

RODE C37.75 Switchgear Enclosure Integrity Working Group Minutes

October 16th, 2018 – Kansas City, MO

Chair: Anil Dhawan

Vice Chair: Karla Trost

Meeting Agenda

- 1. Call to Order** Anil Dhawan
The meeting was called to order at 2:02PM.
- 2. 6.3.2 Call for Patents** Anil Dhawan
Information regarding IEEE's Patent Policy provided and slides 1 through 4 were shown. The chair provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard

No responses were given.
- 3. Introduction of Members and Guests**
Self-introductions were made by the attendees.
- 4. Attendance and Quorum Check**
Sign-in sheets were circulated. Quorum was verified.
There were 43 people present, 11 of which were members.
One member was removed from the roster as they are no longer with their company.
Two people requested membership. They met the attendance requirements and were granted membership following the meeting.
- 5. Approval of Agenda** Anil Dhawan
Karla explained the changes to the agenda since it was sent out.
No changes to the agenda were requested.
- 6. Approval of Previous meeting minutes** Anil Dhawan
<http://www.ewh.ieee.org/soc/pes/switchgear/minutes/2018-1/S18RODEa7REV0.pdf>
No comments on the minutes. Francois made a motion to approve the minutes, Paul seconded.
The minutes were approved as written.

7. Review of Action Items

1) Action Item: David will draft a potential statement (regarding shipment requirements) for review at the next meeting.

a) **C37.74:**

10. Shipping requirements

The DSG shall be completely assembled. Unless otherwise agreed to by the manufacturer and user, the DSG shall include the correct amount of insulating/interrupting medium considering appropriate correction for temperature.

Instructions and checklists for inspection, installation, and operation of the DSG shall be provided.

DSG shall be properly packaged and braced to prevent damage during shipment.

b) **C37.20 series**, in case switchgear wanted to reference the enclosure standard. There were a number of shipping/handling requirements (i.e. section 9 of C37.20.3), but most were simply guidance for the end user.

c) **Proposed Wording:**

The enclosure must be designed such that, when assembled and packaged for final shipment from the switchgear manufacturer to the end user, it must comply with any shipping and/or handling requirements in the relevant product standard.

d) Discussion of Results

- i) A question was raised about controls with batteries and proper shipping methods. After discussion this was directed to the C37.68 Working Group.
- ii) The proposed wording will be included in the standard draft.

2) Action Item: Karla will create a table showing content source and discuss with IEEE.

a) Table follows:

	C57.12.28	C57.12.29	C57.12.30	C57.12.31	C5.12.32	C37.75 (w/o controls)	C37.75 (w/ controls)
# of Subclauses	43	50	22	19	16	56	84
# of subclauses with copied text						New: 4 28/29: 32 All: 17 w/ add: 3	New: 28 Comb: 3
% of total (estimate)						52/56 ~93%	55/84 ~65%

Options:

- 1) Start the process now to ask IEEE and Transformer committee for copyright approval
- 2) Change the format of C37.75 to “references” – example on next slide.
- 3) Change the work done on C37.75 to a guide and move control work with C37.68 – details on additional slide.

b) Discussion of Results & next steps

- i) Erin explained that the IPR team is concerned that option 1 will make development and content update inconsistent. Therefore, they discourage extracting material.
- ii) Option 2 comments:
 - (1) This may be harder on the user as the apparatus standard will reference C37.75 which will then reference one of the C57.12.XX standards.
 - (2) There is a benefit to a single source – knowing where to go to find all enclosure references versus looking at all of the apparatus standards.
- iii) Option 3 comments:
 - (1) If we incorporate into the product standards we have to realize how much it will increase the size of the enclosure section.
 - (2) A note was made that it could be as simple as referencing C57.12.28-2005 and including 5 new subclauses. It could also be more significant depending on the work by this group.
- iv) The IEEE-SA representative offered an option to re-open discussion with the Transformer committee.
 - (1) History on Switchgear and Transformer committees work on C57.12.28 was provided.
 - (2) There is an option for Switchgear to co-sponsor the standard (after research, Switchgear was a co-sponsor and we are still not satisfied with the suitability of the document.)
 - (3) **Erin will schedule a call with the Transformer committee chair(s)**, Francois, Anil, and Karla to discuss co-sponsoring and starting work now or splitting the C57.12.28 and 29 standards so that switchgear is only covered by C37.75.
- v) In the meantime, **David B, Karla T, Al P, and Anil D will start drafting the switchgear enclosure reference document** (controls will not be included)

8. New Items:

There were no new items.

9. Next Meeting

- o The next working group meeting will take place at the Spring Switchgear Committee Meeting the week of April 28, 2018 in Burlington, VT.

10. Adjournment

The meeting was adjourned at 3:07 PM.

Annex 1: Attendance

Role	First Name	Last Name	Company	10/16/2018
Chair	Anil	Dhawan	ComEd	X
Vice-Chair	Karla	Trost	G&W Electric	X
Member	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)	X
Member	David	Beseda	S&C Electric Co.	X
Member	Antone	Bonner	PAS Consulting	X
Member	Mark	Feltis	Schweitzer Engineering Laboratories, Inc	X
Member	Paul	Found	BC Hydro	X
Member	Ilya	Glinsky	Southern California Edison	X
Member	Travis	Johnson	Xcel Energy	X
Member	Brendan	Kirkpatrick	Southern California Edison	X
Member	Al	Pruitt	The Durham Company	X
Member	Ian	Rokser	Eaton Corp	X
Member	Francois	Soulard	Hydro-Quebec	X
Guest	Peter	Agliata	Hubbell Power Systems	X
Guest	Edwin	Almeida	Southern California Edison	X
Guest	Thomas	Ballard	Hubbell Power Systems	X
Guest	Russell	Boyce	Eaton	X
Guest	Stephen	Cary	ABB	X
Guest	Robert	Cohn	Powercon Corp.	X
Guest	Brad	Connor	Xcel Energy	X
Guest	Kennedy	Darko	G&W Electric Co	X
Guest	Jeffrey	Gieger	Thomas & Betts	X
Guest	Paul	Gingrich	AZZ Switchgear Systems	X
Guest	Harold	Hirz	Thomas and Betts	X
Guest	Rahul	Jain	S&C Electric Company	X
Guest	John	Kaminski	Siemens	X
Guest	Ryan	Kowdley	Pacific Gas & Electric	X
Guest	Bradley	Lewis	AEP	X
Guest	Benson	Lo	Toronto Hydro	X
Guest	Donald	Martin	G&W Electric Co.	X
Guest	Jacob	Midkiff	Dominion Energy	X
Guest	Roberto	Olivares	Siemens	X
Guest	Stephen	Pell	Siemens	X
Guest	Mark	Peterson	Xcel Energy	X
Guest	Larry	Putman	Powell	X
Guest	Anthony	Ricci	FirstEnergy Corp.	X
Guest	Caryn	Riley	Georgia Tech/NEETRAC	X
Guest	Mark	Roberson	AZZ/Calvert	X
Guest	Tim	Rohrer	Exiscan	X

Guest	Timothy	Royster	Dominion Virginia Power	X
Guest	Erin	Spiewak	IEEE	X
Guest	Randy	Ward	Aluma-Form	X
Guest	Robert	Wolf	Hubbell Power Systems, Inc.	X

Annex 2: Presentation

The presentation follows.

C37.75 Working Group Meeting October 16, 2018

Anil Dhawan (chair),
Karla Trost (vice-chair)

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**

Ways to inform IEEE

- Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
- Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Other guidelines for IEEE WG 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 ... do formally object.

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**

Self-Introductions

Agenda

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3. **Introduction of Members and Guests**
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Discussion of Results & next steps

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10. **Adjournment**

Approval of Minutes

<http://www.ewh.ieee.org/soc/pes/switchgear/minutes/2018-1/S18RODEa7REV0.pdf>

Action Item:

Shipping Requirements

- **C37.74:**

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- **Proposed Wording:**

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Action Item:

Content Source/ IEEE Copyright

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# of subclauses with copied text						New: 4 28/29: 32 All: 17 w/ add: 3	New: 28 Comb: 3
% of total (estimate)						52/56 ~93%	55/84 ~65%

General rule of thumb is less than 10% of copied material

Action Item:

Copyright – Next Steps

Options:

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Action Item:

Copyright – Next Steps

Change the format of C37.75 to “references” – **example**

Current Format	Reference Format
<p>4.3.7 Test Repetition These design tests shall be repeated whenever the enclosure design is changed so as to modify performance, or at least every ten years whichever is shorter.</p>	<p>4.3.7 Test Repetition Subclause 4.3.7 of IEEE C57.12.28-2014 shall apply except the duration shall be 10 years.</p>

Will still have a significant # of references and may be questioned by IEEE.

Action Item:

Copyright – Next Steps

Change the work done on C37.75 to a guide and move control work with C37.68 – **details**

- 1) Release a guide for use by RODE working groups with a list of references (similar to reference format of the standard.) This would direct WG for how to appropriately reference the transformer standards.
- 2) Request a PAR change for C37.68 to include control enclosures. (Would have to be voted on by 37.68 WG and RODE.)

Discussion

New Items