1. **Introductions**
   Samuel Norman called the meeting to order at 08:00.

The PES Stationary Battery Committee thanks Curtis Ashton for organizing the meeting and thanks Qwest for their support of the meeting.

A motion was made by Curtis Ashton to accept the minutes from the Irvine meeting. The motion was seconded by Bansi Patel and carried.

Of the 53 voting members, there were 35 members present. 20 guests attended for a total of 55 attendees. Samuel announced and welcomed the following new members:

- Dan McMenamin
- Jerry Meyers
- William McCoy
- Samuel Aguirre

2. **Standards and Working Group Status**

   Jose Marrero 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>2003</td>
<td>Discussion this meeting - Review for possible PAR.</td>
</tr>
<tr>
<td>484</td>
<td>Vented Lead Acid Installation</td>
<td>LaMarca</td>
<td>2003</td>
<td>Was approved and published in 2003. No action at this time.</td>
</tr>
<tr>
<td>485</td>
<td>Lead Acid Sizing</td>
<td>Fletcher</td>
<td>1997</td>
<td>Reaffirmed in 2003. Par has been submitted and approved. Working group will continue this meeting.</td>
</tr>
<tr>
<td>PAR # / WG</td>
<td>Subject</td>
<td>Chair</td>
<td>Last Issued</td>
<td>Status</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------</td>
<td>--------</td>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1115</td>
<td>NiCad Sizing</td>
<td>McDowall</td>
<td>2000</td>
<td>Approved in 2000. Will be going for reaffirmation this year, pending discussion of IEEE 485 potential changes.</td>
</tr>
<tr>
<td>1184</td>
<td>UPS Battery</td>
<td>Patel</td>
<td>1994</td>
<td>Out for ballot. WG working this meeting-to prepare for resubmittal. Par expires at the end of this year.</td>
</tr>
<tr>
<td>1187</td>
<td>VRLA Installation</td>
<td>Davis</td>
<td>2002</td>
<td>Published in 2002. No action at this time.</td>
</tr>
<tr>
<td>1375</td>
<td>Battery Protection</td>
<td>Epstein</td>
<td>1998</td>
<td>Document was recently reaffirmed. Working group reviewing document to determine if revision is needed.</td>
</tr>
<tr>
<td>1491</td>
<td>Battery Monitoring</td>
<td>Cotton</td>
<td>Draft</td>
<td>Document approved and submitted to RevCom for approval.</td>
</tr>
<tr>
<td>1578</td>
<td>Spill Containment</td>
<td>Taylor</td>
<td>Draft</td>
<td>Been balloted. Going out for recirculation.</td>
</tr>
<tr>
<td>P200 - ??</td>
<td>Ventilation Document</td>
<td>Clark</td>
<td>Draft</td>
<td>Working Ventilation Document – Joint document with ASHRAE. Joint WG with ASHRAE this meeting. PAR is needed. Logistics were worked out to prepare joint document with ASHRAE. To meet ASHRAE requirements, document needs approval within two years. Document is progressing and will meet this week.</td>
</tr>
<tr>
<td>1657</td>
<td>Technical Qualification</td>
<td>Ashton</td>
<td>Draft</td>
<td>Technical Qualification –WG meeting this week.</td>
</tr>
<tr>
<td>1660</td>
<td>Battery Cycling</td>
<td>Corey</td>
<td>Draft</td>
<td>Battery Cycling Applications. Will work on this document this meeting.</td>
</tr>
<tr>
<td>1725</td>
<td>Cell Phone</td>
<td>Latham</td>
<td>Draft</td>
<td>Cell Phone Battery WG – work in progress</td>
</tr>
</tbody>
</table>
IEEE PES STATIONARY BATTERY COMMITTEE

<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></td>
<td>Battery</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nuclear Power WG -- Chair: Sam Shah
Discussions regarding the following will occur this meeting: Risk Based Tech Specs and Testing Batteries while in Mode 1; Testing Requirements of Replacements for Class 1E Applications; Battery Expanders / Platinum Addition; Battery Trending; and a general discussion of plant issues will occur this meeting.

The Battery Definitions WG – Chair: Steve McCluer
Steve reported that the group has met several times and is making progress. They will be meeting this meeting in evening sessions.

Working Group Chairs should submit their drafts and minutes to the Web Master, Jim McDowall, for posting on the Web site private area.

3. Interpretations report.
One explanation request (John Bonner) for IEEE-450 was processed.

4. Coordination
Jay Chamberlain discussed SCC21. They met in Scottsdale, AZ in February. They are working on a testing document for hybrid systems. Also working on maintenance and installation of lead acid and sizing for lead acid batteries as well as system sizing standards.

Jerry Meyers discussed activities in the Network Interface Power Protection. Had a meeting in February - battery enclosures standard has been balloted and comment resolution will occur at next meeting.

Garth Corey discussed the technical panel session that was sponsored by SBC at the PES annual meeting in San Francisco. A request was made for a volunteer to sponsor the session at the meeting at Montreal.

Samuel Norman discussed the addition of a committee on Wind Power and Energy. Garth Corey will be our liaison to that group.

IEC - Jay Chamberlain discussed the efforts at the IEC standards development. More support is needed in providing input to the vote the United States has.
ASHRAE – Steve McCluer discusses the joint meeting with ASHRAE - document hope to be available by end of 2006. Legal issues were primary concerns – who owns the intellectual property, who receives the money, etc.

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:

Discharge testing - tips and techniques – Ramesh Desai as chair.
UPS and Battery System Architecture – Ed Rafter as chair.

6. Site Selection Committee

Archie Bell and Steve Clark will be sponsoring and organizing the winter meeting in 2006 at the Omni, Corpus Christi.

Summer of 2006 – Charlotte, North Carolina with Harold Priestly sponsoring.

Looking for volunteers for 2007 and beyond.

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

Balance in the operating funds account is approximately $400.

7. New Business

Jim McDowall gave a presentation on the recommendations of the task group Qualification of Advanced Battery Technologies. Jose Marrero made a motion to establish and sponsor the development of a document (and associated working group) titled “Recommended Practice for the Characterization and Evaluation of Emerging Battery Technologies in Stationary Applications – PAR 1679.” The purpose of the document is to provide a format for the characterization of emerging battery technologies in terms of performance, service life and safety attributes. This format will provide a framework for developers to describe their products. The resulting information will assist users in evaluating the possible application of emerging battery technologies.

Wayne Johnson seconded the motion. The motion passed with 31 affirmatives, 0 negatives and 0 abstentions.
IEEE PES STATIONARY BATTERY COMMITTEE

Samuel Norman discussed the CD ROM collection of Battery Standards that is now available – SE135. It includes 11 of our documents, 5 photovoltaic standards, IEEE 1625 is included and 8 notable technical papers.

Samuel Norman provided a presentation on My Ballot, the new balloting method required by IEEE. He noted that the PAR system will be moved to something similar to My Ballot within 2 years.

A brief presentation was provided by Samuel Norman on the current Patent Policy from IEEE. It was noted that the slides (text attached to these minutes) are to be shown and briefly discussed at the beginning of each Working Group meeting.

At this time, the meeting was recessed.

Working groups were convened for standard processing. The working groups meeting are P450, P485, P535, P1184, P1188, P1578, P1635, P1657, Emerging Applications & Technologies Subcommittee, the Nuclear Power Working Group, and the Battery Definitions Working Group.

Tuesday, June 28

Working Group meetings continued.

Wednesday, June 29

Working Group meetings continued.

Thursday, June 30

Working Group meetings continued.

11:30 am: 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,
Robert Fletcher
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.
Slide 1

**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.

Slide 2

**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](http://standards.ieee.org/board/pat/index.html).

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