 7.103.3 Verification of the rated symmetrical interrupting current
- 7.103.4.1 Test conditions
- 7.103.4.2 Test Procedures

It was agreed that the requirements that call for “at least two openings at the symmetrical component of the current at not less than rated symmetrical interrupting current” can be deleted since all T100 openings must be at 100% rated symmetrical current. It may also apply to the peak asymmetrical currents.

For 7.103.4.2 Test procedure, the modified text should continue to require “A minimum of 33%” of the operations to be CO and the requirement for the maximum offset on at least one of the CO will have the maximum peak asymmetrical current should be reinserted from C37.60-2012.

Remove the added requirement that 25% of all opening ops (openings other than CO) are to be timed for maximum peak offset.

The chairman will modify the document and submit it to the working group members as an email ballot within the next week or two.

- 6.101 design requirements for tanks
 - The chair displayed the file “Enclosure construction comparison of C37.62, C57.12.28 and .29, C37 74.doc” which had been emailed to the working group prior to the meeting.

- It was commented that at Hydro-Quebec these devices on padmounts are essential to place in vaults, centered. Switchgear has issues with the C57.12.28 standard. If we refer to these now the reference will be with us for years. If we don't reference now, the new version that we are working on will not be available for a few years. It was suggested that if we have issues, refer to them and take exception on the parts that concern us.

The chair stated that he did not see anything in C57.12.29 and C57.12.28 on this. A comment was made that we do reference C57.12.28 and C57.12.29 for the enclosure. Where we reference this, it is a tank for a submersible or dry vault.

There is C57.12.32 for submersible standard now that may refer to this since it is in an enclosure not facing the public. The chair pointed out that C57.12.28 and C57.12.29 are adequate for paint. The question was asked if we talking about the switchgear tank or the enclosure. We find padmount equipment with the switchgear tanks in it. The chair asked the manufacturers on how they answer it. The comment was made that if we look at what we did in C37.74 it was critical to add information that was in addition of C57.12.28 and C57.12.29. It is not thought that C57.12.32 is recommended because we have removed ourselves from that standard. We should bring some of the information in since C37.75 is not out yet.

- The chair will draft this and bring this information for C37.74 into C37.62 and present to the working group.

6. Project Timeline

- We did not have a discussion on the project timeline since we had an internet connection issue with the chair at the end of the meeting. The chair will make a post meeting note into the minutes when they are published.
- Timeline
 - Finalize three technical issues with working group
 - WG review of D7.1 May 12-26, 2020
 - Recirc ballot Draft 7.1 to IEEE May 29, 2020
 - recirc ballot closes (4 week ballot) Jul 1, 2020
 - Ballot comments sent to WG Jul 8, 2020
 - Final resolution of comments Jul 22, 2020
 - Submit to RevCom Aug 14, 2020
 - Approved by RevCom Sep 22, 2020

7. Adjournment

Annex: Meeting Attendance

Role	First Name	Last Name	Company	5/4/2020
Chair	Antone	Bonner	PAS Consulting	X
Guest	Edwin	Almeida	Southern California Edison	X
Guest	Christopher	Borck	Eaton's Power Systems Division	X
Guest	Sterlin	Cochran	Oak & Shield LLC	X
Guest	Kennedy	Darko	G&W Electric Co	X
Guest	Brian	Gerzeny	Powell Electrical Systems Inc	X
Guest	Peter	Glaesman	PCORE Electric Company, Inc.	X
Guest	Harold	Hirz	G&W	X
Guest	Jacob	Midkiff	Dominion Energy	X
Guest	Stephen	Pell	Siemens	X
Guest	Caryn	Riley	Georgia Tech/NEETRAC	X
Guest	Victor	Savulyak	DNV GL KEMA Laboratory	X
Guest	Jon	Spencer	Utility Solutions	X
Guest	Srikant	Venkatesh	Schweitzer Engineering Laboratories	X
Guest	William	Walter	We-Energies	X
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	X
Member	Herman	Bannink	KEMA Netherlands	X
Member	David	Beseda	S&C Electric Co.	X
Member	Nenad	Uzelac	G&W Electric	X
Member	Paul	Found	BC Hydro	X
Member	Jeffrey	Gieger	Thomas & Betts	X
Member	Brendan	Kirkpatrick	Southern California Edison	X
Member	Wangpei	Li	Eaton	X
Member	Donald	Martin	G&W Electric Co.	X
Member	Christopher	Morton	Powertech Labs Inc.	X
Member	Ian	Rokser	Eaton Corp	X
Member	Francois	Soulard	Hydro-Quebec	X
Member	Karla	Trost	G&W Electric	X
Secretary	Frank	DeCesaro	Eaton's Power Systems Division	X

Submitted by:

Name: Antone Bonner, C37.62 Chair

Date: May 6, 2020