

IEEE Power & Energy Society
Switchgear Committee
C37.20.7 Working Group Report
26-April-2016

The working group met on Tuesday, April 26, 2016 at 8:03AM.

Agenda:

The agenda was previously distributed. Agenda accepted without objection.

Patents: Those registered at the Switchgear Committee meeting in Hilton Head Island, SC were required to acknowledge the IEEE-SA rules on Patents, and therefore, review in this meeting is not required. Nevertheless, the chair reminded participants that anti-competitive issues are never allowed for discussions.

General:

The PAR for this project was approved by the IEEE-SA Standards Board on November 9, 2011, and is valid until December 31, 2017. We will have to submit a request change the scope of the document in the PAR, depending on the results of this meeting.

Members introduced themselves, identified their company and their affiliation. Total attendance was 67 persons. Attendance included 23 working group members (of 31, with 4 absent and 4 excused, plus 44 guests. Attendance is as shown below:

Attendance of working group members was recorded by roll call, to establish that a quorum was present. A quorum was present.

Members / Affiliation	Members / Affiliation	Guests / Affiliation	Guests / Affiliation
C. Ball (A) – S&C	F. Mayle (P) - Technibus	D. Berengueia (P) - Google	T. Neighbors (P) - ABB
P. Barnhart (P) - UL	D. Mazumdar (P) - AZZ	A. Bonner (P) - Eaton	O. Parks (P) - ABB
R. Boyce (P) – Eaton	D. Mohla (E) – DCM Electrical Consulting	C. Carne (P) – Schneider	R. Pawar (P) – ABB
J. Bowen (P) - Aramco	A. Morse (P) – Siemens	M. Claxton (P) - Powell	A. Peterson (P) - ABB
E. Byron (E) - Schneider	D. Moser (P) - ABB	R. Cohn (P) – Powercon	A. Qasem (P) - Bechtel
J. Earl (E) - ABB	T. Olsen (P) - Siemens	E. Dullini (P) – ABB	J. Rizo (P) – Xcel Energy
D. Edwards (P) - Siemens	M Orosz (A) - Schneider	D. Dunne (P) - Schneider	M. Roberson (P) – AZZ
M. Flack (A) – Southern Nuclear	A. Patel (A) - GE	D. Elliott (P) – ABB	I. Rokser (P) - Eaton
K. Flowers (P) - Siemens	C. Schneider (P) - Schneider	S. Flores (P) - Schneider	T. Rohrer (P) - Exiscan
D. Gohil (P) – AZZ	J. Smith (P) – retired	P. Gingrich (P) – AZZ	R. Rohr (P) - Powell
T. Hawkins (P) - Siemens	P. Sullivan (P) - DuPont	L. Grahor (P) – Eaton	A. Rowell (P) – Eaton
A. Jur (P) – Eaton	C. Taylor (P) - Eaton	J. Hidaka (P) – UL	J. Rubenson (P) – S&C
C. Kennedy (P) - Schneider	M. Valdes (E) - GE	J. Hines (P) - Eaton	T. Sauve (P) – Rockwell
M. Lafond (P) - GE	M. Wactor (P) – Powell	D. Hrcir (P) – Eaton	G. Sims (P) - Eaton
D. Lemmerman (P) – Exelon/PECO	R. Warren (P) – DNV GL KEMA	J. Jarque (P) – AZZ	J. Snider (P) – PG&E
	T. Woodyard (P) – Siemens	W. Jung (P) – Siemens	D. Swing (P) - Powell
		J. Kaminski (P) – Siemens	J. Thayalan (P) - Schneider
		R. Lau (P) – Pentair Technical Solutions	J. Webb (P) – ABB
		A. Lizardo (P) - ABB	J. Wen (P) – BC Hydro
		D. Mazumdar (P) - AZZ	E. Wilkie (P) – Eaton
		J. McClelland (P) – Technibus	S. Wilson (P) – Avista Utilities
		R. Najar (P) - Siemens	E. Yee (P) - Eaton

The minutes from the Fall 2015 meeting were approved as distributed by absence of requested changes.

Chair Comments and review of ballot results:

The first ballot for Draft 13 opened March 3 and closed on April 2, 2016. The invitation to join the ballot group had been sent out to 670 persons, and 113 persons joined the ballot group. Ballot results summary is as follows:

Ballot Open Date:	03-Mar-2016
Ballot Close Date:	02-Apr-2016
Type:	Revision
Draft #:	D13
Comments:	685
Must Be Satisfied Comments:	425
RESPONSE RATE	
This ballot has met the 75% returned ballot requirement.	
113	eligible people in this ballot group.
59	affirmative votes
31	total negative votes with comments
31	negative votes with new comments
0	negative votes without comments
4	abstention votes: (Lack of expertise: 1, Lack of time: 1, Other: 2)
94	votes received = 83% returned
4%	abstention
APPROVAL RATE	
The 75% affirmation requirement is not being met.	
59	affirmative votes
31	negative votes with comments
90 votes = 65% affirmative	

Discussion items:

1. Equipment types covered – all types (and Annexes) in D13 are retained. Those items for which some discussion took place are noted.
 - a. Annex G includes outdoor type circuit breakers covered by IEEE C37.04. They remain in the document. Motion to retain passed 18 affirmative, 0 negative, 2 abstain.
 - b. Annex H is for LV MCCs – consensus to retain without objection.
 - c. Annex I for MV Controllers – consensus to retain without objection.
 - d. Annex J for Switchboards – very high number of comments received, regarded as resolvable. P. Barnhart suggested that the switchboard task group resolve the relevant comments and propose revisions to Annex J, without objection. The task group is to include T. Hawkins, M. Lafond, C. Schneider, D. Moser, P. Barnhart will comprise this task group. Consensus to retain without objection.
 - e. Annex K for Metal-Enclosed Bus – high number of comments, including several asking to delete the annex and the equipment from the scope. The opinion is that the test method is not sufficiently definitive. An ME Bus task group will address comments and propose revisions to Annex K, to include P. Barnhart, A. Jur, F. Mayle, J. McClelland, P. Gingrich, C. Tailor.
 - f. Annex L for ME GIS – many comments, including several asking to delete the annex and the equipment from the scope. P. Barnhart moved to retain, and A. Morse seconded. Passed 12 affirmative, 6 negative.
2. It was agreed that the ballot resolution group be empowered to resolve editorial comments without submitting the resolution to the entire group.
3. Ballot comment resolution task group will consist of these persons. It is intended that there be weekly telecons:

M. Wactor	A. Jur	J. Smith
T. Olsen (with RevCom view)	D. Hrcir	M. Lafond
P. Barnhart	C. Tailor	D. Edwards (RevCom view)
A. Morse	T. Woodyard	T. Burse (RevCom view)
C. Schneider	K. Flowers	

4. Applied insulation definition – several comments asking why certain kinds of insulation (e.g., boots, sleeves) were excluded. No consensus for any changes.
5. Discussion of methods of arc initiation or locations for arc initiation. The present document is perhaps not optimal, but it was agreed that it is workable and further specification should be left to a subsequent revision project.

6. Fan-cooled arrangements were discussed. Some of the fan cooling language is incorrect and will be corrected in the next draft, as pointed out in a number of ballot comments.
7. In clause 5.3.4.1, arc energy is taken as $I \times T$. Discussion supported this view, rather than $I^2 \times T$.
8. Indicator mounting racks require metal to hold the indicators, but the rack may be supported on a stand or frame that may be of a material other than metal.
9. Horizontal indicators need to cover approximately 40-50% of the area. The present text omitted this, and D13 would technically require coverage of 100%. The needed text should be added at line 926.
10. On duration limiting devices, we need to correct clearing time to operating time in certain usages.

It is our objective to submit a request to modify the PAR by May 20, and to initiate the second ballot during the summer of 2016. Active Task Groups will report their conclusions on the viability of their annex prior to 20 May 2016. Should any Task Group report their annex cannot be appropriately modified within the timeframe for a re-ballot in July, that equipment will be removed from the PAR and the annex held over for the next revision to the document.

The meeting adjourned at 11:50AM.

Report submitted by:

M. Wactor, WG Chair