

IEEE Surge Protective Devices Main Committee Meeting Minutes
Fall Meeting CNN Center Atlanta GA, October 6, 2006

1) Call to order

Chairman Doug Dorr called to order, members introduced themselves. There were 20 members and 2 guests in attendance.

2) Approval of agenda

Agenda was displayed on the overhead projector and approved with several items added under new business as indicated with an *.

3) Approval of minutes of last meeting

The Spring 2006 Meeting Minutes from Clearwater Florida were discussed and approved.

4) Subcommittee reports

(3.1) Administrative & Standards – D. Dorr

Doug Dorr reported that A&S met for 3 hours on October 4, 2006 and will need a similar time slot for the Spring 2006 meeting. Draft minutes for A&S will be posted on the on-line community website under the 3.1 folder and once approved will be amended to these minutes as an attachment.

Financial Report (General) – K. Brown

The IEEE Balance is approximately \$XXX which was increased from a previous balance of \$YYY prior to the Spring Meeting.

PES TC Activities – F. Waterer

Four papers were presented at the PES National Conference in Montreal on Tuesday June 19, 2006. The presenters were Doug Dorr, Ken Brown and Dalibor Klabor. The papers were well received by the attendees and there were approximately 15-20 people in the room. Several questions were asked and responded to by the presenters.

C62 is being reconstituted to adopt certain IEC standards as US National Standards.

6) Old business

Jodi Haasz provided an overview of the PAR process during the Spring Meeting

7) New Business

Richard Odenberg will hold an awards presentation as the Spring 2007 luncheon to be held on Wednesday May 9, 2007

7) SPDC Future Meeting Locations and Schedule

The next meeting (Spring Meeting 2007) will be held at the Sheraton Sand Key in Clearwater, Florida from May 7-May 10, 2007

8) Adjournment

Attachments

1. LV subcommittee minutes
2. HV subcommittee mtg minutes
3. A&S mtg minutes

Liaison rep attachments

A&S Subcommittee Meeting Minutes

October 4, 2006

1. Call To Order

- a. The meeting was called to order by Doug Dorr and each member introduced their name and affiliation. There were 10 members and 2 guests from the IEEE staff in attendance.

2. IEEE disclaimers

- a. A&S does not need to review the patent slides at the A&S meeting according to the IEEE Program Manager.

3. Approval of Agenda

- a. The agenda was reviewed and accepted with no additions.

4. Approval of minutes of last meeting

- a. Motion to accept the previous minutes were reviewed and accepted.
- b. Motion to accept the minutes from the teleconference was accepted.

5. Committee Reports

- a. **Awards Report-Richard Odenberg**

6. Web Manager's Report – Mick Maytum

- a. The web managers report was added to this report:
- b. Some highlights listed below:
 - Created highly secure 10/350 Forum Folder.
 - Added top views box on "What's New" page
 - Added two moderators
 - List of October Approved PARS posted on SPD Forum in IEEE-SA folder.

7. Bibliography- Carl Lindquist

- a. A copy Bibliography sub-committee report was added to this report

8. High Voltage Sub-Committee Report - Steve Hensley

- a. A copy High Voltage Sub-Committee Report was added to this report.

9. Low Voltage Sub-Committee Report – Ray Hill

- a. A copy of the Low Voltage Sub-Committee Report will be added to this report

10. Secretaries Report

- a. Awards Speaker – Joe DeGregoria of Underwriters Laboratory
- b. Financial Update - \$7899.31 in the budget
- c. Future Meeting Dates – May 7-10 at the Sheraton Sand Key, Clearwater

11. IEC Activities – Joe Koepfinger

- a. Joe provided on the IEC C62 activities to the IEEE-SPDC in the form of a power point presentation. The report includes activities from SC37A, SC37B, TC81 and SB1. The report will be posted with the IEEE Main Committee minutes.

12. Other Coordination Activities and Liaison Reports

- a. The high voltage testing techniques committee Standard 4 is releasing a report.

13. Standards Coordinator Reports

- a. **Jim Wilson HV**
 - i. A copy of the HV Coordinator report was added to this report
- b. **Bill Goldbach LV**
 - i. A copy of the LV Coordinator report was be added to this report.

14. New Business

- a. The luncheon at the Spring meeting will be an Awards Luncheon

Meeting Adjourned

Subcommittee 3.7

Electronic Tools for Documentation and Collaboration

IEEE PES SPDC Fall 2006 Meeting Report to A&S

1 New IEEE-SA Grouper Web Site

- Phase 1 of re-structured site designed to appeal to SPD Stakeholders went live mid-April
How to... details of creating IEEE Web Account, joining Online Community, STDS-SPD Listserv, IEEE-SA and Myballot™ need adding.
Registered with Google, Yahoo! and Ultraseek.
Up to 1 May 294 visitors
DONE

- Phase 2 made fully compliant to IEEE PES Web site recommendations by adding Meeting summaries or reports (2003/2004/Spring 2005)
Awards, special notices, etc
Expanded Terms glossary into letter Group Pages
Added hot links to SPD Forum
Up to 1 October 2006 has had 1600 visitors, 10,000 page views
DONE

- Phase 3 (Spring 2007) add members private area, increase body width and have scrolling window

2 STDS-SPD Broadcast Email Listserv – SPDC News

- 176 subscribers

3 IEEE SPD Forum (Online Community)

- Created highly secure 10/350 Forum Folder.
- Added top views box on "What's New" page
- Added two moderators
- List of October Approved PARS posted on SPD Forum in IEEE-SA folder.

4 Electronic Documentation

- Experiment with IEEE Word Template in 2007 Office and passed on results to IEEE-SA
- Problems found with Unicode fonts certain graphics conversions - being worked on.

IEEE SPDC

Subcommittee 3.2

Bibliography, Definitions and Symbols

(Unofficial)

Meeting on 10/04/06 in Atlanta, GA

The Bibliography, Definitions and Symbols Subcommittee met on 10/04/06 at the Omni

Hotel at CNN Towers, Atlanta, GA for approximately 3 hours. Those in attendance

were asked to introduce themselves. They included:

Members Interested Parties

Bill Goldbach Rick Ellenberger

Leonard Drewes

Carl Lindquist – Chairman

Michael Maytum

Frank Waterer

Andrea Turner Haa

Francois Martzloff

Darrell Wilson

Don Turner

Members Absent Guests

David Jackson Kim Breifelder, IEEE, Mgr., Standards

Jim Wilson Editing and Production

Joe Koepfinger Susan Tatiner, IEEE, Associate

Managing Director

Opening:

The meeting was opened at approximately 08:10 AM with a brief overview of topics to be discussed. We did have a quorum with 9 of 12 members present. An agenda for this meeting had been posted on the Community Web Site on 08/02/06. The Agenda was reviewed and accepted with one change by Mick Maytum who requested the status of the IEEE Dictionary. This addition will be taken up under New Business.

Review and Disposition of Prior Meeting Minutes:

Attendees had been requested to bring the Agenda for this meeting and Unofficial Meeting Minutes from the last meeting as posted on the SPDC Community Web Site on 05/30/06. The Unofficial Minutes for the prior SC 3.2 meeting – 05/03/06 – were projected and attendees who had not downloaded the documents were provided an opportunity to review them. The attendees were requested to review the minutes as we used the Action Items to guide us through the meeting. After a motion was made and seconded the minutes were accepted unanimously without change.

Bibliography:

We reviewed Action Item #1 regarding the bibliography disclaimer. An alternate

disclaimer for inclusion in all bibliography documents was presented and accepted, pending formal approval from IEEE Headquarters. Francois Martzloff provided a table showing several rows of bibliography types and associated information covering needed information. He provided a brief presentation that resulted in creation of several action items and a new Task Force #3. Open Action Items related to Bibliography issues and dispositions were discussed next.

These included Action Items 1, 2, 3 and 4 from the 05/04/05 Meeting Minutes.

Action Item # Action Item / (Responsible Individual) / Status

#1) *At the October 04, 2006 meeting, a new disclaimer was recommended to replace the original disclaimers that had been approved by IEEE Headquarters several years ago, but never implemented due to constraints of the Web Site.*

The new disclaimer:

“NOTE: This paper, in the following pages, is posted here with permission of the IEEE. Internal or personal use of this material is permitted. However, permission to reprint/republish this material for advertising or promotional purposes or for creating new collective works for resale or redistribution must be obtained from the IEEE by sending a blank E-Mail message to pubspermissions@ieee.org.

By choosing to view this document, you agree to all provisions of the copyright laws protecting it.”

A motion was made, seconded and carried unanimously that this new disclaimer will be forwarded by E-Mail from Carl Lindquist to Kim Breitfelder, IEEE, Piscataway, NJ, for review and approval. (C. Lindquist)

#2 *Francois Martzloff will continue to review archive papers and posting will be done on the Grouper Web Site with the assistance of Mick Maytum. Because of the great amount of work required to complete this task, it was recommended that we establish a new Task Force #3 that will include members that can assist Francois with this effort. This work is primarily carried out between meetings. A motion was*

3

made, seconded and passed unanimously to establish this new Task Force #3 and it was agreed that Francois Martzloff will oversee the efforts in this task force. Two SC 3.2 members volunteered during the meeting to participate in this Task Force – Mick Maytum and Darrel Wilson. Task Force #3 may become a Working Group due to the ongoing need for these services.

A bibliography table showing all types of papers and some information on responsibilities was presented by Francois for the subcommittee’s review and comment. The table was reviewed item by item and blanks were filled with the appropriate information. It was agreed that this table would be used as the basis for the new Task Force. The creation

of the new Task Force was reported to the 3.1 A&S Committee and the 3.0 Main Committee with a request for participation by both the LV and HV Subcommittees and Working Groups.

SPD Library and Bibliography

(Hosted by Grouper)

FOLDER CONTENTS ON-LINE ACCESS COMPILED BY

Public domain papers Unlimited FDM General SPD Library (LV) + HV 3.4

Copyrighted papers SPD Members

only

FDM (LV) + HV 3.4

Selected Seminal papers Unlimited SPD Committee

SPD Bibliography One-liners or abstract Unlimited All WGs >>> FDM

Just citation Unlimited 3.2 TASK FORCE

In-text citations format:

(Author, Date) "Title," Publisher, pp (?)

NOT [Bxx]

Bibliography format:

Lead author, co-authors, "Title," Publisher, Date, pp

Some of the papers we are reviewing will be for the limited use of SPDC. This will necessitate use of some type of restriction to access on the Grouper Web Site. Mick Maytum noted that he will be using new software beginning next Spring that will permit establishing such restricted access. Until that time, we will continue to work with papers that need no protection from the general public. It was noted by Mick that for the time being, all posting of documents will be

4

carried out by the Web Master.

Kim Breiffelder, IEEE, explained that while it is strongly recommended that bibliographies be included in each standard, it is not absolutely required by IEEE. It was also pointed out that most documents and standards published by the IEEE today are provided in PDF format and downloaded from their Web Site rather than delivered as paper copies.

#3 Review Access Database to enhance Bibliography search capability relative to searching with Acrobat 5 or later. (F. Martzloff)

While Francois Martzloff will continue with these efforts, this work will likely become part of the Task Force #3 responsibilities.

#4 Await response from IEEE Headquarters regarding bibliography posting, paper posting and possible links between the Grouper site and IEEE Community Web Site. We will work with the new SC 3.7 – Mick Maytum – as we approach the decisions provided by IEEE.

(Mick Maytum / Carl Lindquist / Francois Martzloff).

This Action Item was completed. However, we will be forwarding a new Disclaimer proposal to IEEE per Action Item 1, above. When we receive a reply regarding the new

Disclaimer from IEEE, we will review this issue again.

5

Definitions:

Open Action Items related to Dictionary issues and dispositions were discussed next.

These included Action Items 5, 6, 7, 8, 9, 10, 11 and 12 from the 05/04/05 Meeting Minutes.

Action Item # Action Item / (Responsible Individual) / Status

#5 Await final balloting of C62.42 to move Interim Definitions to next revision of the IEEE – SPDC Dictionary.

(C. Lindquist)

With the successful balloting of C62.42, this Action Item has been completed. Definitions held in the Interim Definitions folder were added to the IEEE-SPDC Dictionary.

#6 “Multiservice surge-protective device” as a new definition was placed on hold pending a formal submittal from WG 3.6.10. It is understood that this term is still being worked on. (C. Lindquist / Tony Surtees)

This is an ongoing issue. The term was modified at the subsequent WG 3.6.10 meeting and we will wait for formal submittal to SC 3.2.

#7 Continue to review C62 standards for definitions that are not presently included in any of the dictionaries.

(C. Lindquist)

This is an ongoing effort.

#8 Continue to review TC-37 definitions for compliance with terms presently in the IEEE-SPDC Dictionary.

(M. Maytum)

This is an ongoing effort.

#9 Add C62.35 Definitions to SPDC Dictionary after successful ballot by WG 3.6.2. (C. Lindquist)

These definitions have been posted on the Community Web

6

Site under “Interim Definitions”. They will be added to the SPDC Dictionary after successful balloting of C62.35. This had still not been completed as of the Fall SPDC meeting.

#10 Get copy of IEC / PAS 60099-7 “Surge Arresters Part 7 – Glossary of terms and definitions from IEC publications 60099 – 1 , 60099 – 4, 60099 – 6, 61643 – 1, 61643 – 12, 61643 – 21, 61643 – 311, 61643 – 321, 61643 – 331, and 61643 – 341”. (J. Koepfinger)

Joe Koepfinger has not attended meetings in 2005 nor 2006.

#11 The SPDC Dictionary of Terms was reviewed at this meeting. The latest approved new terms had been approved at the last meeting and incorporated in this

document dated 10/04/06. The motion was made and seconded to accept this document. This motion passed unanimously.

#12 The Flow Diagram for submitting new terms to SC 3.2 and procedures to be followed was presented to the members of the subcommittee for reaffirmation. A motion was made, seconded and passed unanimously to reaffirm.

Symbols Library:

Work on the Symbols Library graphical format and software selection began with the

Fall, 2005 meeting where the Subcommittee officially accepted responsibility for SPDC

Symbols. At that meeting, we officially agreed upon use of Microsoft Visio as the component symbol and schematic generating program. The latest issue of this software

is Visio 2005.

Open Action Items related to the Symbols Library issues and dispositions were discussed next. These included Action Items 13, 14 and 15 from the 05/04/05

Meeting

Minutes.

Action Item # Action Item / Status

#13 Get copy of IEC Symbols document(s) for review of compatibility with IEEE Std. 315. (C. Lindquist / M. Maytum)
Complete. Symbols library IEC 60617 was provided by Mick
7

Maytum.

#14 A Task Force consisting of M. Maytum, F. Waterer, A. Offner, D. Wilson and L. Drewes will review potential content for a tentative document scope and establish direction for the proposed new Symbols Library for SPDC. This information will be provided for the Fall, 2004 SC 3.2 meeting. (M. Maytum, F. Waterer, A. Offner, D. Wilson and L. Drewes)

Leonard Drewes provided a report and brief presentation on work to date using Visio and generating necessary initial component schematic symbols. It was agreed that Leonard will attempt to generate the schematics for C62.33, presently being updated in WG 3.6.2. This will be treated as a pilot program to determine if the technology will work and can be applied easily. If this pilot program is successful, the Task Force will provide a report to SC 3.2 and we will consider expanding the pilot to other Working Groups.

#15 Follow disposition of some newly proposed SPD Graphical Symbols introduced by the IEC. (J. Koepfinger)

This is an ongoing effort. Joe Koepfinger was not present at the 2005 or 2006 meetings to report on any related issues.

Old Business:

None

New Business:

1) Mick Maytum requested time to provide a brief update on a new IEC Definitions document that has been worked on at the TC-1 meeting in Berlin, Germany last week. He spent some time bringing us up to date with this new document and possible applications we can keep in mind for the future.

Summary of Action Items for Spring, 2007 Meeting: (Responsible Member)

1) It was agreed at the Fall, 2006 meeting that a letter requesting approval of a new disclaimer would be generated and forwarded to Kim Breittfelder, IEEE, Piscataway, NJ, for review and approval. A letter was generated and forwarded to Kim Breittfelder on 10/09/06. (C. Lindquist)

2) Continue to look into sources of IEEE SPDC Archive papers and potential methods for posting. Task Force #3 was created to assist in this effort. (Andi Haa / Francois Martzloff)

3) Continue to review Access Database to enhance Bibliography search capability relative to searching with Acrobat 5 or later. Task Force #3 was created to assist in this effort. (F. Martzloff)

4) "Multiservice surge-protective device" as a new definition was placed on hold pending a formal submittal from WG 3.6.10. It is understood that this term has been renamed and will be submitted to SC 3.2 for review prior to completion of the standard. (C. Lindquist / Tony Surtees)

7) Continue to review C62 standards for definitions that are not presently included in any of the dictionaries. (C. Lindquist)

8) Continue to review TC-37 definitions for compliance with terms presently in the IEEE-SPDC Dictionary. (M. Maytum)

9) Await final balloting of C62.35 to move Interim Definitions to next revision of IEEE – SPDC Dictionary. (C. Lindquist)

10) Get copy of IEC / PAS 60099-7 "Surge Arresters Part 7 – Glossary of terms and definitions from IEC publications 60099 – 1 , 60099 – 4, 60099 – 6, 61643 – 1, 61643 – 12, 61643 – 21, 61643 – 311, 61643 – 321, 61643 – 331, and 61643 – 341". (J. Koepfinger)

11) Review SPDC Dictionary and Definitions Flow Chart immediately for corrections and updates. The updated documents will be sent to all members of SC 3.2 for review and comment. When consensus has been achieved, the new documents will be posted. This review task will be added to the agenda to be performed at every meeting in the future. (C. Lindquist)

12) A copy of IEC Symbols document was obtained from Mick Maytum. Based on a quick review of this document, it will not be as useful as IEEE Std. 315 in establishing our minimal set of symbols for use in IEEE-SPDC documents. (C. Lindquist / M. Maytum / L. Drewes)

13) A Task Force consisting of M. Maytum, F. Waterer, A. Offner, D. Wilson and L. Drewes will continue to review potential content for a tentative document scope and establish direction for the proposed new Symbols

Library for SPDC using Visio. L. Drewes has agreed to create a basic set of symbols using Visio and he will use these elements to generate actual

Minutes of Subcommittee 3.6 Low Voltage Surge Protective Devices

Omni Hotel CNN Center, Atlanta, GA

Thursday, October 5, 2006
Ray Hill, Chair

1. Introduction of Guests and Members
2. Agenda Review: Accepted
3. Spring 2006 Minutes: Accepted
4. Working Group Reports plus Time and Equipment Requirements for Next Meeting (any actions or discussions were deferred to New Business)
 - WG 3.6.1 Low Voltage Gap Type Surge Protective Device Components
Chair: Wolfgang Oertel
Did not meet at this time.
 - WG 3.6.2 Low Voltage Solid State Surge Protective Device Components
Chair: Michael J (Mick) Maytum

Working Group 3.6.2

Low Voltage Solid State Surge Protective Device Components Working Group
Summary Report for IEEE PES SPDC Fall 2006 SC 3.6 Meeting

Chair: Michael J (Mick) Maytum

E-mail: m.j.maytum@ieee.org

Members: 6

Interested Parties: 4

Venue: Pine Room, Omni at the CNN Center Atlanta, GA

Met for: 4 hours, Monday, 2 October 2006

All the standard IEEE and procedural bits were done. No contributions received. Gave status of:

- PAR Extension for PC62.35
- PAR Extension for PC62.33
- PAR for PC62.37.1 revision
- Submission of PAR 1710 – Performance values for self-restoring current limiters
- Submission of PAR 1711 – Test Methods for self-restoring current limiters (both support WG 3.6.7 standards)
- PC62.35 in Ballot

The rest of the time was spent consolidating PC 62.33 Fragments

Next time two 4-hour sessions, projectors, screen, Wi-Fi. No conflict with WG 3.6.1/3/7/10 SC 3.0/1/2/6/7

- WG 3.6.3 Low Voltage Surge Protective Device Components Application Guide

Chair: Tom Conrad – (stepping down as Chair due to job change) – Tom Hartman will replace him as Chair.

1) October 2, 2006 8:00 a.m. -12:00 p.m. Atlanta, GA.

2) Minutes taken by Don Turner, d.b.turner@ieee.org

3) Call to Order – Chairman Conrad opened the meeting at 8:00 a.m.

Members present: 5

Interested Parties: 0

Guests: 0

(Attendance list attached. There were insufficient members present for a quorum. It was noted that because of a job change, Chrys Chrysanthou will not be attending IEEE meetings and should be removed from the membership list.)

4) Reading of IEEE disclaimer

- *patent advice was provided and the two slides were shown;*
- *an opportunity was provided for WG members to identify or disclose patents that the WG member believes may be essential for the use of that standard;*
- *No patents or patent applications were identified.*
- *The “Inappropriate Topics for IEEE WG Meetings” slide was reviewed.*

5) Review of Agenda – The Agenda was reviewed. It was moved and seconded to approve agenda as presented.

6) Review and Approval of Prior Meeting Minutes – The spring 2006 Meeting Minutes were reviewed, and approved as written, subject to electronic approval by the Working Group members since we did not have a quorum. The Chairman will email the minutes for approval.

7) Old Business –

- Status update PC62.42

The Guide has been published. Working Group members have received PDF file copies from IEEE. Figure files for C62.42 were obtained by Chairman Conrad and will be saved on the Working Group web page for future revision work.

- PAR for next revision of C62.42

The PAR has been submitted by Bill Goldbach to NESCOM. The 9/15/2006 approval letter from NESCOM was reviewed. The PAR end date is 12/31/2010. It was noted that the scope of the submitted PAR was changed after submittal; those present did not disagree with the changes.

8) New Business –

- Discussed items to be included in revision of C62.42

Chairman Conrad displayed a list of items to be considered for the next revision of C62.42. Items on the list were discussed. The members present considered splitting the applications section into 2 groupings: AC, and Data/Communications.

- **Need for Working Group Officers**

- Chairman Conrad is currently not employed and therefore doesn't have financial backing to continue SPD travel and participation. It has also

been difficult to find someone to be secretary, technical editor, etc..
 Direction is needed from the 3.6 subcommittee in order for this Working Group to continue its work.

9) Action Items –

Action Item	Assigned To	Due Date
e-mail minutes of this meeting to members for review and approval	Tom Conrad	
Request guidance / direction for continued organization and work from the 3.6 subcommittee.	Tom Conrad	Oct. 4, 06

10) Next Meeting – Clearwater, FL May, 2007

11)Adjournment – The meeting was adjourned at noon.

- WG 3.6.4 Surge Characterization on Low Voltage Circuits
 Chair: Bill Goldbach

30 Attendees, 12 members, 14 IP's, and 4 guests

- The meeting was called to order at 8:00 AM by the SC 3.6 Chair, Ray Hill. Comments were made concerning past-Chair, James Funke, having served SPDC for many years. He is now working for another company and will no longer be attending SPDC meetings. Ray introduced the new Chair, Bill Goldbach.

The Reality Check Initiative was presented at the PES summer power meeting. It should be in the Transactions and included on the OC in the 10/350 Forum folder. Action Item: The Vice-chair will find out if extracting and/or downloading portions of the papers in the folder is possible.

- PARs for the Trilogy have been approved. The Chair indicated the desire to form a TF for each of the documents. A Motion was made to form TFs with Leaders for each document; seconded and approved.
 - Dot 1: open to add new papers and to synchronize with Dot 2.
 - Leader vols/noms: Tom Phipps (voted and approved)
 - Dot 2: open for updates as needed.
 - Leader vols/noms: George Mayle (voted and approved)
 - Dot 45: open only for synchronization with Dot 2, however, needs PAR revision to include the “let it rip” controversy.
 - Leader vols/noms: Joe DeGregoria (voted and approved), Mike Hopkins volunteered to be on the Task Force.
 - Action Item: The Vice-Chair will put the Trilogy documents on the OC for WG only use.

- Scenario II TF report – (Tony Surtees, Chair) Francois Martzloff presented his efforts at a literature search for representative lightning data. The Power Point presentation is on the OC.
- Switching Surges TF – Bryan Cole (Chair) not present; no report.
- Current and Voltage Driven Waveforms – Andi Haa (Chair)
 - Focus on response of the SPD to current, voltage, or the combination wave. The TF deliverable will be findings and a proposed text for insertion into the Trilogy. The WG agreed upon using the terms “voltage driven”, “current driven”, and “preset generator”.
- Exposure Level – Ron Hotchkiss (Chair) – no feedback so far. The TF will come up with text for next meeting for discussion. Discussion concerning multiple categories within Categories A, B, and C ensued. A straw pole was taken on expanding the categories: 17 for keeping only four categories, 0 for expanding to multiple categories (i.e. A1, A2, A3, B1, B2, etc.), 6 abstentions.
- Endurance/Repetitive Testing TF – Bill Goldbach (Chair) - waiting on LS-1. There was discussion as to whether or not this topic was within the scope of this WG. It was agreed that this does fall within the scope Dot 45 from a testing method point of view.
- How to Handle References and Citations TF – Darrell Wilson (Chair) – no conclusion at this point. Committee is in discussions with Carl Lindquist (SC 3.2 Chair).
- Action Item – The Chair will put the three new PARs on the OC.
- A PAR for Dot 48 was discussed. The Chair will submit a new PAR in the Spring of 2008 and will probably just go for reaffirmation. The WG consensus at this time is to go for reaffirmation. The Chair noted that a standard has a five year life.

New business:

The question of having meeting minutes and agenda earlier came up and it was agreed that we should have them out earlier; 30 day target.

Action Item: The Vice-Chair/Sec. will send out a roster with membership and IPs for the new TF Leaders and WG members to use for volunteering.

Adjourn: 11:32 AM

- **WG 3.6.6 Low Voltage AC Power Circuit Protective Devices**

Chair: Ron Hotchkiss

Meeting Date: 10/04/2006

Time: 8-12 am

Location: Atlanta Omni Hotel at the CNN Centre, Maple Room

ATTENDANCE: Members: 14
Interested Parties: 7
Guests: 1

Minutes:

1. Chair opened meeting at 8:05am
2. Introductions, Circulation of Attendance Sheet and Patent Requirements Review
3. Approval of Agenda: Approved unanimously
4. Approval of Minutes: Approved unanimously
Comments: Item 18 pre-ballot – clarification of intent provided
5. C62.72 recirculation – Doug not present at the moment. Ballot has closed.
Passed – 92% approved – 1-2 negative balloters with comments.
Doug reviewed the need to have the graphics in PC62.72 enhanced and errors corrected. Mario volunteered to complete this task.
6. Ken Brown: PC62.62 – no comments or updates – since last meeting. Review of Action Item 11 REF Areas for elaboration reviewed. Ron noted that 62.62 PAR expires 12/31/08.
7. Ken suggested breaking out into Taskforce portions for progress on the document. It was agreed that this would be done after the break.
8. Taskforce Updates:

TF 1: Grounding and Bonding – Bryan Cole (Leader) – Bryan not present.

Tony Surtees provided info on the grounding as related to lightning – provided info on paper presented in Montreal. Andi Haa read the written report provided by Ray Hill which is as follows:

TF 2: MCOV of MOV Coordination – Ron Hotchkiss (Leader)

Ron reported that the paper that Francois Martzloff had performed some years had been circulated.

Conclusions for further progress on taskforce:

1. Use pre-sorted MOVs – consideration of varistor window vs MCOV window
2. Use MOVs from same manufacturer

Consider For Additional Papers:

Use of different waveshape in coordination study.

Use of 40 and 20 mm devices in same experiment

TF Members: Ron Hotchkiss (Leader), Bryan Cole, Ken Brown, Tom Phipps, Dan Buchanan, and Mario Stolzenberg

TF 3: Loss of Neutral – Ron Hotchkiss (Leader)

After brief discussion it was determined that because of the similar issues being reviewed in the UL Intermediate Current Taskforce, The Loss of Neutral Taskforce for 3.6.6 would be restructured as follows:

TF Members: Andi Haa (Leader), Tony Surtees, Joe DeGregoria, Doug Dorr, and Chuck Jensen

Scope of Taskforce was enhanced to include:

Review the various methods in which an abnormal failure can occur – e.g.

- Loss of neutral
- Commingling
- Ferroresonance
- Faults on 3 phase systems wye connected systems
- Aging of MOVs

The goal of the taskforce is to determine appropriate tests and test voltages and provide tests that are suitable to address abnormal failures. Use UL 1449 3rd edition as part of review and discussion.

9. Old Business:
A review of the previous action items was completed and updates were given.
10. New Business: No new business.
11. Breakout session for progress on previous Action Item 11 for work in specific areas.
12. Next Meeting: Monday 7 May to 10 May, Clearwater Beach, FL - Sheraton Sand Key Resort.
13. A list of action items related to these activities was developed.
14. The Chair adjourned the meeting at 11:55am.

- WG 3.6.7 Low Voltage Data, Communications and Signaling Circuit Surge Protective Devices
Chair: Al Martin

SPDC Working Group 3.6.7
Low Voltage Data, Communications and Signaling Circuit SPD
Summary of the Fall, 2006 Meetings in Atlanta, GA
Chairman: Al Martin, Tyco Electronics
ViceChairman/Secretary: Greg Triplett, AC Data Systems

Members present (10), Members absent (4), Interested Parties (4)

1 Administration

WG 3.6.2 met for 4 hours on Monday, October 2, 2006, and 4 hours [with an hour interruption for an IEEE presentation] on Wednesday October 4.

2 Review and approval of agenda (-002)

The agenda was reviewed. It was moved and seconded to accept agenda.

3 IP statement

The intellectual property statement was read, as required by the IEEE

4 Review and approval of the notes from the last meeting (WG3.6.7-05-10-001)

The notes from the last meeting in Clearwater, Florida were posted on the WG3.6.7 VC web site. They were reviewed and approved.

5 Review of homework assignments from last meeting

Al Martin:

- Contribution supplying polymeric PTC values for matrix columns 5.2.2.1 – 5.2.2.9 [done]

Alan Rebeck:

- Contribution taking the phase shift test from C62.36 [clause 7.8] and adding it to C62.64 as subclause 5.2.3.7. [done]
- Contribution supplying values for the Alarm Circuit matrix elements [done]

Carl Lindquist and Bill Travis:

Submit contribution commenting on the following: [done – see 8.3]

- Review Table 10. Is it appropriate to have one table for 3 sections? How should it be laid out?
- Regarding the discussion in 12.3, consider whether the matrix should be expanded to include technology types as a subset of application types. For example, types A11a, A11b, A21a, and A21b, where the “a” would designate heat coils, and the “b” would designate fuses. Alternatively, should a range of values encompassing all technologies should be entered as matrix elements? Any other ideas?

Brian Price:

- Contribution Supplying values for ceramic PTC for matrix columns 5.2.2.1 – 5.2.2.9 [not done – retired]

Phillip Havens:

- Contribution supplying matrix elements for Type G Ethernet. [done]

Chrys Chrysanthou:

- Update Draft 4 to include this meeting’s activity [Al to supply meeting markup of Draft 4]. [done by Al]
In Matrix, add values for Types A20 – A30 Insertion Loss, Return Loss, Longitudinal Balance, Bit Error Rate [not done – changed jobs]
- Global replacement of C62.36-2000 to C62.36-2006 [done by Al]

Everyone

- We need a contribution on the % difference between the BER with the protector installed, and the BER with the protector removed [no contributions].

6 Chair's Remarks

- 10 out of a possible 14 members were present, so a quorum existed.
- The Editor for C62.64, Chrys Chrysanthou, has resigned, as he has changed jobs. We need a new Editor.

7 Liaison

None

8 Continue the revision of C62.64

PAR

This standard is to be revised to include new technology and devices. It will

- **Provide preferred values** and parameters used to specify the **performance** of these surge protectors.
- **Be coordinated** with its companion document C62.36.

Present PAR expires Dec 31, 2006. PAR extension to Dec 31, 2008 approved by NesCom

Discussion of WG3.6.7-06-10-005 [Al Martin – Revision proposal]

Currently the Standard is organized into subclauses corresponding to the tests in C62.36. Each subclause has a table of preferred values for the referenced test. There are two problems with this approach. First of all the implication is that protectors are available with any combination of values from the tables, which is generally not true. Secondly, in today's world protectors are generally selected by reference to a standard [e.g. meets GR974], not by specifying a list of individual parameters.

So a proposal was made and accepted to construct normative annexes for each application listed in Table 1. Each annex is to contain a table whose columns corresponded to protectors complying with a specific standard, and if appropriate, a specific class within the standard. The rows of the table correspond to the tests from C62.36. The elements of the table are the preferred values. The tables of values in the individual subclauses will be eliminated.

The WG produced a template for an annex. This template will be distributed to WG members by E-mail, and WG members will be asked to use the template to create

preferred values for as many annexes as they can. At the next meeting, these contributions will be integrated to create the annexes for the Standard. As an aid to filling out the template, Wolfgang Oertel offered an example of a filled-out template [WG3.6.7-06-10-038L].

Discussion of Clause 5.2 of the Standard

Since the revision proposal was accepted, discussion proceeded on WG3.6.7-06-10-003 [Draft 5 of C62.62] in accordance with WG3.6.7-06-10-005. The discussion of the Standard progressed from 5.2.1.1 through subclause 5.2.2.9, leaving the transmission requirements [subclauses 5.2.3.1 through 5.2.3.7] still to be reviewed. The tables of values were eliminated, and the wording of the subclauses adjusted to reflect the new organization

9 New Business

None

10 Action Items

- Rick Ellenberger will prepare an EXCEL template for the annexes.
- Al Martin will package Rick's template with Wolfgang's example template [WG3.6.7-06-10-038L] and draft 5 of the Standard, and send out to the WG by E-mail. The E-mail is to include instructions for filling out the template.

11 Closing notes

- The Fall meeting was adjourned at 5:00 pm on Wednesday May 3, 2006
- Next meeting: October 2 – 5, 2006 in Atlanta, GA. Venue is TBD
- Eight hours are requested for Monday of the next meeting, due to the Chairman having to leave on Tuesday. The availability of a PC projector, power cords, and a wireless hub would be appreciated. **Adjusting the meeting schedule to avoid conflict between WG3.6.7 and SC3.1, SC3.2, WG3.6.2, and if possible WG3.6.3 would also be appreciated.**
- WG 3.6.9 Performance Standard for Low Voltage Surge-Protective Devices (Secondary Arresters)
Chair: Ray Hill

Meeting: 1:00 PM, Monday, October 1, 2006, Omni Hotel, CNN Center, Atlanta, GA

ATTENDANCE:

Members Present: 10
Interested Parties: 14
Guests: 1 (Mr. Hubert Bachl, Chair IEC SC37A)

1. The Chair opened the meeting at 1:05pm
2. Approval of Spring 2006 Minutes: Unanimously approved as corrected with comment by Tony Surtees.
3. Andi Haa - BRC report: The BRC has had teleconferences and the Dot 44 document is in the final stages of editing. It will then revert back to the BRC for a final check and, afterwards, be turned in for a recirculation ballot. This should occur prior to the end of the year. The WG Chair will submit a PAR extension for Dot 44.
4. The WG has four task forces working on various parts of Dot 34.
5. The title and scope of C62.34 Standard for Performance of Low-Voltage (1000V rms or less, frequency 48-62 Hz) surge protective devices (secondary arresters) requires changing in order to cover test methods and performance criteria. A PAR will be completed to reflect the change.
6. There was WG consensus that test document titles should reflect: STANDARD FOR TEST METHODS AND PERFORMANCE OF LOW VOLTAGE SURGE PROTECTIVE DEVICES.
7. There was WG consensus to adopt the following seven topics as a template for test sections in documents. The test procedure template would consist of:

Rationale
Purpose
General Guidelines
Expected Results and Pass Criteria
Test Setup Requirements
Test Procedure
Special Considerations (optional)

There was a motion and second to take this to SC 3.6 for use by all WGs (16 yea, 2 abstain). Francois M. will introduce this at the SC 3.6 meeting.

Adjourned: 5:00pm

- WG 3.6.10 Surge Protection of Equipment Connected to Both Low Voltage AC Power and Communication Circuits
Chair: Dr. A. J. (Tony) Surtees

MINUTES of IEEE/SPD Working Group 3.6.10

(Protection of Equipment connected to both ac power and communication circuits.)

Meeting held at Omni Hotel, Atlanta, GA on Thursday, Oct 5, 2006 at 0800

ATTENDANCE: Members: 6 of 10, Interested Parties: 8, Visitors/Guests: 0

1. The Chair called the meeting to order at 8:05 am and reported the purpose of the working group.
Introductions were completed.

2. The agenda was displayed on the screen. The agenda displayed was motioned to be accepted, seconded and approved.

a. Comment from Francois: In future agendas, it would be appropriate to ask at this point if there are any new items that need to be included in new business. More appropriately, new business should be submitted one month ahead of the meeting so that the working group can prepare for the new business.

3. The patent slides from IEEE were displayed and discussed. The chair asked if there were any patent issues.

4. Tony Surtees reviewed the patent issue that had been previously brought to the attention of the working group. Tony has sent repeated correspondence to the holders of the patent. He has received an email correspondence followed by verbal confirmation that the holders of the patent feel the patent has expired and there are no claims from the holders of the patent. The patent is no longer considered to be a concern regarding the work of the group.

Action Item: Tony Surtees will verify with the IEEE that the current conclusions with regard to the patent issue are acceptable to the IEEE.

5. The minutes from the previous meeting were displayed, reviewed and approved by the working group.

6. The membership was reviewed by the Chair and Secretary and Chrys Chrysanthou, James Funke, and Steve Whisenant were removed from the membership list due to lack of meeting attendance or changes in their job. William Bush was added as a member.

7. The chair reviewed the PAR and stated that PAR extensions have been filed. Also, the working group chair change form has also been submitted. Also, there was some discussion about possibly changing the order of the wording of the title of the document to be "Test Methods and Performance" to possibly harmonize with the other documents from 3.6. This issue will be discussed in Working Group 3.6 to see if this task will be done for all test documents.

Old Business

8. A review of the action items and updates to the action items are recorded below.

- The patent issue is considered closed unless IEEE feels otherwise.
- The PAR update and working group chair change is in process.

- Action Item: (Carried forward) Matthew Ceglia agreed to see if it would be acceptable from the IEEE's standpoint whether or not a manufacturer could claim compliance with this standard. He will report this back to the working group via the chair.
- It was reported by William Bush that there was no conflict with the work that is being done by the group headed by Percy Pool. Tony confirmed this statement.

Editor's Report

9. Tony Surtees provided the editor's report. No changes have been reported by the editor. James Funke has resigned as the editor. Dean Negrelli volunteered to be the editor for the document.

TF Reports

10. Tony Surtees provided a report for **Task Force #4 (Changes for C62.51)**. Tony reported that no action has been taken by this task force and no action is needed until the completion of PC62.50.

11. Francois Martzloff provided a report for **Task Force #5 (Power Port)**. Francois reported that UL 1449 3rd Edition has been published. It was discussed and decided that the power port procedure will be completed via reference to the UL 1449 document and the documents of WG 3.6.6. Francois agreed to take the action of preparing the reference text to these documents for inclusion in the draft. The work of TF #5 is complete.

Action Item: Francois to prepare the reference text to UL 1449 and the WG 3.6.6 documents for inclusion in the draft.

12. Greg Triplett agreed to accept the leadership role for **Task Force #6 (Communications Port)**. There was no progress on the work between meetings. The task force will carry forward with their work.

13. Mick Maytum provided a report on **Task Force #7 (Interaction/Equalization)**. Mick reviewed the progress of the task force and displayed the work for the working group. The work of this TF will continue.

14. The working group broke out into the TF groups and will report back after a half hour time period.

The working group will discuss the progress of the TF.

15. The working group reconvened and provided updates from the work completed:

Task Force #5 (Power Port):

Work completed.

Action items for the Task Force #5 (Power Port):

1. Francois to prepare the reference text to UL 1449 and the WG 3.6.6 documents for inclusion in the draft.

Task Force #6 (Communications Port):

Greg Triplett presented the plan of how the task force will move forward. Test programs that will be taken out of the body of the document may be moved to an annex. Work will continue for this task force.

Task Force #7 (Interaction/Equalization):

Mick Maytum provided an update and reported good progress on the development of several key

issues that were points of concern. Work will continue for this task force.

A new editor was appointed (Dean Negrelli)

Greg Triplett volunteered to lead Task Force #6.

Mick Maytum was accepted as a new member. William Bush will be considered and taken to 3.6 for membership.

It was decided that the working group will use the “seven step” template that was presented by

Francois.

Action Items from Oct 5, 2006 Meeting (Working Group):

1. **Tony Surtees** will verify with the IEEE that the current conclusions with regard to the patent issue

are acceptable to the IEEE.

2. All task force leaders will provide the editor with their updates to the draft.

3. **William Bush** is to provide Mick Maytum with the voltage equalization sections from IEEE 1100.

4. **Ron Hotchkiss** is to provide the editor the email addresses for the working group and the task

force leaders with the email address of the editor.

5. **Ken Brown** is to determine if the working group would be allowed to post the draft of NEMA LS

1.x to the “members’ area” of the forum as an example of the type of descriptions desired for the

3.6.10 document.

5. Disconnect Task Force Report – Ron Hotchkiss, Chair

The task force will present its final report/recommendation at the Spring 2007 meeting as directed.

6. Forum 10/350 Issues: Several topics were discussed and will continue in the sub-committee and affected working group meetings during the Spring 2007 meeting.
7. A&S Issues
8. Working Group Titles and Descriptions / Scopes (if time permits) – no time available
9. Old Business
10. New Business
11. Adjourn

Minutes of HVSPD Subcommittee Meeting

OMNI Hotel CNN Center
Atlanta, Georgia
October 5, 2006
Steve Hensley, Chairman
-- UNAPPROVED --

1. Call to Order

The meeting was called to order Thursday October 5, 2006 at 2:00 p.m.

2. Attendance

The following were in attendance:

Name	Affiliation	Member
Steve Hensley (chair)	Joslyn Manufacturing	M
Michael Champagne (vice chair)	Entergy	M
Eva Tarasiewicz	Ontario Hydro One	M
David Jackson	R. W. Beck	M
Jon Woodworth	Cooper Power Systems	M
Mike Comber	Hubble Power Systems	M
Mike Ramarge	Cooper Power Systems	M
Thomas J. Rozek	DTE Entergy	M
Jim Wilson	Retired	M
Rusty Robbins	Southern Co.	M

M = Member; G = Guest; IP= Interested Party

The chair read the IEEE-SA Standards Board Bylaws on Patents and Standards to those present.

3. Minutes

The Spring 2006 meeting minutes were approved without correction.

4. Working Group Meetings were held for:

- 3.3.11 Continuous Rev. of C62.11 Mike Comber
- 3.4.8 Protection & Insulation Coord. Of Transformers Eva Tarasiewicz
- 3.4.9 Surge Protection of AC Machines C62.21 Dave Jackson
- 3.4.13 Surge Protection of Generating Plants Rusty Robbins
- 3.4.14 High Voltage Arrester Application Guide C62.22 Jody Levine/Tom Rozek

- 3.4.18 Insulation Coordination Iuda Morar
- 3.5.7 Neutral Grounding Steve Whisenant

WG 3.4.16 Separation Effects (Tom Fields, chair) did not meet.

5. Key Points from review of working group minutes

All working groups reviewed the IEEE –SA Standards Board Bylaws on Patents and Standards to those present.

3.3.11 -Continuous Revision of C62.11

Mike Comber, Chair

The WG met on Wednesday, October 4 with 17 members and three interested parties.

The WG reviewed task force reports:

TF #10 - (Switching Surge capability Test) - There was a slight revision to include introductory remarks (rational, history) to the text. Now it's ready for inclusion in the next revision of C62.11.

TF #11 - (Weather Aging of Polymer Arresters) - There was a discussion of the bracket aging test which centered around the question of whether or not there should be two classes of bracket. One proposal was a high and an normal pollution area. Larry Vogt (not present) has survey results and may be able to provide an answer at the next meeting.

TF #12 - (Definitions) – The TF reviewed definitions in C62.11 and compared them to the bibliography committee's list of definitions. Some inconsistencies were found in definitions. Future work for this TF is to determine if any terms and their definitions should be added to the definition clause of the next revision of C62.11.

TF #13 - (Short Circuit Test) – The TF needs to format the text of the test procedure into the standard format the C62.11 document and submitted as an amendment to C62.11-2005. The TF is working on a PAR to submit in time for the December meeting.

TF #14 - (Test Rationale) – The TF met on Tuesday, October 3 to work on the reason and rational of each test as defined in C62.11. 17 out of 23 tests have volunteers to write their rationales.

The WG was updated on work done in IEC.

3.4.8 - Protection & Insulation Coordination Of Transformers

Eva Tarasiewicz, chair

The WG met on Thursday, October 5 with 13 members and interested parties (total).

The WG undertook to address the unresolved comments from the 2005 ballot of C62.22 that pertained to clauses 5.1, 5.2 and 5.3. The WG resolved approximately 20 comments and three technical questions. The chair will submit the spreadsheet with the resolved comments to Jody Levine, Tom Rozek, and Dave Jackson by November 30, 2006.

3.4.9 - Surge Protection of AC Machines C62.21

Dave Jackson, chair

The WG met on Tuesday, October 3 with 4 members and 2 interested parties.

The WG discussed and IEEE paper and the draft of C62.21.1 with the stuck breaker issue and the exact definition of per unit voltage. The WG concluded that one per unit is the crest value of phase-to-ground voltage when discussing surges, but the chair took an action item to confirm this conclusion with the one of the authors of the paper in question. There are other questions concerning the paper which the chair will try to answer and, if necessary, set up a conference call between the author and the WG members.

There is no template for a corrigenda from IEEE. Matt Ceglia provided an example to use to revise C62.21.

3.4.13 – Application Guide for Protection of Electric Generating Plants C62.23

Dave Jackson, Rusty Robbins, co-chairs

The WG met on Thursday, October 5 with 5 members and 3 interested parties.

The WG worked on the draft of C62.23. Some statements were modified to bind generating plants' ground grids to transmission ground grids as opposed to IPPs, wind farms, and micro grids. The clauses concerning power lines and switch yards will remain. The WG will continue to resolve comments to latest ballot.

3.4.14 - High Voltage Application Guide C62.22

Tom Rozek & Jody Levine, co-chairs

The WG meeting was devoted to working on the ballot resolution of C62.22. The remaining 250 comments were divided at the meeting amongst non-BRC members and are due back to Jody Levine by November 30, 2006.

3.4.18 - Insulation Coordination

Iuda Morar, Chair (Reported by Jon Woodworth)

Mike Champagne will provide a copy of 1312 (now C84.1) to chair. Dave Jackson suggested that standards group may be able to provide the balloted copy of this standard.

Jim Wilson has received a PAR extension for C62.82.1 until 2010.

The Chair requested more help going through C62.82.2 because of the length of the document. This work will involve comparing this document to IEC standard (IEC 71.2) and preparing for future revisions. Jim Wilson has applied for a new PAR for this document.

Dave Jackson suggested that the draft be identified as such (C62.82.1/D1/2006) to be aware of which draft is current.

There were some significant changes to C62.82.1

Previous revision (C1313.1-1999) was added to the references

Definitions

3.11 correct square root of 3

3.23 explanation of overvoltage, including maximum RMS voltage to explain Vm

Discussion of changes to voltage levels shown in Table 1. These voltages should be compared to what is shown in C84.1. Mike will be working to get a copy of this document.

Other editorial errors in the document were corrected.

Dave Jackson suggested that line numbers per page be added to each draft of a document so that discussion of changes in working groups could be facilitated. Dave also suggests that nothing should be assumed unless that you can trace it or justify it. He also suggests that the comments for the draft be posted for the working group to be able to view.

Dave is going to look back and see if he has any comments that need to be incorporated from Gerald Lee and others that haven't already been incorporated. He plans to email those comments to the chair.

There is no C62.82.2 draft as of yet, only the C1313.2 revision.

Dave suggests that the comments for C62.82.2 also be posted.

Jon Woodworth looked for reaffirmation ballot comments on the online community. They are there.

Bengt Johnnerfelt and Heather McNeely requested membership to the working group.

Mike Champagne, Jeff Steiner, Heather McNeely, and Dave Jackson volunteered for TF3. Dave Jackson volunteered to compare C62.82.2 and IEC 71.2.

3.5.7 - Neutral Grounding

Steve Whisenant, chair (Michael Champagne, acting chair)

Because of the sparse attendance, it was not practical for the WG to break into its various taskforces. The WG as a whole reviewed the status of each task force.

TF #1- It was stated that there was a technical error in this document and that technical errors should be noted in the minutes of this meeting. The error is that an equation associated with Figure 1 of this document should be changed to read as follows:

$$X_{cg}/3 = 1/3\omega C_g$$

Some members of the WG thought that this should be corrected in a corrigendum. No decision was made. There is a template for a PAR on to do a corrigendum on the IEEE-SA website.

TF #2 - The technical papers provided by Dave Jackson are under review. No decision yet whether to revise or reaffirm the document. The working group should reach a decision by the spring 2007 meeting. The appropriate PAR can then be prepared and submitted by for the Sept. 2007 Standards Board meeting.

TF #3 - A PAR has been approved to revise this document. It expires December 31, 2008. The Chair has an editable version of the document. Comments received during the reaffirmation process are being reviewed. Several sections of the old document are being updated specifically the

Electrical World survey data of power plants and Table 2 on Damage Criteria. Two items have transpired since the last meeting:

1. The TF is encountering some difficulties in accumulation of data because electric utilities stopped investing in generation. Merchant power producers began installing plants and may not have been included in surveys. Dave Jackson took an action item to write to Electrical World to determine if surveys have continued in recent years. If yes, he will ask for information. If no, the WG will state in the next revision of the document that this information is no longer available. If this produces negative ballots, the WG will move this information to an informative annex.
2. Table 2 of the document illustrates Allowable Damage Criteria for Copper and Aluminum. The TF will make calculations to determine if they need to re-write the table and review ballot comment(s).

TF #4 - No report. A PAR was approved for the revision of this document. It expires December 31, 2009. Jim Wilson requested and received a document extension to match the PAR date.

TF #5 - The Chair re-circulated his proposed responses to comments for TF review twice since the last meeting and got no responses. The TF has an editable word version of the document and most of the figures in TIF format.

The Task Force Chair contacted Keith Stump and Reigh Walling to discuss the comment about breaker restrike vs. fault reignition. The Task Force Chair read Reigh and Keith's discussion and agrees with it. There is some confusion on the exact position of the comment. After some discussion in the meeting, the Task Force Chair took an action item to contact the balloter to discuss his position further. Jim Wilson will provide the name and contact information of the balloter.

The Task Force Chair also took an action item to edit the document according to his recommendations to the most recent ballot comments and provide the WG with an updated version of the document with tracked revision marks for its review at the next meeting.

6. Old Business

No old business.

7. New Business

Document PC37.116 Draft 9, which has to do with series capacitor banks and field commissioning and testing. Its scope does not include anything on testing of arresters themselves. The consensus in this meeting is that that document does not conflict with any of this subcommittee's work. There is one member (not present) that differs in opinion. The decision of the subcommittee is to do nothing. Jon Woodworth took an action item to contact the member for further discussion.

8. Meeting Time Requirements for Fall Meeting

The following is a list of meeting time requirements for the fall 2005 Meeting in Atlanta, Ga:

3.3.11	Continuous Revision of C62.11	4 hrs.	
3.3.11-TF#14	Purpose and Rationale of Tests	4 hrs.	
3.4.8	Protection & Insulation Coord. Of Transformers	2 hrs.	
3.4.9	Surge Protection of AC Machines C62.21	4 hrs.	
3.4.13	Application Guide for Protection of Electric Generating Plants.	2 hrs.	2 hrs.
3.4.14	High Voltage Application Guide C62.22	2 hrs.	
3.4.16	Separation Effects	2 hrs.	
3.4.18	Insulation Coordination	2 hrs.	
3.5.7	Neutral Grounding	2 hrs.	

10. Adjournment:

The meeting was adjourned at 3:20 p.m.

PES-SPDC High Voltage Standard Coordinator Report
For Fall 2006 A&S Committee Meeting
Jim Wilson – October 02, 2006

The status of the documents in the high voltage area of the SPDC is shown in the Excel file hvstdstatus.xls dated October 02, 2006.

The following have been accomplished since our spring 2006 meeting:

The PC62.22 ballot resolution committee is still working on preparing a recirculation ballot draft of PC62.22 based on the comments received during the ballot of PC62.22, a revision of C62.22-1997, the Guide for the Application of Metal-Oxide Surge Arresters for Alternating-Current Systems and still working on adding the BRC comments to the ballot comment spreadsheet. The PAR PC62.22 for this work has been extended by the IEEE-SA Standards Board until December 31, 2007. The life of the existing C62.22-1997 has been extended until the end of this PAR period, December 2007.

A PAR has been approved by the IEEE-SA Standards Board for PC62.21-2003-Cor 1, the Guide for the Application of Surge Voltage Protective Equipment on AC Rotating Machinery 1000 Volts and Greater – Corrigendum 1: Correction to Equation A.3.

A PAR extension has been approved on September 15, 2006 by the IEEE-SA Standards Board for PC62.82.1, a revision of Std 1313.1-1996, the Standard for Insulation Coordination – Definitions, Principals, and Rules, until December 2008.

At the request of NesCom, instead of requesting a PAR extension for PC62.82.2, a revision of Std 1313.2-1999, the Guide for the Application of Insulation Coordination, we have requested that the existing PAR be withdrawn and have submitted a request for a new PC62.82.2 for this revision. This new PAR has been placed on the continuous processing schedule beginning on October 2, 2006.

ASC C84 has a revised C84.1, the Electrical Power Systems and Equipment - Voltage Ratings (60 Hz), document that includes the information from Std 1312-1993, the IEEE Standard Preferred Voltage Ratings for Alternating-Current Electrical Systems and Equipment Operating at Voltages Above 230 kV Nominal, and this revised document is currently out for ballot.

The IEEE-SA VuSpec group has been working with C62.21-2003 to produce an interactive document for use in actually doing calculations for the user. Five SPD people are going to review this project for IEEE-SA. The first draft has been completed and our suggestions to the draft are being considered.

Sherry Hampton is the new contact person for NesCom. Jodi Haasz has moved to international activities. Dave Ringle is still our contact person for RevCom.

The following should be done in the near future:

Finish the resolution of the negative ballots, finish the comment resolution spreadsheet, prepare a revised document, and conduct a recirculation ballot on PC62.22, the Guide for the Application of Metal-Oxide Surge Arresters for Alternating-Current Systems..

Submit a PAR for the revision of any of the remaining two existing and the one new neutral grounding application guides that a task force wants to revise. (C62.92.1, C62.92.2, and C62.92.6). Comments from ballots are available for the existing documents.

Current PAR expiration dates with in the next two years:

December 2006 – PC62.82.2 (we have already submitted a request for a PAR extension)

December 2007 – PC62.22

December 2008 – PC62.82.1

December 2008 – PC62.92.3

Current Document expiration dates with in the next two years:

December 2007 – C62.22-1997

December 2008 – C62.21-2003

December 2008 – Std 1313.1-1996

Additional comments concerning the Standards Board and the PES Technical Council Standards Coordinating Committee.

The remaining 2006 and the 2007 Standards Board regular submittal deadline dates are:

- October 16, 2006 for December meetings
- February 9, 2007 for March meetings
- April 27, 2007 for June meetings
- August 17, 2007 for September meetings
- October 15, 2007 for December meetings

IEEE-SA has launched their new myProject web-based system. The myProject system encompasses the standards development process, not just the balloting process. You can find myProject on the IEEE-SA web page using <https://development.standards.ieee.org/my-site>. Among the choices at this location are:

- MyBallot
- Project Authorization Request (PAR) Process
- Retrieve a Submitted PAR

The IEEE-SA Welcome to IEEE Standards Development Online can be found on the IEEE-SA web page using <http://standards.ieee.org/resources/development/index.html>.

Answers to frequently asked questions about my Ballot can be found on the IEEE-SA web page using <http://standards.ieee.org/db/balloting/mbfaq.html>

All official IEEE Standards templates, including the Word template and the FrameMaker(TM) templates, are available from the IEEE Web site using:
<http://standards.ieee.org/resources/development/writing/templates.html>

The Standards Board has provided three revised pages on Patents in Standards. The first page is instructions for Working Group Chairs to review and the last two pages are to be shown at each Working Group meeting. The three pages can be found on the IEEE-SA web page using <http://standards.ieee.org/board/pat/pat-slideset.ppt>.

The IEEE Code of Ethics can be found on the IEEE web page using http://www.ieee.org/portal/index.jsp?pageID=corp_level1&path=about/whatis&file=code.xml&xsl=generic.xsl.

The Working Guide for Submittal of Proposed Standards has information on requirements for submitting document can be found on the IEEE-SA web page using <http://standards.ieee.org/guides/revguide.html>.

The Instructions for and the PAR forms can be found on the IEEE-SA web page using <http://standards.ieee.org/guides/par/index.html>.

Information on existing PARs can be found on the IEEE-SA web page using <http://standards.ieee.org/board/nes/approved.html>

Information on the status of any of the IEEE-SA documents can be found on the IEEE-SA web page using <http://standards.ieee.org/db/status/index.shtml>

Information on the status of the balloting of documents can be found on the IEEE-SA web page using <http://standards.ieee.org/db/balloting/index.html>

IEEE, PES, SPDC Low-Voltage Standards Coordinator Report
William Goldbach

Atlanta, GA Meeting October 1, 2006

The following items have been completed since the last meeting or need action to complete:

C62.31-2006 (STANDARD TEST SPECIFICATION FOR GAS-TUBE SURGE-PROTECTIVE DEVICES), Approved for publication

C62.34 (R2001) (Standard for Performance of Low-Voltage Surge-Protective Devices (Secondary Arresters)). PAR approved until 12/2006. Work on the draft continues. Needs a PAR extension or a new PAR.

C62.35 (STANDARD TEST SPECIFICATION FOR AVALANCHE JUNCTION SEMICONDUCTOR SURGE PROTECTIVE DEVICES), PAR approved until 12/2006. Work on the draft continues. Needs a PAR extension or a new PAR.

C62.42 (Guide for the Application of Surge Protective Devices for Use in Low-Voltage Circuits) Approved for publication.

C62.44 (GUIDE FOR THE APPLICATION OF LOW-VOLTAGE (1000 VOLTS RMS OR LESS) SURGE PROTECTIVE DEVICES USED ON SECONDARY DISTRIBUTION SYSTEMS (BETWEEN THE TRANSFORMER LOW-VOLTAGE TERMINALS AND THE LOAD SIDE OF THE SERVICE ENTRANCE PANEL) Draft balloted, and BRC formed. PAR approved until 12/2006. Work on the draft continues. Needs a PAR extension or a new PAR.

C62.64 (Standard Specification for Surge Protectors Used in Low-Voltage Data, Communications, and Signaling Circuits), Approved for publication.

C62.72 (Guide for the Application of Surge-Protective Devices for Low-Voltage AC Power Circuits). Draft has been balloted and includes a recirculation.

The following PAR extensions or revised PARs will be necessary and submitted for the October 16 deadline, for the NesCom meeting, to continue work on the projects. This date is also applicable for any RevCom submittal.

- PC62.33
- PC62.35
- PC62.44
- PC62.51

If not renewed by the end of this year all of these projects will expire and new PARs will have to be created. Projects will no longer be extended, and official submittals and approvals will be required.

Standards that are allowed to expire will be administratively withdrawn.

New PAR's have been submitted:

PC62.39 - Test Methods for Self-Restoring Current Limiter Components used in Telecommunication Surge Protectors

PC62.69 - Standard Specifications for Self-Restoring Current Limiter Components used in Telecommunication Surge Protectors

All of the active projects are shown in the attached file WG vs Project vs Expirations 10-1-2006, this report shows projects that need urgent action.

A summary and status of all the active projects are shown in LV Std Report 10-1-2006

William Goldbach
 IEEE, PES, SPDC Low-Voltage Standards Coordinator

IEEE SPDC WG vs Project vs Expirations					
WG Chair	W.G.	Project	Standard Expires	PAR Status	Needs
W Oertel	3.6.1	C62.31	12/2011	12/2006	
		C62.32	12/2009		
M Maytum	3.6.2	C62.33	12/2006	12/2006	PAR Ext
		C62.35	12/2005	12/2005	PAR Ext
		C62.37	12/2007		
		C62.37.1	12/2010		
		C62.69		12/2010	
		C62.39		12/2010	
T Conrad	3.6.3	C62.42	12/2011		
W Goldbach	3.6.4	C62.48	12/2010		

		C62.41.1	12/2007	12/2009	
		C62.41.2	12/2007	12/2009	
		C62.45	12/2007	12/2009	
R Hotchkiss	3.6.6	C62.62	12/2005	12/2008	
		C62.72		12/2007	
A Martin	3.6.7	C62.36	12/2011		
		C62.43	12/2010		
		C62.64	12/2011		
R Hill	3.6.9	C62.34	12/2006	12/2006	PAR Ext
		C62.44	12/2003	12/2006	PAR Ext
T Surtees	3.6.10	C62.50		12/2007	PAR Ext
		C62.51		12/2006	

Shaded areas are standards that need immediate attention