

**SWITCHGEAR ASSEMBLIES SUBCOMMITTEE
MINUTES OF THE SPRING 2014 MEETING**

**Disney Contemporary Resort, Orlando, FL USA
May 7, 2014**

The meeting was called to order by Chair, D. Edwards, at 1:30 PM on May 7, 2014 with the introduction of the following members and guests:

Attendance

Members: 30 present, 11 absent (0 excused) – Quorum was met.

Guests: 35

Total: 65

Attendance is recorded at the end of the meeting minutes. Membership and attendance is recorded in the AMS system.

Patents: Those registered for the Switchgear Committee meeting in Orlando had to acknowledge the IEEE-SA rules on Patents, and therefore, review in this meeting is not required. The participants were reminded that anti-competitive issues are never allowed for discussions.

1. Introduction of Members and Guests

Members and guests introduced as recorded above.

2. Approval of Meeting Agenda

Motion to approve by T. Burse, 2nd by A. Morse and was approved.

3. Approval of SA Meeting Minutes

Link: <http://www.ewh.ieee.org/soc/pes/switchgear/minutes/2013-2/F13index.htm>

Minutes (link above) from the fall 2013 meeting from San Antonio, TX were approved.

Motion to approve by A. Morse, 2nd by M. Wactor and was approved.

4. Working Group Status Reports

a. Task Force – SA S/C Common Clauses

T. Burse: No minutes are provided.

T. Burse: Respectively offer his resignation for this task force. K. Flowers and T. Burse have made some effort in collecting definitions but task requires a lot more attention. Agenda includes definitions but this was never in the scope of the original task force.

L. Farr: SA definitions will be handled within the task force for C37.100.1.

D. Edwards: Minutes from Galveston, TX (Spring 2013) meeting had the scope of the task force to focus on common clauses that were not included in C37.100.1 such as paint, wire, etc.

D. Hrncir: Volunteered to lead the SA S/C Common Clauses task force. Current Task Force will comprise of the following members: Chair: D. Hrncir, Members: T. Burse, P. Barnhart, M. Seabrook, A. Jur, L. Farr, D. Elliot, A. Morse, A. Rowell, C. Schneider.

D. Hrncir: Will focus on off line meetings with task force prior to Fall 2014 meeting.

Actions for SA S/C: None

b. C37.20.1 – Standard for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear

T. Burse: Minutes are provided.

T. Burse: Recirculated two drafts since last meeting. Quorum was met. A new draft will be recirculated. WG voted to expand scope definition to include 1000V ac nominal voltage and 3200V dc maximum voltage verbiage. Ballot is targeted upon completion of draft 4 circulation. PAR request change will be submitted within days. Recirculation of draft 4 is expected to be resolved by fall 2014 meeting.

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T. Burse: Motion to expand scope verbiage to include nominal rating of 1000 V ac and maximum rating of 3200V dc, 2nd T. Olsen. Motion passed unanimously.

Actions for SA S/C: None. Chair will report ballot activity to Main Committee.

c. C37.20.2 – Standard for Metal-Clad Switchgear

M. Wactor: Minutes are provided.

Ballot was closed with 413 comments to be resolved. 402 resolved during WG sessions. Teleconference sessions will be set to resolve remaining comments and communicate electronically off line. Ballot resolution targeted by fall 2014. Expecting a recirculation ballot after fall 2014 meeting.

Actions for SA S/C: None

d. C37.20.3 – Standard for Metal-Enclosed Interrupter Switchgear

C. Ball: No minutes are provided.

WG effort is complete and standard is published.

Actions for SA S/C: None. Need to confirm WG has been disbanded.

e. C37.20.6 – 4.76 kV to 38 kV Rated Grounding and Testing Devices Used in Enclosures

T. Olsen: Minutes are provided.

2 rounds of commentary completed. WG focused on one group of comments related to safety labels. A new draft expected to be recirculated within a week. WG is expecting a ballot, via electronic vote, prior to the fall 2014 meeting.

Actions for SA S/C: None. Chair will report ballot activity to Main Committee.

f. C37.20.7 – Guide for Testing Medium-Voltage Metal-Enclosed Switchgear for Internal Arcing Faults

M. Wactor: Minutes are provided.

M. Wactor: 72 participants in attendance. WG has approximately 6 or 7 outstanding issues to be resolved from the last circulation. A task force was created to resolve the initiation wire size. Task force expected to focus on this subject by end of July. WG voted to retain the grounding requirement of the test specimen to the laboratory neutral for arc res testing. This resolved the open item of differing results between arc res testing of ungrounded and grounded test specimens. Peak current requirements of 90% versus perspective current had a proposal to change. P. Barnhart will lead a data collection effort from multiple manufacturers to assist in determining a less arbitrary value. Test duration for low voltage products resolved by vote. WG voted to eliminate the drafted C1 accessibility rated. We expect some additional proposals for a revised C1 accessibility rating in future draft circulations. WG discussed the conversion of field installed equipment to arc res standards. WG group voted to not consider this in current scope. A draft recirculation is targeted for July. A ballot request is forecasted to be initiated after the fall 2014 meeting.

D. Edwards: commends the manufacturer's participation on the data collection for the benefit of the group.

Actions for SA S/C: None

g. C37.20.9 – (Std # and PAR are pending) – Gas Insulated Switchgear Standard 1 kV to 52 kV

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E.R. Byron: Minutes are provided.

E.R. Bryon: 41 participants in attendance. WG defining a scope for the effort to support a PAR request. A meeting with the Substation Committee located in Portland scheduled for week of May 19, 2014. Meeting's focus will be to negotiate a common scope. C37.20 series temperature tables are targeted for this standard rather than C37.100. WG presented a modified scope to the SA S/C as agreed during the WG meetings. Proposed scope can be viewed in the WG meeting minutes.

E.R. Bryon: Motion to modify scope of WG to move forward with proposed scope change, 2nd: C. Ball. Motion passed unanimously.

D. Edwards: If Substation Committee requests any changes to the approved scope, this needs to be reviewed approved by the SA S/C.

E. R Bryon: If consensus with Substation Committee, targeting PAR submittal by August.

Actions for SA S/C: No further action required. Chair will report dual sponsorship negotiation to Main Committee.

h. C37.23 – Standard for Metal-Enclosed Bus

A. Jur: Minutes are provided.

A. Jur: 30 participants in attendance. 226 comments received for action. Two tasks forces formed, one task group focused on separation of LV and MV requirements, one focused on the requirement of air pressurized ME bus. Remaining items to be focused on off line teleconference meetings.

Actions for SA S/C: None

i. C37.24 – Guide for Evaluating the Effect of Solar Radiation on Outdoor Metal-Enclosed Switchgear

L. Farr: Minutes are provided.

L. Farr: 8 participants in attendance. First WG session went well. Work has been split to all participants. Targeting input by July. Scope to be drafted for approval by Fall 2014 meeting so that WG can request a PAR. WG effort is targeting a completion of effort prior to a PAR request.

Actions for SA S/C: None

j. C37.81 – Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies

D. Riffe: No WG session held.

D. Edwards: WG Chair was not in attendance. D. Riffe has committed to attend the fall 2014 meeting. SA S/C Chair will be asking WG Chairs to provide an agenda for WG sessions one month prior to each fall or spring meeting.

Actions for SA S/C: None

k. C37.82 – Qualifications of Switchgear Assemblies for Class 1E Applications in Nuclear Power Generating Stations

D. Riffe: No WG session held.

D. Edwards: WG Chair was not in attendance. D. Riffe has committed to attend the fall 2014 meeting. SA S/C Chair will be asking all WG Chairs to provide an agenda for WG sessions one month prior to each fall or spring meeting.

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Actions for SA S/C: None

5. Old Business

a. IEC Activities

T. Burse: MT 14 still working on a document for Tokyo. Deadline is to complete effort prior to end of Tokyo meetings.

b. ASC C37 – General Update

T. Olsen: C37.50 amendment work ready for submission. When C37.20.1 and C37.20.13 publications are complete; additional work for C37.50 and C37.51 will be required. C37.20.3 and C37.20.4 changes will require updates to C37.57 & C37.58. Copies of reports will be available shortly.

6. New Business

a. P&P Approved Document Training

K. Flowers: "Presentation on Policies and Procedures for: Working Groups" presented to the SA S/C members and guests in attendance. Copy of presentation is attached to meeting minutes.

b. SA Document Status – Required action – review of proposed "SA Document Status" report.

D. Edwards: Not all documents today have an active working group. C37.21 will likely need to next document for action. C37.21 action targeted for action sometime near spring 2015.

M. Wactor: All SA S/C documents expecting to expire by 2018 have active WG's.

c. WG Meeting Room Requests – Update "SA Document Status" report

M. Lafond: Please contact me for any changes for meeting room requirements. Meeting room requests are circulated in SA Document status.

T. Olsen: Dual screen requirements drive a lot of extra expense for our sessions. Please avoid if at all possible.

D. Edwards: WG chairs reminded to contact secretary for any new meeting room requirements.

d. ADSCOM – Items for SA Chair to discuss at ADSCOM meeting

D. Edwards: No actions required for reporting.

e. Main Committee Items – Review items to be presented

D. Edwards: Chair will update ballot activity on C37.20.1 and C37.20.6; C37.20.9 dual sponsorship scope negotiations and P&P training held.

f. Working Group Minutes – To Subcommittee Secretary no later than May 9, 2014.

Email address: mike.lafond@ieee.org

g. WG - Booklet & Website Synopsis – To Subcommittee Secretary no later than May 9, 2014.

Email address: mike.lafond@ieee.org

h. Informal Discussions

T. Burse: Do we want to raise the fees to allow longer beverage service and snacks for our meetings. Active discussions on options to consider higher fees without losing participation and growing company sponsorships.

D. Edwards: Senior membership recognition will be a focus of the Chair and Secretary for future meetings. ERP committee is requesting and looking for participants to write an IEEE paper.

i. Upcoming Meetings

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Fall 2014 (21 Sep – 25 Sep), Renaissance Hotel, Asheville, NC USA
Spring 2015 (27 Apr – 30 Apr), Tradewinds, St. Pete Beach, FL USA
Fall 2015 (20 Sep – 24 Sep), Cataraman Resort Hotel, San Diego, CA USA
Spring 2016 (25 Apr – 28 Apr), Sonesta Resorts, Hilton Head Island, SC USA

7. Adjourn

Motion to adjourn by T. Olsen, 2nd by H. Josten and motion was approved unanimously.
Meeting adjourned at 2:58pm.

Reported by:

Michael P. Lafond
Switchgear Assemblies Sub-Committee Secretary
May 07, 2014

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Attendance record and as recorded in the AMS system:

Role	First Name	Last Name	Company	5/7/2014
Chair	Doug	Edwards	Siemens Industry, Inc.	X
Guest	Roy	Ayers	Nashville Electric Service	X
Guest	Raymond	Browning	FirstEnergy Corp.	X
Guest	Jon	Campbell	Powell Industries	X
Guest	Daniel	Delfino	General Electric	X
Guest	Edgar	Dullni	ABB	X
Guest	David	Dunne	Schneider Electric	X
Guest	Michel	Gaspard	ETA-COM	X
Guest	Aaron	Gibbs	Schneider Electric	X
Guest	Paul	Gingrich	AZZ / Central Electric	X
Guest	Douglas	Giraud	Powell Electrical Systems	X
Guest	Peter	Glaesman	Reuel, Inc.	X
Guest	Lou	Grahor	Eaton Corporation	X
Guest	Bruce	Hack	Crown Electric Engineering & Manufacturing	X
Guest	Jeffrey	Hanson	Schneider Electric	X
Guest	Jared	Hines	Eaton Corp.	X
Guest	Travis	Johnson	Xcel Energy	X
Guest	Arthur	Jur	Eaton Corporation	X
Guest	John	Kaminski	Siemens	X
Guest	Jayamali	Kasige	General Switchgear & Controls Ltd.	X
Guest	John	McClelland	Technibus	X
Guest	Steven	Meiners	GE	X
Guest	Molson	Parvin	CB&I	X
Guest	Jayant	Patel	Crown Electric Engineering & Manufacturing	X
Guest	Samala Santosh	Reddy	Powell Industries	X
Guest	Richard	Rohr	Powell Electrical Systems	X
Guest	Tim	Rohrer	Exiscan	X
Guest	Amy	Rowell	Eaton	X
Guest	John	Shullaw	GE Energy - Industrial Solutions	X
Guest	Michael	Sigmon	Eaton Corporation	X
Guest	Daniel	Sims	Eaton Corp.	X
Guest	Erin	Spiewak	IEEE	X
Guest	Dragan	Tabakovic	Hitachi HVB	X
Guest	Richard	Tanner	Schneider Electric	X
Guest	Jey	Thayalan	Schneider Electric	X
Guest	Terrance	Woodyard	Siemens Industry Inc.	X
Member	Charles	Ball	S&C Electric Company	X
Member	Paul	Barnhart	Underwriters Laboratories	X
Member	Jerry	Baskin	Federal Pacific	X

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Role	First Name	Last Name	Company	5/7/2014
Member	Ted	Burse	Powell Industries, Inc	X
Member	Eldridge	Byron	Schneider Electric	X
Member	Jerry	Earl	ABB, Inc.	X
Member	Lawrence	Farr	Eaton Electrical	X
Member	Michael	Flack	Southern Company Generation	X
Member	Keith	Flowers	Siemens Industry, Inc.	X
Member	Sahadev	Gohil	AZZ/Central Electric Mfg. Co.	X
Member	Tom	Hawkins	Siemens Industry	X
Member	Dan	Hrcir	Eaton	X
Member	Anurag	Jivanani	General Electric	X
Member	Harry	Josten	Siemens Energy & Automation	X
Member	David	Lemmerman	PECO/Exelon	X
Member	Albert	Livshitz	CE Power Solutions	X
Member	Frank	Mayle	Technibus, Inc.	X
Member	Deepak	Mazumdar	Central Electric Manufacturing Co.	X
Member	Charles	Morse	Eaton Corporation	X
Member	Darryl	Moser	ABB	X
Member	T	Olsen	Siemens Industry, Inc.	X
Member	Miklos	Orosz	Schneider Electric	X
Member	Amit	Patel	GE	X
Member	Carl	Schneider	Schneider Electric	X
Member	Mike	Seabrook	GE	X
Member	Paul	Sullivan	DuPont	X
Member	Chand	Tailor	Eaton Corporation	X
Member	Michael	Wactor	Powell Industries, Inc	X
Secretary	Michael	Lafond	General Electric	X

IEEE Power and Energy Society (PES)

Policies and Procedures for: Working Groups

Date of Approval:
19-September-2013 – Switchgear Committee

fair play and openness....

For the development of standards, openness and due process are mandatory.

Openness means that any person who has, or could be reasonably expected to have, a direct and material interest, and who meets the requirements of these procedures, has a right to participate by:

- a) Attending Working Group meetings (in person or electronically)
- b) Becoming a member of the Working Group
- c) Becoming an officer of the Working Group
- d) Expressing a position and its basis,
- e) Having that position considered, and
- f) Appealing if adversely affected.

IEEE due process requires a consensus of those parties interested in the project.

Consensus is defined as at least a majority agreement, but not necessarily unanimity.

Due process is based upon equity and fair play.

working group chair....

Each Working Group shall have a Chair, appointed by the responsible Subcommittee.

A Working Group Officer may be removed by the responsible Subcommittee, or by approval of two-thirds of the members of the Working Group.

chair responsibilities....

- a) Leading the standards development activity according to all of the relevant Policies and Procedures
- b) Forming Study Groups, as necessary
- c) Being objective
- d) Entertaining motions, but not making motions
- e) Not biasing discussions
- f) Delegating necessary functions
- g) Ensuring that all parties have the opportunity to express their views
- h) Setting goals and deadlines and adhering to them
- i) Being knowledgeable in IEEE standards processes and parliamentary procedures and ensuring that the processes and procedures are followed
- j) Seeking consensus as a means of resolving issues
- k) Prioritizing work to best serve the group and its goals
- l) Complying with the IEEE-SA Intellectual Property Policies

working group membership....

Membership shall be granted automatically to those participants attending the meeting of a newly chartered Working Group and upon their request. Thereafter, membership shall be granted after the participant attends two consecutive meetings of an existing Working Group, and also requests membership status.

Membership status is maintained through consistent participation at meetings and through Working Group votes. If a Working Group member misses two consecutive meetings, or two consecutive Working Group letter ballots, his or her membership status may be revoked. The Chair shall notify, in writing, a member who fails to attend two consecutive meetings and who has therefore lost his or her membership.

meeting minutes....

The minutes shall record the essential business of the Working Group, including the following items at a minimum:

- a) Name of the working group
- b) Date and location of meeting
- c) Officer presiding, including the name of the secretary who wrote the minutes
- d) Attendance, including affiliation
- e) Call to order, Chair's remarks
- f) Approval of minutes of previous meeting
- g) Approval of agenda
- h) Technical topics
 - 1) Brief summary of discussion and conclusions
 - 2) Motions, including the names of mover and seconder
- i) Next meeting (date and location)

voting....

The following actions require approval by a two-thirds vote:

- a) Approval of change of the Working Group scope (this requires confirmation by the responsible Subcommittee)
- b) To submit the draft standard for IEEE Standards Sponsor ballot

The following actions require approval by a majority vote:

- a) Formation or modification of a subgroup, including its procedures, scope, and duties
- b) Disbandment of subgroups
- c) Approval of minutes
- d) Approval of Working Group actions other than those requiring a two-thirds vote

find me online....

