

The working group met on Monday, October 13, at 10:24AM.

Patents:

IEEE-SA rules on Patents were reviewed prior to further discussions. The slides of the IEEE-SA Patents Slide Set dated 25-March-2008 were shown. The WG attendees were advised:

- To avoid prohibited discussion topics and object immediately if discussions move into prohibited discussion topics.
- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

The participants were provided an opportunity to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of the standard which will result from the activity of the WG.

No responses were received during the meeting regarding patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.

General:

The PAR for this project was approved by IEEE-SA 26-Sept-2008.

Attendance included 14 WG (of 22) members (1 absent, 7 excused by E-Mail or due to simultaneous meetings) and 15 guests. Attendance is as shown below:

Members	Members	Members	Guests	Guests
P. Barnhart (P)	A. Livshitz (P)	C. Schneider (P)	A. Bonner (P)	P. Notarian (P)
T. Burse (E)	F. Mayle (P)	J. Smith (P)	W. Cheng (P)	E. Peters (P)
E. Byron (E)	D. Mazumdar (P)	A. Storms (P)	T. Esco (P)	T. Schneider (P)
P. Dwyer (E)	A. Morgan (E)	C. Tailor (P)	M. Flack (P)	G. Schoonenberg (P)
D. Edwards (P)	T. Olsen (P)	J. Toney (P)	D. Groves (P)	D. Smith (P)
L. Farr (A)	M Orosz (P)	M. Wactor (P)	H. Josten (P)	A. Storms (P)
D. Gohil (E)	I. Profir (P)		D. Lemmerman (P)	T. Williams (P)
R. Hartzel (P)	R. Puckett (E)		D. Mohla (P)	

P = present, E = excused, A = absent

General:

A PAR for this project needs to be submitted for approval by IEEE-SA. This will be done in 2008.

No comments were received on the minutes of the previous working group meeting, and they are considered approved as distributed.

In previous meetings, two task forces were assigned. The material from prior minutes is repeated below. In addition, chairs for the two task forces plus additional members:

- Task force 1: Seismic (R. Hartzel (chair), T. Olsen, E. Byron, D. Lemmerman, C. Ball, M. Wactor, J. Toney, C. Schneider). R. Hartzel prepared background material on seismic.
 - Material submitted by R. Hartzel was reviewed briefly. This material will be distributed.
 - C. Taylor discussed several white papers discussing the various seismic documents, and these will also be distributed.
 - C37.81 is obsolete. IBC is not very specific, and some are testing to ICC Acceptance Criteria AC156, which contains a factor that results in a very high force during testing, far in excess of historical testing. IEEE 693 was created from a utility substation perspective and its requirements lack the detail needed for consistent testing.
 - Input from the WG members and interested others is requested by late July.
- Task force 2: Flame testing (J. Smith (chair), T. Olsen, A. Storms, M. Orosz, P. Barnhart, C. Ball, M. Wactor). Little activity has occurred to this point. Progress is needed.
 - 6.2.7.1 covers flame resistance tests. C37.55 provides guidance for substitution of materials, but allows different requirements for the substitute materials. C37.55 allows 94V0 flame resistance, quite different from the requirement in C37.20.2. We need to determine proper requirements, and C37.20.2 and C37.55 should agree. If 94V0 is sufficient for substitution, why isn't it acceptable in the first instance? Is 94V0 sufficient? UL 94V0 is based loosely on ASTM 4804. This issue affects a wider group than just C37.20.2. Earlier, we had requested that the Switchgear Assemblies subcommittee appoint a task force to study this issue.
 - Should material requirements differ based on the hardness (durometer) of the material?
 - Is the flame resistance test in 6.2.8 appropriate?
 - We need to involve insulation material suppliers and get their input.
 - In existing 7.9, the reference to 6.2.7 should have been to 6.2.8 instead.
 - The support material on insulation will be distributed.
 - Input from the WG members and interested others is requested.
- Coatings other than paint -- we previously agreed to put E. Byron's information into the draft, and subject it to comments.
- Comments were received from D. Mazumdar
 - Use of switches in metal-clad switchgear
 - Meaning of "no intentional openings" between compartments.
 - Question concerning dc withstand voltage values in table 1.
 - Appropriate requirements for molded insulators (as compared to sheet type insulation).
 - Question validity of cumulative loading values in table 12.
 - Shutter material, metal vs. insulation.
 - Temperature of air surrounding devices.
 - The information from D. Mazumdar will be distributed.

We have discussed these items at several meetings, but little progress has been made. It is time for substantial progress to occur. The chairs are authorized to apply reasonable legal means of coercion.

Harmonization with C37.100.1:

Previously, the WG had reaffirmed the desire to revise clause numbering to reflect C37.100.1 (common clauses). Subsequently, IEEE-SA staff indicated that renumbering would not be acceptable. This subject will be further discussed with IEEE-SA staff, together with assistance from D. Stone and J. Haasz. Pending final resolution of this point, these minutes contain an excerpt from previous minutes on assignments made in this connection. The entire document must be reviewed.

Responsibility for reviewing specific clauses was assigned as follows. All interested parties are invited to submit comments or suggestions for any clauses, not restricted by the responsibilities shown below:

Clause	Subject	Responsible
1	General	M. Wactor
2	References	M. Wactor
3	Definitions	C. Schneider A. Storms

Clause	Subject	Responsible
4	Ratings	T. Olsen
5.3	Grounding	M. Wactor
5.4	Control and secondary circuits	C. Taylor D. Edwards
5.10	Markings	T. Olsen
5.11 -5.19	Interlocks to X-Ray	T. Olsen
5.101-5.109	Internal fault to test cabinet	J. Smith
5.102.3.1	Barriers	D. Mazumdar
6.2-6.2.101	Dielectric	M. Wactor
6.3-6.5	Temperature rise	T. Olsen
6.6	Short-circuit	R. Puckett
6.7-6.9	Degree of protection to EMC	A. Storms
6.100	Auxiliary	T. Olsen M. Wactor
6.101	Mechanical endurance	P. Dwyer
6.102	Flame-resistance and track resistance	M. Orosz
6.103	Flame resistant tests for applied insulation	J. Smith
6.104	Coating test	M. Orosz
6.105	Rain test	D. Gohil
7	Production tests	C. Schneider
8.1	Unusual service conditions	D. Gohil
8.1.4.6	Seismic	R. Hartzel
8.2-8.3	System voltage and insulation	M. Wactor
8.4	Current	A. Storms
8.5 – 8.8	Short-circuit to protection and isolation	T. Olsen
10	Installation	A. Morgan
A	Enclosure	A. Morgan
B	Bibliography	T. Olsen
added	Partial discharge	J. Smith

- Discussion of insulation resistance tests (commonly referred to as “Megger”, a trademark of AVO International). Comments generally supported retention of the ac high-potential tests and not accepting the insulation resistance test as a substitute or additional test.
- Need to add requirements for viewing windows for use with infrared thermal testing. Infrared viewing panes do not pass the impact test required in A.3.6 of C37.20.2. General agreement that the available infrared windows do not pass this test unless they are covered during testing. Draft text on this issue will be in the next draft.
- On Annex A, A. Morgan reviewed and requested more discussion. A subgroup consisting of A. Morgan, E. Byron, C. Schneider, C. Taylor, P. Barnhart, and D. Mazumdar volunteered to review this further.

The meeting adjourned at 11:50PM.

Report submitted by: M. Wactor, WG Chair