

C37.20.7 Guide for Testing Switchgear Rated Up to 52 kV for Internal Arcing Faults

Working Group Meeting Minutes

Meeting Date: Monday, October 11, 2021
Meeting Time: 8:00am – Noon, Central Time
Location: Online Meeting

1. The meeting was called to order by Working Group Chair Dan Hrcir at 8:01 am Central.
2. Dan Hrcir welcomed the group and provided general guidelines for the meeting such as turning off cameras and using the Teams raise hand feature when asking to speak and when voting.
3. Introductions were made of each member and guest. See the end of the document for the list of attendees. The meeting included 45 members and 36 guests. Quorum was verified.
4. Dan Hrcir presented the agenda for review.
 - a. Motion to Approve: Mike Lafond
 - b. Motion Seconded: Eduardo Ramirez
 - c. Outcome: Approved by consent

5. Dan Hrcir reviewed the IEEE-SA Patent Policy with the attendees and allowed time for each person to read the slides provided by IEEE. The website link for the patent policy is provided below.

<https://standards.ieee.org/about/sasb/patcom/materials.html>

6. Dan Hrcir reviewed the IEEE-SA Copyright Policy with the attendees and allowed time for each person to read the slides provided by IEEE. The website link for the copyright policy is provided below.

<https://standards.ieee.org/ipr/copyright-materials.html>

7. Dan Hrcir discussed the previously distributed meeting minutes from the Spring 2021 working group.
 - a. Motion to Approve: Mike Lafond
 - b. Motion Seconded: Marcelo Valdes
 - c. Outcome: Approved by consent

8. New Business

- a. There was general discussion about the possible topic of arc simulation modeling. There may be some interest to consider this as a future topic but was not discussed in detail at this meeting.
- b. The group spent most of the time working on revisions to the standard. Details of disposition for each submitted comment were tracked in the comment tracking spreadsheet.

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- c. Dan Hrcir had collected comments submitted before the meeting for C37.20.7. The comments were placed into one spreadsheet for tracking work based on those comments. The group used that spreadsheet to guide the discussions.
 - d. The working group reviewed both technical and editorial recommended changes to the document. Action on proposed changes recorded in the comment spreadsheet.
 - e. A Task Force was formed with Eldrige Byron (Chair), Michael Wactor, Mina Youssef, and Henning Milnikel to review an IEC document to see how that affects testing based on Henning's comments and provide recommendation concerning language in section by mid-December. The group would look at all three of Henning's comments on related topic.
 - f. There was good discussion concerning location of the vertical burn indicators with their intended location to be where a person would be standing. If equipment is tested while on a pallet, then the burn indicator location would not need to be from floor level but from the base of the equipment. The group considered possibly creating a definition of "floor level" to help define the need. Consider adding simple figures like in some IEC document to help demonstrate points vs just words. A definition could be missed and may be clearer in just the testing section. Consider the wording "flush or slightly below" the equipment base. Floor level can be something different. A Task Force was formed to investigate improved wording for this topic. Members: Tom Hawkins, Michael Wactor (Chair), Garrett Sims, Henning Milnikel, Ted Burse, Ron Hartzel, Paul Barnhart, Eldridge Byron, Mike Lafond. Placement of indicators considering the final mounting of the equipment. The group is to complete their work by mid-December.
 - g. There was discussion concerning how to test equipment (like GIS) where disassembly might have to happen. Refer to Section 5.3.4.1 of the document. A Task Force was formed to develop some proposed wording to address the issue with Garrett Sims (Chair), Eldridge Byron, Michael Wactor, Terry Woodyard, Paul Barnhart, Henning Milnikel, Ted Burse, Edurado Ramirez, Russell Boyce, and Mina Youssef. The group is to complete their work by mid-December.
9. The next working group meeting will be scheduled in late February 2022. The meeting will be a virtual meeting.
 10. The meeting was adjourned by Dan Hrcir at approximately 11:59 am Central.

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Meeting attendees:

Role	First Name	Last Name	Company
Guest	Bill	Avelo *	JST Power Equipment
Guest	Chris	Ambrose	Federal Pacific (Div. of Electro-Mechanical Corp.)
Guest	Roy	Ayers	NES Power
Member	Paul	Barnhart	Underwriters Laboratories
Member	Francis	Beauchemin	Hydro-Quebec
Member	Russell	Boyce	Eaton
Guest	Robert	Burns *	Eaton
Member	Ted	Burse	Powell Industries, Inc
Member	Dan	Busilan	Dominion Energy
Guest	Sudarshan	Byreddy *	Burns & McDonnell
Member	Eldridge	Byron	Schneider Electric
Member	Clint	Carne	Schneider Electric
Member	Robert	Cohn	Powercon Corp.
Guest	Fiori	Coziuc	S&C
Member	Randall	Creach	AZZ Switchgear Systems
Guest	Daniel	Davis *	JST Power Equipment
Guest	Stacey	Davies	Siemens
Member	Federico	Di Michele	CESI S.p.A.
Guest	Jeffrey	Door	The H-J Family of Companies
Guest	Erik	Doroz *	Eaton
Member	Doug	Edwards	Siemens
Member	Michael	Flack	Southern Company Services, Inc.
Member	Sergio	Flores	Schneider Electric Inc. USA
Member	Keith	Flowers	Siemens Industry, Inc.
Member	Christopher	French	Eaton Corporation
Guest	Jack	Geng	Powertech Labs Inc.
Member	Sahadev	Gohil	AZZ Switchgear Systems
Member	Lou	Grahor	Eaton Corporation
Member	Jack	Harley	First Power Group
Member	Ronald	Hartzel	Eaton Corporation
Member	Tom	Hawkins	Siemens Industry, Inc.
Guest	Gary	Haynes	ABB
Member	Jared	Hines	Eaton Corp.
Member	Jason	Hollander	CHA Consulting, Inc.
Chair	Dan	Hrncir	Eaton
Guest	Fang	Huang *	AEP

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Role	First Name	Last Name	Company
Member	John	Kaminski	Siemens
Member	Chad	Kennedy	Schneider Electric
Member	Michael	Lafond	ABB
Guest	Robert	Lau	nVent Hoffman
Guest	Alex	Lizardo-Chochran	JST Power Equipment
Guest	Colby	Lovins	Federal Pacific
Guest	Kevin	McGlown *	JST Power Equipment
Guest	Morgan	McNeal	Xcel Energy
Member	Henning	Milnikel	Siemens
Guest	Ashley	Moran	IEEE Standards Association (IEEE-SA)
Guest	Chris	Morton	Powertech Labs Inc.
Member	Terry	Neighbours	ABB Inc.
Member	Owen	Parks	ABB
Guest	Pathik	Patel	Duke Energy
Guest	Rahul	Pawar	JST Power Equipment
Guest	Mark	Peterson	Xcel Energy
Guest	John	Phouminh	PEPCO Holdings
Guest	Matthew	Polk *	JST Power Equipment
Member	Eduardo	Ramirez Bettoni	Xcel Energy
Guest	Samala Santosh	Reddy	Powell Industries
Member	Tony	Ricciuti	Eaton
Member	Jeffery	Ricker	SCHNEIDER ELECTRIC
Member	Mark	Roberson	AZZ/Calvert
Guest	Richard	Rohr	Powell Industries
Member	Leonel	Santos	Schneider Electric
Member	Todd	Sauve	Rockwell Automation
Guest	Matthew	Siena	Duke Energy
Member	Garett	Sims	Eaton Corp.
Secretary	Paul	Sullivan	DuPont
Member	Donald	Swing	Powell Industries
Guest	Dragan	Tabakovic	Hubbell Power Systems
Member	Chand	Tailor	Eaton Corporation
Guest	Christo	Thomas	Schneider Electric
Guest	Dhirendra	Tiwari	ABB
Guest	Nenad	Uzelec	G&W Electric
Member	Marcelo	Valdes	ABB
Guest	Michael	Wactor	Powell Industries, Inc
Guest	Jonathan	Wear	JST Power Equipment

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Role	First Name	Last Name	Company
Member	Matthew	Westerdale	Bureau of Reclamation
Member	Terrance	Woodyard	Siemens Industry Inc.
Member	Mina	Youssef	Eaton Corporation
Guest	Xin	Zhou	Eaton
Guest	Danish	Zia	UL

* The asterisk indicates meeting attendees that are not registered in 123Signup.