

Meeting Minutes

System Protection and Control Subcommittee

April 24, 2017 | 12:00 p.m.–5:00 p.m. Central

April 25, 2017 | 8:00 a.m.–12:00 p.m. Central

Oncor Electric

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Fort Worth, TX 76102

Agenda Approval

Prior to the agenda's approval the following revisions were made;

- Steven Hataway requested time to discuss a unique protection system operation scenario to the group.
- A discussion topic around PRC-025 implementation guidance was added per the PC suggestion.
- It was requested that the TPL standards changes be discussed if time permitted. The meeting ended prior to this topic being discussed so it was deferred to a future meeting.
- It was requested that the two SARs for PRC-024's inverter-based alternative be reviewed if time permitted. The meeting ended prior to this topic being discussed so it was deferred to a future meeting.
- It was requested that the group have a discussion around the possibility of proposing a formal definition for the terms "Trip", "Momentary Cessation", and "Protection/Protective Relay" if time permitted. The meeting ended prior to this topic being discussed so it was deferred to a future meeting.
- It was requested that the group review the documents posted publicly and remove any that were either no longer applicable or outdated if time permitted. The meeting ended prior to this topic being discussed so it was deferred to a future meeting.

Membership and Position Changes

1. Changes in Membership

Steven Hataway was confirmed into the group as the new FRCC primary representative. Philip Winston transitioned from the SERC primary representative position to the SERC alternate representative position. Brian Kasmarzik was confirmed into the group as the new SERC primary representative. Samuel Francis will no longer be participating in the group as the TRE primary representative due to his retirement on April 30, 2018. Glenn Hargrave was confirmed into the group as the new TRE primary representative. Armin Klusman was confirmed into the group as the new TRE alternate representative.

John Babu's confirmation was deferred to a future meeting due to his and Alex Echeverria's inability to attend.

Jack Norris confirmed that Louis Guidry would maintain a position on the NERC SPCS following the dissolution of SPP-RE. The exact position title is unavailable at this time.

PRC Implementation Guidance Documents

1. PRC-019 Implementation Guidance Document

Jason Espinosa provided a brief update on the progress of the PRC-019 Implementation Guidance document. A meeting for the development of the PRC-019 Implementation Guidance document was also held following the SPCS meeting.

2. PRC-024 Implementation Guidance Document

Rich Bauer discussed the current state of the PRC-024 Implementation Guidance document. There were some phrasing issues within the document that needed addressed, however once they were addressed the document was approved by the PC in January, 2018 via email vote. The document has been submitted to the ERO as potential implementation guidance, still awaiting their feedback and/or approval.

Additionally there was discussion around whether or not PRC-024 should be applied to inverter-based generation or if a separate inverter specific standard should be written. The possibility of a SAR be formally submitted by the SPCS in regards to the issue, using the implementation guidance document team's initial proposal as a starting point. Review of the SAR drafted by the implementation guidance document team was tabled to be included in a near-future meeting agenda.

3. PRC-025 Implementation Guidance Document

The SPCS discussed the option of creating a PRC-025 Implementation Guidance document but determined that the information that would form the content of said document already existed to a sufficient extent within the standard itself.

MIDAS Documentation Group

1. Explanation of Group's Purpose

Jack Norris explained to the SPCS that the MIDAS documentation group would be in charge of drafting a set of data reporting instructions (DRI) for the MIDAS reporting as outlined in the 1600 data request. If the group is determined to be an ongoing group they would also be tasked with the various duties of maintaining a 1600 data request including, but not limited to; providing regular updates to the DRI, analyzing and providing suggestions for improvements on metrics created from the data, assisting NERC in the creation of reports using the data, and making suggestions for improvement of the 1600 as necessary. A few members questioned why these responsibilities did not fall onto the SPCS. NERC does not feel that

the responsibilities fit well within their expectations of SPCS and believes that a working group, similar to those put together for other 1600 data requests, would better fit the task. Members of the SPCS have been invited to be involved in the MIDAS group and are asked to be prepared to report on the group's activities to the SPCS. Currently within the NERC committee structure the group is likely to fall under either the Performance Analysis Subcommittee (PAS) or the SPCS, while reporting out to and receiving recommendations from the group which it does not fall under.

2. NERC Follow-up Information on Group's Progress

It was requested that NERC provide additional information on the MIDAS group's current position, efforts, and timing expectations. The items below provide highlights on where the group currently stands and what has been done by NERC and the ERO at this point;

- NERC has created documents that can be used as a starting point until DRI has been completed.
- We have been working with WECC on their monthly Misoperations webinar series, and this information will be used in the DRI project.
- A list of suggested industry participants has been put together from the ERO Misops group's recommendations and NERC SPCS volunteers and a formal request is into the NERC PC to make this a working group project (on June's agenda)
- ERO MIDAS group will continue working on this to keep momentum until PC approves an industry stakeholder group
- Regional documents regarding Misoperation reporting have been requested.
- NERC is working on creating a sort of DRI template to allow for better consistency between applications, better readability, and quicker creation of future DRIs (PV, GMD, etc.)

Delayed Current Zero Crossing Discussion

The SPCS discussed the potential risk of delayed current zero crossing to the BES. It was determined that an official document from NERC, white paper or lessons learned, was not the correct course of action at this time.

PC Proposed Risk Work Plan Items

1. **The ERO Enterprise and industry need to provide more effective guidance to evaluate and improve controllable device settings and how the interaction between these devices can affect BPS reliability, particularly during transient conditions.**

It is the SPCS's opinion that the items highlighted in the report are being adequately addressed by one or more groups at this time.

2. Recognize the risks of shorter technology lives for protection and control system components and the need to implement replacement programs that do not impact BPS reliability.

The SPCS recognizes that microprocessor technology tends to have a more frequent rate of replacement than solid state technology. However, the group cautions against identifying this as being a definitively shorter life-span as replacements are not generally due to complete failure. Potential reasons for replacement that were identified include;

- Replacement due to advancing technology being available
- Replacement rather than repair for partial failure due to advancing technology or possible savings
- Increased human interfacing leading to higher human error susceptibility
- Full equipment failure

The SPCS believes that entities are aware of the reasons listed and have plans in place to address them as necessary. As such the group does not feel that NERC needs to address this matter at this time. If a document to the industry is what is being requested the group suggests an industry accessible body external to NERC produce said document.

3. NERC should work with industry experts and the forums to promote the development of industry guidelines on protection and control system management to improve performance.

The SPCS feels they address this risk as a group of industry experts that are highly involved with NERC as well as industry-wide forums and conferences. Additionally there are PRC standards and associated guidance documents which cover a variety of the issues requiring management systems to be in line with the standards.

4. The ERO Enterprise should determine whether enhancements are required to the current family of protection and control (PRC) standards or related NERC guidance materials.

The SPCS believes these issues are addressed when identified by the ERO Enterprise. Additionally the group feels the ERO Enterprise is performing adequately in determining when these issues arise and will work with the ERO Enterprise should they feel a gap ever exists.

5. NERC should encourage industry and trade associations to identify skill gaps and develop recommendations to address them (e.g., curricula, programs, industry support, and educational pipeline programs), including those which may be associated with protection and control schemes.

The group feels this is already being addressed by the industry. The only point of potential concern is the use of 3rd party contracting, specifically in regards to commissioning testing on entity-specific configurations.

Feedback on Proposed Protection Generator Model

The comments submitted by the SPCS on the document which NERC provided were reviewed and discussed with the group. NERC staff is going to work on revising the document, taking the feedback into consideration.

Future Meetings

A meeting for either the end of July or the beginning of August was proposed to continue discussion of topics that were not thoroughly covered during this meeting. A poll will be sent out separately to the SPCS to determine the optimal date for said meeting. Depending on the date a location will be determined.

Adjourn