

Minutes of Meeting

Working Group C37.12.1 – Guide for AC High-Voltage Circuit Breaker Instruction Manual Content

Location: Omni Hotel Conference Center; Oklahoma, OK
Date: Monday October 14th, 2024 (08:00-9:45 CDT)
Quorum: Membership Count: 20 Members Present: 15

Agenda

Samuel Zaharko w/MEPPI called the meeting to order and presented the agenda.

Introduction of Members and Guests

51 Total in Attendance

15 of 20 members present

See attached attendance sheet at end of report

IEEE Copyright Policy and Call for Patents

Patent and copyright policy presented. No Patent claims identified.

The chairman presented the approved PAR and the scope of work to be done. Among the pre-named tasks are to check and revise any and all normative references used in the document, include circuit switchers where applicable, and restore the ANSI logo/affiliation for the document.

The chairman presented the minutes from the April 2024 meeting and asked for approval.

Motion by: Todd Irwin 2nd by: Dave Mitchel Approved unanimously by consent

The chairman informed the working group that a discussion with the leadership of the HVCB committee had resulted in a decision not to revise the current C37.12.1 PAR for immediate pursuit of ANSI affiliation. Therefore, the C37.12.1 working group will continue with the review and revision of the recommended practice as scheduled.

Secretary, Andy Keels, reviewed action items from the April 2024 meeting. Discussion will continue with the chairman of C37.016, Neil McCord, to determine if there are circuit switcher related items that need to be added to this recommended practice.

The chairman reviewed the current published version of C37.12.1-2018 on the big screen with the working group and collected suggestions for areas where attendees thought some revision might be necessary.

This new revised language would be intended to guide the end user as to what information they might want to request in the instruction manual.

The working group recommended revising Section 5.5 to include language to differentiate between insulating material and interrupting material.

After the conclusion of the agenda the chairman adjourned the meeting at 08:45 (CDT).

Schedule

Next meeting will be in-person April 6 – 11, 2025 at the Wyndham Grand Bonnet Creek; Orlando, FL
IF a virtual meeting is determined by the Chairman, to be necessary, then a meeting notice will be issued

via the iMeet Central workspace calendar.

Reported by:

Andy Keels – Secretary C37.12.1 WG



Working Group
C37.12.1 IEEE Recommended Practice for
Instruction Manual Content of AC High-Voltage
Circuit Breakers above 1000 V

Chair: Sam Zaharko
Secretary: Andy Keels

Agenda

- **Call to Order**
- **Introduction of Attendees**
- **Review of Patent and Copyright slides**
 - **Call for patents**
- **Approval of Minutes of Last Meeting**
- **Review Proposed Text**
- **Future Meetings**
- **Adjournment**

Participants Have a Duty to Inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

Early identification of holders of potential Essential Patent Claims is encouraged

Other Guidelines for IEEE Working Group Meetings

- All IEEE SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
 - Don't discuss the interpretation, validity, or essentiality of patents/patent claims.
 - Don't discuss specific license rates, terms, or conditions.
 - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
 - Technical considerations remain the primary focus.
 - Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
 - Don't discuss the status or substance of ongoing or threatened litigation.
 - Don't be silent if inappropriate topics are discussed. Formally object to the discussion immediately.

For more details, see *IEEE SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at <http://standards.ieee.org/develop/policies/antitrust.pdf>

Patent-Related Information

The patent policy and the procedures used to execute that policy are documented in the:

- ***IEEE SA Standards Board Bylaws***
(<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>)
- ***IEEE SA Standards Board Operations Manual***
(<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>)

Material about the patent policy is available at
<http://standards.ieee.org/about/sasb/patcom/materials.html>

**If you have questions, contact the IEEE SA
Standards Board Patent Committee
Administrator at patcom@ieee.org**

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IEEE SA Copyright Policy Resources

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual
 - IEEE SA Copyright Policy, see
 - Clause 7 of the IEEE SA Standards Board Bylaws
<https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7>
 - Clause 6.1 of the IEEE SA Standards Board Operations Manual
<https://standards.ieee.org/about/policies/opman/sect6.html>

- IEEE SA Copyright Permission
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip>

- IEEE SA Copyright FAQs
 - <https://standards.ieee.org/faqs/copyrights/>

- IEEE SA Best Practices for IEEE Standards Development
http://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/best_practices_for_ieee_standards_development_051215.pdf

- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)
 - <https://standards.ieee.org/about/policies/opman/sect6.html>

Approval of Minutes

Minutes of Meeting

Working Group C37.12.1 – Guide for AC High-Voltage Circuit Breaker Instruction Manual Content

Location: Westin Beach Resort, Ft. Lauderdale, FL
Date: Wednesday April 3rd, 2023 (13:30-15:00 EDT)
Quorum: Membership Count: NA Members Present: NA

Agenda

Samuel Zaharko w/MEPPI called the meeting to order and presented the agenda.

Introduction of Members and Guests

23 Total in Attendance

See attached attendance sheet at end of report

This was the first meeting of the new working group. Attendees were asked to indicate on the sign-in sheet their interest in becoming voting members of the working group.

Approval of Minutes

IEEE Copyright Policy and Call for Patents

Patent and copyright policy presented. No Patent claims identified.

The chairman presented the approved PAR and the scope of work to be done. Among the pre-named tasks are to check and revise any and all normative references used in the document, include circuit switchers where applicable, and restore the ANSI logo/affiliation for the document.

Todd Irwin offered and submitted some language that was used in the C37.10 HVCB failure investigation recommended practice document to demonstrate how to include circuit switchers in the introduction and scope sections.

The working group will extend an invitation to Neil McCord, chairman of C37.016 to join the working group for input on any language specific to circuit switchers that might need to be added.

Keith Flowers and Jennifer Santulli were asked about if the PAR request that was submitted to IEEE included a request for ANSI logo affiliation. Initially it appeared to be then later it appears that it might not be. This could require the working group to have to request a revision to the PAR before beginning any work. This will be an item for discussion at the next meeting.

The chairman reviewed the current published version of C37.12.1-2018 on the big screen with the working group and collected suggestions for areas where attendees thought some revision might be necessary. The working group mutually agreed the existing document was written for vacuum and SF6 gas insulated circuit breakers, and that additional attention needed to be given to revise the document's language regarding potential new insulating and interrupting mediums and materials. This new revised language would be intended to guide the end user as to what information they might want to request in the instruction manual.

The working group agreed unanimously that Sections 5.2 & 5.3 should be replaced with a simple statement to the effect that the instruction manual should include all the data provided on the equipment nameplate as described in C37.04 and C37.016. The working group does not want the document to be confused with a requirement for the manufacturer to provide specific data on the nameplate. Andy Keels (kEElectric

Engineering) and Mike Crawford (MEPPI) agreed to meet separately from the working group to reword Sections 5.1, 5.2, 5.3, 5.4 to indicate what equipment data should be in the instruction manual versus what data from the nameplate should be included in the instruction manual.

The working group recommended revising Section 5.5 to include language to differentiate between insulating material and interrupting material. Then revising Section 5.5 to include parameters that should be monitored for alternative insulating and interrupting mediums. Sam Zaharko (MEPPI), Todd Irwin (GE), and Mike Crawford (MEPPI) volunteered to submit language for revising Section 5.5.

Andy Keels (kEElectric Engineering) volunteered to propose text revising Section 4.4 to include recommendations for lifting or moving the equipment.

Todd Irwin commented that C37.016 should be included in the list of normative references.

After the conclusion of the agenda the chairman adjourned the meeting at 15:00 (EDT).

Schedule

Next meeting will be in-person October 13-17, 2024 at the Omni Hotel, Oklahoma City, OK. If a virtual meeting is determined by the Chairman, to be necessary, then a meeting notice will be issued via the iMeet Central workspace calendar.

Reported by:

Andy Keels – Secretary C37.12.1 WG

Proposed Changes Discussion

4 1. Overview

5 1.1 Scope

6 This recommended practice is intended to identify, organize and summarize information about high-voltage
7 circuit breakers provided by the manufacturer that knowledgeable users will find useful for the receipt,
8 installation, commissioning, operation and maintenance, and decommissioning of ac high-voltage circuit
9 breakers above 1000 V. This recommended practice recommends categories and an arrangement for the
10 presentation of information in circuit breaker instruction manuals.

11 In this recommended practice, the term Circuit Breaker is a generic term which may include AC High
12 Voltage Circuit Breakers and Circuit Switchers

Meeting Schedule (subject to change)

■ Future Meetings

- Oct '24 – In person meeting at Fall 2024 PES Meeting in Oklahoma City
- March '25 – Virtual meeting in preparation for Spring 2025 Meeting
- April '25 – In person meeting at Spring 2025 PES Meeting in Orlando
- Oct '25 – In person meeting at Fall 2025 PES Meeting in Reno

Adjourn

NPEC WGC37.21.1 Meeting Sign-In Sheet [10/14/2024]

By choosing to attend and sign in to this meeting, you acknowledge and agree that your personal data will be documented for IEEE standards development or coordination purposes to comply with policies and procedures, legal and accreditation requirements, and evaluation of patent claims by patent offices. IEEE must capture your personal data for these purposes, and will provide information about activities related to standards development groups in which you participate. IEEE standards development and coordination participation is documented through various methods, e.g., rosters, submission documents, email reflectors, records of meeting attendance, responses to ballots, publicly available participation lists, and declaration of affiliations. See the IEEE Privacy Policy at <https://www.ieee.org/security-privacy.html>.

		Name	Employer	eMail Address (if updated or not previously provided)	Member Request?	Sign-in
1		Sam Zaharko (Chair)	Mitsubishi Electric		Member	Y
2		Andy Keels (Vice Chair/Secretary)	kEElectric Engineering, PLLC		Member	Y
3		Issac Pounders	Meiden America Switchgear		Member	Y
4		Mike Skidmore	AEP		Member	Y
5		Todd Irwin	GE Grid Solutions		Member	Y
6		Steve May	Southern Company		Member	Y
7		David Mitchell	Southern States		Member	Y
8		Jennifer Hunter	Mitsubishi Electric		Member	Y
9		Chris Jarnigan	Southern Company		Member	Y
10		Dan Benedict	PPL		Member	Y
11		Rich York	Mitsubishi Electric		Member	Y
12		Tony Ricciuti	Eaton		Member	Y
13		Pedro Castillo	ABB		Member	Y
14		Fernando Ordein	Dominion		Member	Y
15		Jeff Scott	Ameren		Member	Y
16		Vincent Marshall	Southern Company		Guest	Y
17		Shah Jamal	Avangrid		Guest	Y
18		Lalit Patil	Eaton		Guest	Y
19		Mina Youssef	Eaton		Guest	Y
20		Jason Cunningham	Southern States		Guest	Y
21		Dwight Krause	Black and Veatch		Guest	Y
22		Vernon Toups	Siemens		Guest	Y
23		Joe Stemmerich	Trager Engineering Corp		Guest	Y
24		Michael Marynychak	Hico America		Guest	Y
25		Adam Brooks	Duke Energy		Guest*	Y
26		Don Steigerwalt	Duke Energy		Guest*	Y
27		Andrew Fernandes	Trager Engineering Corp		Guest	Y
28		Henning Milnikel	Siemens AG		Guest	Y
29		Robert Hanna	JST Power		Guest	Y
30		Gary Meekings	Southern States		Guest	Y
31		Kathryn Sakarapanee	Schneider Electric		Guest	Y
32		Mike Nolte	Kiewit		Guest	Y
33		Jason Jeter	Mersen		Guest	Y
34		Ben Sax	Nashville Electric Service		Guest	Y
35		Anthony Natale	Hico America		Guest	Y
36		Casey Weeks	Siemens Energy		Guest	Y
37		Eduardo A. Henriet Hdz	Siemens Energy		Guest	Y
38		Eloy Banda	Siemens Energy		Guest	Y
39		Jesus Avila	ABB Mexico		Guest	Y
40		Leo Lopez	WKA		Guest	Y
41		Sergio Mironda	ABB Mexico		Guest	Y
42		Sergey Ragozhkin	Tavrida Electric Germany		Guest	Y
43		Jeff Door	H-J Family of Companies		Guest	Y
44		Mike Orosz	CBT&S, Myers Power Products		Guest	Y
45		Conrad Pecile	Myers Power Products		Guest	Y
46		Dan Wolfe	MEPPI		Guest	Y
47		Sanket Bolar	ONCOR		Guest	Y
48		Paul Shiller	First Power Group LLC		Guest	Y
49		Henry de Villiers	Arizona Public Services		Guest	Y
50		Lucas Collette	DLC		Guest	Y

*Expressed interest in becoming a member