

IEEE P1159.1 Guide for Recorder and Data Acquisition Requirements for Characterization of Power Quality Events

- Meeting Minutes -

Joint Meeting of IEEE Distribution Subcommittee and IEEE SCC22
Las Vegas, Nevada, USA

Orleans Hotel and Casino
Monday, February 21, 2000, 1:30 to 2:30 PM

The IEEE P1159.1 Task Force last met on February 21, 2000 at the Orleans Hotel and Casino in Las Vegas, Nevada, USA from 1:30 to 2:30 PM. It met immediately following the IEEE 1159 Working Group meeting, which was held from 1:00 to 1:30 PM.

1159 Working Group Meeting

An important development to note from the 1159 Working Group Meeting is that Alex McEachern of WPT will now join Roger Bergeron at the helm of the P1159.1 task force. They will act as cochair. Murray Slater of Kreiss Johnson Technologies will take on the role of P1159.1 secretary from Dan Sabin. (McEachern and Sabin are both affiliated with the same corporation.)

Call to Order and Minutes from Last Meeting

The meeting was called to order by the task force cochair, Roger Bergeron, at 1:30 PM on February 21, 2000. Dan Sabin, who acted as secretary for the last meeting, presented the minutes from that Edmonton meeting

Review of Current Project Draft by Cochair Bergeron

Bergeron began the meeting with a review of the project goals for P1159.1. He also reviewed specific comments that he received since the last meeting. Some key points from his presentation are presented in the following summary:

- His presentation explained that the project's chief goal is to provide the technical measurement requirements for each type of the twenty-four disturbance category types identified in IEEE Std. 1159-1995.
- The guide must describe data acquisition attributes.
- Another purpose of the task force is to gather the measurements necessary for characterization or identification.
- The P1159.2 guide must explain the difference between precision and accuracy. For example, an example of accuracy would be that "the instrument should remain within

the limits 100% of the time.” An example of precision is “the instrument should stay within the limits 67% of the time.”

- Different classes of devices must be addressed (i.e., “Class A” and “Class B”).
- Input and voltage requirements must be addressed.
- The following phenomena must be addressed: transients, short duration variations, long-duration variations, voltage unbalance, waveform distortion, voltage fluctuations, and power frequency variations.
- Bergeron thinks that there needs to be some simulations performed by a task force member that can determine the effect on the length of a cable that does not match the impedance at the meter’s input. A comment on this request from a task force member was that the transients to be concerned about are not just in the megahertz range but also in the kilohertz range.
- The guide must address performance test and calibration procedures. There are some procedures being developed by IEC WC9 that allow one to determine if a meter is capturing harmonic analysis correctly. Bergeron feels that we need more information on how to perform the accuracy tests.

Discussion of the Draft

A task force member requested that Table 6.1 of Draft 0.1 of P1159.1 be explained in more detail. Table 6-1 comes directly from IEC draft document being developed by IEC 77A Working Group 9. The cochairs explained Table 6-1. In this table, quantities being evaluated for accuracy are measured under a variety of stressful conditions. Some of the task force members felt present that this was not clear in the current draft. Bergeron explained that if anything was not clear, then it could be resolved with a draft rewrite.

Report from Alex McEachern, Cochair

McEachern praised Bergeron for his work to date that has drafted an excellent technical document. McEachern feels that we are at a stage that would require us to start gathering the votes to pass the document. He polled the attendees to determine how many people had read the latest drafts and was distressed to note that there were many who had not done so.

Key Reviewers

McEachern reaffirmed the involvement of key reviewers for P1159.1 who were present. Peter Shah will replace Henry Pinto as a P1159.1 team member. Afroz Khan was added as a key reviewer member. The present list of key reviewers is listed in Table 1.

Table 1: List of Key Reviewers for P1159.1.

- Richard Bingham, Dranetz-BMI (reaffirmed)
- Andy Dettloff, Detroit Edison Company (reaffirmed)
- Afroz Khan, Reliable Power Meters (added)
- Larry Morgan, Duke Power (reaffirmed)
- Scott Peele, Carolina Power and Light (reaffirmed)
- Peter Shah, Metrosonics (added)
- Greg Rauch, Schweitzer Engineering Laboratories (reaffirmed)

- Dan Sabin, Electrotek Concepts, Inc. (reaffirmed)
- Gil Hensley, Pacific Gas and Electric (not present)
- John O'Neil, Commonwealth Edison (not present)
- James Wikston, Hatch Associates (not present)

Proposed Schedule

Bergeron proposed a schedule for this year's work on the next draft of P1159.1, which received nodding approval from the task force members present.

- Latest Additions: January to April 2000
- Comments and Corrections: May to October 2000
- Final Draft: October to December 2000

Minutes Submitted on February 26, 2000 by Dan Sabin, Electrotek Concepts, Inc.