1. **Introductions**

Robert Fletcher called the meeting to order at 07:35 am.

There are 59 members of the committee and 32 members were in attendance. There were 52 total attendees.

Kurt Uhlir, as the host and organizer for this meeting’s venue, discussed the local arrangements. Kurt recognized the corporate sponsors who financially contributed to this week’s events:

- C&D Technologies
- GNB Technologies
- Standby Power Systems

The PES Stationary Battery Committee thanks Kurt Uhlir for organizing the meeting.

The minutes from the January 2008 meeting were approved unanimously.
Jim McDowall and the working group chairs provided an update on the various standards.

<table>
<thead>
<tr>
<th>PAR # / WG</th>
<th>Subject</th>
<th>Chair</th>
<th>Last Issued</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>450</td>
<td>Vented Lead Acid Maint and Testing</td>
<td>Clark</td>
<td>2002</td>
<td>The document is under revision. Two sessions are scheduled for this week.</td>
</tr>
<tr>
<td>484</td>
<td>Vented Lead Acid Installation</td>
<td>LaMarca</td>
<td>2002</td>
<td>IEEE 484 reaffirmation ballot was completed. There were three negative ballots. An attempt will be made to resolve the negative ballots and complete the reaffirmation. A PAR may be opened to address the comments brought forth by the reaffirmation.</td>
</tr>
<tr>
<td>485</td>
<td>Lead Acid Sizing</td>
<td>Fletcher</td>
<td>1997-R2003</td>
<td>The ballot was just completed. There were a few negative ballots and many comments received which will be discussed in the 485 session this week.</td>
</tr>
<tr>
<td>535</td>
<td>Nuclear Battery Qualification</td>
<td>R. Beavers</td>
<td>2006</td>
<td>No action</td>
</tr>
<tr>
<td>1106</td>
<td>NiCad Install, Maint, and Testing</td>
<td>McDowall</td>
<td>2005</td>
<td>No action</td>
</tr>
<tr>
<td>1184</td>
<td>UPS Battery</td>
<td>Patel</td>
<td>2006</td>
<td>No action</td>
</tr>
<tr>
<td>1187</td>
<td>VRLA Installation</td>
<td>Jump</td>
<td>2002</td>
<td>Two meetings scheduled this week to work on the revision.</td>
</tr>
<tr>
<td>1188</td>
<td>VRLA Maint and Testing</td>
<td>Cantor</td>
<td>2005</td>
<td>There is a session this week to discuss the possibility of opening a PAR.</td>
</tr>
<tr>
<td>1189</td>
<td>VRLA Selection</td>
<td>Marrero</td>
<td>2007</td>
<td>No action</td>
</tr>
<tr>
<td>1491</td>
<td>Battery Monitoring</td>
<td>Cotton</td>
<td>2005</td>
<td>One session scheduled this week.</td>
</tr>
<tr>
<td>1578</td>
<td>Spill Containment</td>
<td>Taylor</td>
<td>2007</td>
<td>No action</td>
</tr>
</tbody>
</table>
1625 Portable Computer Batteries Layton 2004 Ongoing revision.

1635 Ventilation Document Clark Draft A ballot group has been formed. There is an issue with the PAR which has expired. The PAR issue is expected to be resolved soon. The plan is to open the ballot on June 30th.

1657 Technician Qualification Ashton Draft A working group session is scheduled this week. The document is expected to be balloted after this meeting. The PAR expires at the end of 2008.

1660 Battery Cycling Corey Draft A re-ballot was just completed. There is one unresolved negative ballot.

1679 Emerging Battery Technologies McDowell Draft Balloting expected this year on the parent document.

1725 Cell Phone Battery Howard 2006 No action.

1825 Digital Camera and Camcorder Batteries Baronas Draft This document has been withdrawn.

Samuel Norman is coordinating an effort to get more PES-SB members elevated to the senior grade. The requirements for the senior grade are ten years of professional experience and at least five years of significant experience.

Membership requirements were discussed. To be a member/participate of a working group, no IEEE or SA membership is required. PES-SB members must be IEEE and PES members. To vote on standards, you must be an SA member. Working group chairs must be members of PES-SB.

3. *Introductions.*
Each attendee introduced themselves.
4. **Coordination**

ATIS (Alliance for Telecommunication Industry Solutions), NIPP (Network Interface Power and Protection committee), Network Power Systems Subcommittee, (Tom Croda - Chair, Jerry Meyers – Vice Chair) They are still working on a cable sizing standard (see previous minutes). Also they have reaffirmed standard T1.330 (VRLA Batteries Used in Telecommunications Environments) and standard T1.311 (DC Power Systems Telecommunications Environment Protection). There is a new committee that is creating a new energy efficiency standard (TEE, Telecommunications Energy Efficiency)

Telcordia - No status.

SCC-21 –No status

Battcon (Allen Byrne)

Battcon this year will occur next year April 27-29, Orlando Florida. Kurt Uhlir was selected as the battery person of the year at this year’s Battcon. Please contact Allen Byrne or any other member of the Battcon technical committee if you would like to present a paper at next year’s conference.

InfoBatt (Zbig Noworolski)

The InfoBatt conference will be held November 2nd, 2008. See Zbig for more details.

NEMA – No status.

McCluer liaison report

- NFPA 111 - ROP has been published; the deadline to submit comments is August.
  There are several that need to be looked at by the IEEE Codes WG
- NFPA 70 (NEC) - Deadline to submit proposals for 2011 NEC is November. Codes WG has many proposed changes to Article 480.
- NFPA 70E - Std for workplace electrical safety
  1. TC dropped the Scope of 70E from 115V to 50V battery systems. Our Code Committee succeeded in changing a LOT of sections that had rules for battery systems above 50 volts. We clarified that NOMINAL 48 volt systems are not covered
  2. We succeeded in removing a requirement for 36” separation between battery sections >120 volts; NFPA 70E will now match the NEC which requires 2” separation between sections >250 volts
  3. We got them to add some IEEE standards to the reference list
McCluer liaison report (continued)

4. We got them to change “sealed battery” to VRLA and provided several definitions
   - Unless somebody appeals in the next 2 weeks, a significantly updated NFPA70E will be published in early 2009

Arc Flash
   - IEEE and NFPA are jointly working on an arc flash study. Per Ben Johnson, IEEE co-chair of the project's Steering Committee: "The lack of information on DC Arc Flash has been voiced by several in industry, especially those in the Utility industry. Bruce Power of Ontario, Canada funded an extensive test program to gain information on DC Arc Flash. As part of their contribution to the IEEE/NFPA Collaboration Research Project, Bruce Power has turned over all the data and the report developed from these tests. The Project and Research Managers for the Collaboration are actively evaluating this data. When this data is available and verified in a form that is useful it will be given to IEEE 1584 and NFPA 70E Committees to revise these standards."

   - Per Susan Vogel
     The brochure describes the project and its intents for research and testing. The project's work will cover DC arc flash. The Project Manager is Dr. P.K. Sen. We have asked him to respond to the Stationary Battery Committee.

   - Per Jim Pauley, chair of the NFPA Standards Committee and member of the Arc Flash technical steering committee,
     "The specific test data and results are intellectual property that belongs to the project owners (IEEE and NFPA). We will ultimately have access to that data when it is appropriate, but they are limited through some confidentiality agreements as to how much they can share and when."
     $3.7 million has been raised to date in support of the IEEE/NFPA Collaboration, which is about ½ of the $6.5 million that is needed. Schneider electric recently contributed $500,000 to the project.
     Testing will be underway by the mid-part of this year.
     Make sure that you take a look at the Project Update link on the website's home page. This is the update that was provided by the Steering Committee co-chair, Ben Johnson, at the IAS Electrical Safety Workshop in March.
     Sue Kim – will look into how to create a liaison with the IEEE Stabatt
McCluer liaison report (continued)

Codes Working Group (Steve McClure) met 4/4

Discussions on NFPA 70E proposals that were overturned in the “comment phase”. We decided to submit NITMAMs challenging the technical committee’s action on three proposals. footnote: He presented those challenges last week at the NFPA summer meeting – we won one and lost two.

MSDS TASK FORCE (Steve McClure)

has not met since Dallas winter meeting - need to meet in the next couple of months or decide to dissolve the WG. Anyone who is interested can join. Our goal is to create a guideline so that all battery MSDS contain the same type of information presented in the same manner.

GLOSSARY WORKING GROUP (Steve McClure)

meetings 3/6; 3/21; 4/14; 5/1; & 6/8/2008. Batcon presentation in May; Stabatt presentation today.

Nuclear Task Force WG – Jeff L. Meeting this week. Discussion about VRLA batteries in new nuclear plants

PES – The Summer PES meeting is in Pittsburgh in mid-July. Bob Fletcher will be attending for PES-SB. There will be a nuclear power super session. PES is now the Power and Energy Society

PES-SB. At the end of the calendar year (2008), the officers will rotate. Jeff LeMarca will be the chair, Bill Cantor will be the vice-chair and Lesley Varga will be the secretary.

The following new PES SB members were announced:

John Gaggne
Chris Searles
Ed Amato
Paul Hectors

5. Technical Activities

Panel Sessions - A discussion was held on possible panel sessions for the next meeting. After voting from a broad selection of topics, the following panel session topics were chosen:

Dry out and thermal runaway – Pete Demar - Chair
Battery and Cell Charging – Ed Rafter - Chair
6. **Site Selection Committee**

Bob Fletcher  
Winter 2009 – Atlanta, GA - Dan McMenamin  
Summer 2009 - Sonoma Valley / county in California (north of San Francisco)  
Winter 2010 - San Diego, CA – Bansi Patel

See the Web Site for more information & other possible future locations.

Winter 2009 Meeting details:  
February 1-5, 2009  
Atlanta Airport DoubleTree Hotel  
3400 Norman Berry Drive  
Atlanta, GA 30344  
(404) 763-1600  
Make reservations by December 24th, 2008  
~$161/night

7. **New Business**

Steve Clark presented information concerning joining working groups using the IEEE MyBallot system.

Jim McDowall recommended Jay Chamberlain for Honorary status – Approved unanimously

O&P manual – The O&P manual was collapsed to three pages by Bob Fletcher. The committee approved the changes unanimously.

Jim McDowall delivered a presentation from H. Giess, who is the chair of the IEC TC-21 subcommittee. They are looking for coordination with PES-SB. For more information:  

At this time, the meeting was recessed.

Working groups were convened for standards processing. The working groups meeting are P450, P485, P1187, P1189, P1491, P1635/200, P1657, P1679, the Nuclear Power Working Group, and the Battery Definitions Working Group.
IEEE PES STATIONARY BATTERY COMMITTEE

Tuesday, January 22nd

Working Group meetings continued.

Wednesday, January 23rd

Working Group meetings continued.

Thursday, January 24th

Working Group meetings continued.

The full committee was re-opened to discuss progress of the working groups and sub-committees.

Committee and working group progress and action items are listed in their respective minutes.

At this time the meeting was adjourned.

Respectfully submitted,
William Cantor
Instructions for the WG Chair

- At Each Meeting, the Working Group Chair shall:
- Show slides #1 and #2 of this presentation
- Advise the WG membership that:
  - 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 disclosure of patents which may be essential for the use of standards under development is encouraged;
  - Disclosures made of such patents may not be exhaustive of all patents that may be essential for the use of standards under development, and that neither the IEEE, the WG, nor the WG Chairman ensure the accuracy or completeness of any disclosure or whether any disclosure is of a patent that, in fact, may be essential for the use of standards under development.
  - Instruct the WG Secretary to record in the minutes of the relevant WG meeting:
    - That the foregoing advice was provided and the two slides were shown;
    - That 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;
    - Any responses that were given, specifically the patents and patent applications that were identified (if any) and by whom.
IEEE-SA Standards Board Bylaws on Patents in Standards

6. Patents
IEEE standards may include the known use of essential patents and patent applications provided the IEEE receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard [essential patents]. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent or patent application becomes known after initial approval of the standard). This assurance shall be a letter that is in the form of either:

a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed IEEE standard against any person or entity complying with the standard; or
b) A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

This assurance shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.

Inappropriate Topics for IEEE WG Meetings
- Don’t discuss the validity/essentiality of patents/patent claims
- Don’t discuss the cost of specific patent use
- Don’t discuss licensing terms or conditions
- Don’t discuss product pricing, territorial restrictions, or market share
- Don’t discuss ongoing litigation or threatened litigation
- Don’t be silent if inappropriate topics are discussed… do formally object.

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/board/pat/index.html.

This slide set is available at http://standards.ieee.org/board/pat/pat-slideset.ppt