I. Call to order
- JM Torres called to order the regular meeting of the C37.301 at 4:15 PM on October 16, 2018 at Marriot Downtown Room Trianon A&B.

II. Roll call
- JM Torres conducted a roll.
- Members: 9 of 11 members were present
- Guest: 29 Guest participated
- Quorum: Yes (6 needed)
- Total: 29

III. Patent declaration
- None identified.

IV. Review & approval of agenda
- Approved – Motion M. Wactor, Second D. Hook, no objections.

V. Review & approval of minutes from last meeting (S18)
- JM Torres reviewed the minutes and gave a status update.
- Approved – Motion M. Wactor, Second T. Woodyard, no objections.

VI. Review PAR
- The status of PAR was briefly discussed and the PAR was reviewed. Approval date was noted as YR 2017 and expiry is YR 2021.

VII. Review of current membership and recognizing new members
- 9 of 11 members were present
- 2 new members (Mr. Robert Foster & Mr. Albert Livshitz) were added.
- Total member count is 13.

VIII. Call for a volunteer for the position of Secretary
- No volunteers identified during the meeting

IX. Update on IEEE STD4- HVTT work on Partial Discharge
- S. Parsi gave a brief update; HVTT has not made notable progress on this topic or held meeting since the last meeting in Jacksonville FL. Next meeting is planned for the week of Oct 22, 2018 in Orlando. S.Parsi will be present.

X. Discuss IEC copy write issues and new adoption limitations
- Previous C37.301 was an adoption of the IEC 60270. IEC had given consent to this. As per Erin Spiewak of IEEE, we can no longer adopt the IEC standard. We may be granted copy write permissions of up to 10%.
- This means that the information specific to IEC should just be referred to the said standard and the application guide relevant to switchgear be specifically written; this means that the new C37.301 will be a mostly new standard, requiring significant work.

XI. Discuss work process and file sharing
- Need for common workspace and document dump location was discussed.
- Members recommended IEEE desktop tool. **Action S. Parsi** to look into this and send guidelines to the members

XII. Review individual equipment classes/ stakeholders that the WG would like to address
- WG agreed to that the PD standard should address the needs of the individual equipment classes, hence input and feedback from individual WGs will be needed.
- The following equipment classes were identified. It was noted that the chair assignments noted below were not up to date and an update is needed. **Action M. Wactor & S. Parsi**
  - Common requirements → C37.100.1 → Dave Stone
  - HV CB → C37.09 → Xi Zhu
  - Circuit switchers → C37.016 → Peter Meyer
  - HVGIS → C37.122 → Ryan Stone
  - MV GIS → C37.20.9 → Eldridge Byron
  - AC HV air switch → C37.30.1 → Ken Harless
  - Standard Requirements for Overhead, Pad Mounted, Dry Vault, and Submersible Automatic Circuit Reclosers and Fault → C37.60 → Dave Stone
  - Standard for Pad Mounted, Dry Vault, Submersible Fault, and Overhead Fault Interrupters for alternating current systems up to 38 kV → C37.62 → Antone Bonner
  - Standard Requirements for Overhead, Pad-Mounted, Dry-Vault, and Submersible Automatic Line Sectionalizers for AC Systems → C37.63 → Vacant
  - Requirements for Oil-Filled Capacitor Switches for AC Systems (1kV to 38kV) → C37.66 → Harry Hirz
  - IEEE Standard for Metal-Clad Switchgear → C37.20.2 → Vacant
  - IEEE Standard for Metal-Enclosed Intermittent Switchgear (1 kV-38 kV) → C37.20.3 → Vacant
  - IEEE Standard for Indoor AC Switches (1 kV to 38 kV) for Use in Metal-Enclosed Switchgear → C37.20.4 → vacant
  - IEEE Guide for Testing Metal-Enclosed Switchgear Rated Up to 38 kV for Internal Arcing Faults → C37.20.7 → Micheal Wactor
  - IEEE Standard for Metal-Enclosed Bus → C37.23 → Vacant
IEEE Standard for the Qualification of Switchgear Assemblies for Class 1E Applications in Nuclear Power Generating Stations → C37.82 → Dave Riffe

To be added: C30.1, C37.122, C37.74, C37.04, Generator CB.

XIII. Identify key areas of concern

- WG agreed to address the following topics in the standard. It was noted that we are in early stages of brainstorming and the topics can be merged, modified, added or deleted after some deliberation.
  - Qualification, production, commissioning & maintenance requirements
  - Acceptance criteria for each class of equipment
  - Localization and assessment
  - Assessment based on insulation type
  - PRPD Pattern Recognition
  - Test equipment setup up and blocking impedance for filtering
  - Clearance requirements for PD free setup
  - Filtering and Signal processing
  - Environmental effects on results
  - Sensitivity
  - Background noise floor
  - Coupling methods
  - Applied voltage frequency (0.1 Hz VLF, near Power Frequency 20-300Hz)
  - Instrument transformers
  - Pre stress voltage and duration
  - Measurement frequencies
  - TEV technology overview and limitations
  - Acoustic measurements
  - Calibration
  - External corona suppressants
  - Ultra-High-Frequency(UHF) measurements

XIV. Work assignment identification

- All members and guests were requested to perform a document search and forward all relevant or interesting information to be uploaded in the shared work space. Attention to copy write may be needed. Action all members

- It was noted that the standard would need significant contribution from test equipment manufacturer as many of the new technologies developed in the last 10 years have not been mentioned in the standards.

- The following manufacturers were named and others will be added at a later date:
  - Omicron
  - Megger
- Action S. Parsi to reach out to appropriate technical people in the above mentioned companies and invite their representatives to attend the meetings and/or contribute
- It is expected that the some write up will be done prior to the first web meeting in Jan 2019

XV. Web meeting date identification
- It was noted that there is a significant amount of work to be done to achieve the objectives. In order to remain on track, in addition to the two on location meetings per year, four short web meetings will also take place. Meetings will be hosted via the IEEE Joinme platform.
- Web meeting 1: Week of January 7, 2019. An email will be sent to the 13 members to select a date & time and upon confirmation, the remainder of the involved guests will be invited.
- Web meeting 2: Week of February 25, 2019, same process as above.

XVI. Next in person meeting date & location
- April 28-May 3, 2019 Burlington, Vermont

XVII. Open floor for new business
- None identified

XVIII. Meeting adjournment
- Adjourned at 5:45 PM

XIX. Summary of actions
- S.Parsi to send file sharing and workspace guidelines to WG.
- M.Wactor & S.Parsi to update the stakeholder list.
- All members(guest are also encouraged to participate) to send in all relevant documents.
- S.Parsi to reach out to vendors for input.

Reported by:
Sean Parsi C37.301
C37.301WG Secretary
November 11, 2018
## Attendees

<table>
<thead>
<tr>
<th>Role</th>
<th>First Name</th>
<th>Last Name</th>
<th>Company</th>
<th>10/16/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest</td>
<td>Janet</td>
<td>Ache</td>
<td>G&amp;W Electric</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Edwin</td>
<td>Almeida</td>
<td>Southern California Edison</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Mauricio</td>
<td>Aristizabal</td>
<td>ABB</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Michael</td>
<td>Boulus</td>
<td>PSE&amp;G</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Stephen</td>
<td>Cary</td>
<td>ABB</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Frank</td>
<td>DeCesaro</td>
<td>Eaton’s Power Systems Division</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Jeffrey</td>
<td>Door</td>
<td>The H-J Family of Companies</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Karl</td>
<td>Fender</td>
<td>Southern States LLC</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Robert</td>
<td>Foster</td>
<td>Megger</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Christopher</td>
<td>French</td>
<td>Eaton Corporation</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Paul</td>
<td>Gingrich</td>
<td>AZZ Switchgear Systems</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Daniel</td>
<td>Hook</td>
<td>Western Electrical Services</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Rahul</td>
<td>Jain</td>
<td>S&amp;C Electric Company</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>David</td>
<td>Lemmerman</td>
<td>PECO/Exelon</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Albert</td>
<td>Livshitz</td>
<td>CE Power Solutions</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Stephanie</td>
<td>Montoya</td>
<td>Southern California Edison</td>
<td>X</td>
</tr>
<tr>
<td>Vice-Chair</td>
<td>Sean</td>
<td>Parsi</td>
<td>Kinectrics</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Pathik</td>
<td>Patel</td>
<td>Duke Energy</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Mark</td>
<td>Pattison</td>
<td>H-J Family of Companies</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>John</td>
<td>Phouminh</td>
<td>PEPCO HOLDINGS, INC.</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Brian</td>
<td>Roberts</td>
<td>Southern States, LLC</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Tim</td>
<td>Rohrer</td>
<td>Exiscan</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>James</td>
<td>Ruebensam</td>
<td>S&amp;C Electric Co.</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Sushil</td>
<td>Shinde</td>
<td>ABB Inc.</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Don</td>
<td>Steigerwalt</td>
<td>Duke Energy</td>
<td>X</td>
</tr>
<tr>
<td>Chair</td>
<td>Jean-Marc</td>
<td>Torres</td>
<td>Eaton Corporation</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Michael</td>
<td>Wactor</td>
<td>Powell Industries, Inc</td>
<td>X</td>
</tr>
<tr>
<td>Member</td>
<td>Jeff</td>
<td>Ward</td>
<td>Doble Engineering Company</td>
<td>X</td>
</tr>
<tr>
<td>Guest</td>
<td>Terrance</td>
<td>Woodyard</td>
<td>Siemens Industry Inc.</td>
<td>X</td>
</tr>
</tbody>
</table>