## **D9 Working Group**

# IEEE P1818 - Guide for the Design of Low Voltage Auxiliary Systems for Electric Power Substations

Nashville – October 7, 2014 Tuesday, 1:00 p.m. – 5:00 p.m.

Chair: Hanna E. Abdallah

Vice Chair: Joseph Gravelle

Secretary: Radoslav Barac Technical Editor: Chack Haar

## **Preliminary MEETING NOTES by Joe Gravelle**

Please send updates to these notes to Joe Gravelle by October 15, 2014.

# 1. Introduction of guest and members:

There were 18 of 29 members and 17 guests present at this meeting.

# 2. Portland meeting notes review and approvals:

Chair has mentioned that PAR has been extended to December 31, 2016.

## 3. Chair reviewed past assignments and new assignments for clause 4 as follows:

Christian Robles, Josh Berkow, and Deb Longtin volunteered to review and update the list of definitions.

Tom Proios will upgrade clause 4.1.1 (his name was misspelled in Portland notes so he claims he thought someone else was assigned to this.

**Bruce Largent will review 4.2.2** 

Nate Postma will review 4.3.3

Hanna Abdallah will check figure in 4.4 and send original to Chuck Haar

Zack Hoffmann will update 4.6 – Transfer switch

Steve Brown sent update on panelboards with no clause number. He will update the correct clause 4.8 and send to Chuck Haar.

Mike Chavis sent update of 4.9 to Chuck Haar approximately one hour prior to this meeting. Hanna described his expectation of a thourough detailed protection from source to load and everything in between.

### Clause 5

**Discussion on DC panelboards** 

Updates are needed for all figures in Clause 5. Don Wengerter volunteered to update the figures and sent the original documents to Chuck Haar.



Chuck Haar indicated we need to wrap up the documentation in this guide by May 2015 in order complete balloting process to meet the PAR deadline.

15 minute Break

Chuck Haar took over the projector and started with reviewing the IEEE Patent Slides

Then he reviewed the latest draft of the guide. The following assignments were made:

Joe Gravelle will provide an introduction to the guide after Chuck Haar sends him the template.

Sashi Patel will update the Normative References pending assistance or guidance. Chuck Haar agreed to provide Sashi guidance in this. Everyone who is assigned a clause should send Chuck suggestions of what they think should be included in the normative references for the clause they wrote.

**Bruce Largent will update the Definitions** 

James Purcell will update 4.4

Hanna Abdallah will send original figure 1 to Chuck Haar

Chuck Haar will update 4.0 & 4.1 with correct descriptions to the figures.

Tom Proios will update 4.1.1

Bruce Largent will update 4.14 & 4.15

Clause 4.2 looks clean except Chuck needs original documents for figures

DJ Moreau will write update to 4.3 – Need description of non essential load. Hanna and Nate Postma will review 4.3 after DJ updates.

Remove 4.3.3 and 4.3.4

Sashi emailed 4.4 to Chuck about 1 hour prior to meeting Chuck will update guide

Jason Hawkins will review 4.5 & 4.6

Brian Farmer will review and update 4.5.3.1 – Jim Purcell will review

4.5.3.1.a7 change to misc. inverters

**Delete figure 4** 

Reference figures 5 – 8 in place of figure 4

Hanna will send link to ABB handbook to Chuck and will send original documents for figures 5 – 9.

Zach Hoffmann will rewrite 4.6 Christian Robles will review

Steve Brown will add correct clause number to the updated section 4.8 that he wrote and send it to Chuck Haar and James Purcell for review.

Mike Chaves will send update of 4.9 to Chuck Haar

Brian Farmer will update 4.11 – header names need updates



Delete 4.11.6 - Chuck Haar

Chuck will delete the sections marked X in latest draft.

Clause 5

Don Wengerter will update figures in clause 5 and send original documents to Chuck 5.2 i) Remove Pumps

Don will fix figure 38 and send original to Chuck

Chuck will correct reference to AC section

Joe Gravelle will update figure 45 and send original to Don

(Remove 3 step and 2 step-tier racks from figure 45)

Delete open item 5.9.3

Chuck will update references.

#### **Annex**

After lengthy discussion, a motion was made and seconded that we will not provide a comprehensive (complete and thorough AC / DC design example in the Annex due to pending deadline for PAR. This almost unanimously was approved.

Section specific examples could be included in Annex if time allows.

In order to prepare this guide for ballot the following timelines were made:

Chuck Haar will update the draft and post on website by October 15, 2014

All assignments to be sent to Chuck Haar by December 2<sup>nd</sup>, 2014

Chuck will assemble all comments into a new revision by January 15, 2015 and send to working group for review with the template for ballot commnets.

The comments on this draft will be returned to Chuck and Hanna by April 15, 2015.

**Next meeting – Annual meeting in Minneapolis – May 2015.** 

The meeting was adjourned.

