

Meeting Notes

Project 2010-05.2 Special Protection Systems Standard Drafting Team

May 20-22, 2014 | 8:00 a.m. – 5:00 p.m. MT

Xcel Energy
Denver, CO

Administrative

1. Introductions and chair remarks

Gene Henneberg, the chair, brought the meeting to order at 8:15 a.m. MT on Tuesday, May 20, 2014 and welcomed everyone. Each attendee introduced himself. Those in attendance were:

Name	Company	Member or Observer
Gene Henneberg	NV Energy / Berkshire Hathaway Energy	Member
Bobby Jones	Southern Company	Member
Amos Ang	Southern California Edison	Member
John Ciufo	Hydro One Inc	Member
Alan Engelmann	ComEd / Exelon	Member
Davis Erwin	Pacific Gas and Electric	Member
Charles-Eric Langlois	Hydro-Quebec TransEnergie	Member
Robert J. O'Keefe	American Electric Power	Member
Hari Singh	Xcel Energy	Member
Sharma Kolluri	Entergy	Member
Al McMeekin	NERC	Member
Phil Tatro	NERC	Observer
Bill Edwards	NERC	Observer
Syed Ahmad	FERC	Observer
Jonathan Meyer*	Idaho Power	Observer

*attended by teleconference

2. Determination of quorum

The rule for NERC standard drafting team (SDT or team) states that a quorum requires two-thirds of the voting members of the SDT. Quorum was achieved as 10 of the 10 voting members were present.

3. NERC Antitrust Compliance Guidelines and Public Announcement, Email Listserv Policy, and Participant Conduct Policy

Mr. McMeekin reviewed the NERC Antitrust Compliance Guidelines and public announcement, and gave an overview of the Participant Conduct and Email Listserv policies.

4. Review team roster

The team reviewed the roster and confirmed that it was accurate.

5. Review meeting agenda and objectives

Mr. McMeekin reviewed the agenda and noted that the goal is to post the RAS definition and supporting documents by June 12, 2014.

Agenda Items

1. Definition

The SDT reviewed the latest draft of the RAS definition. Many changes were made including the removal of the sub-bullets: Maintain System stability, Maintain acceptable System voltages, and Maintain acceptable power flows. The sentence stating that a RAS is not a Protection System was moved below the bullet list of objectives for clarity. The exclusion list was revised and expanded to include FACTS controllers that remotely switch shunt reactive devices, and controllers that remotely switch shunt reactors and shunt capacitors. The SSR exclusion wording was changed so that it is less specific regarding direct detection methods.

2. FAQ and Implementation Plan

The SDT reviewed the latest draft of the FAQ document in detail and made numerous revisions to the questions and answers. Questions related to extreme events and how the inclusion criteria were determined were deleted. Many changes were also made to the exclusion list.

The SDT reviewed the draft Implementation Plan developed by Al McMeekin and Bill Edwards. After much discussion the plan was set to provide RAS owners a minimum of twelve (12) months beyond the date of approval by a governmental authority to evaluate their current schemes for determining whether they are RAS, based on the new definition. The Implementation Plan also provides owners of newly identified RAS twenty four (24) calendar months beyond the date of approval by a governmental authority to be fully compliant with all standards applicable to the revised definition.

3. Document how our effort affects other standards

Bill Edwards updated the SDT with context information about the use of the term SPS in other NERC standards. A separate document was developed to show this information. It is titled “Uses of “Special Protection System” and “Remedial Action Scheme” in Reliability Standards”.

4. Posting Narrative and Questions

The posting narrative was developed using the background information from the Implementation Plan. Five questions were developed for inclusion on the comment form:

1. Do you agree that using a single term; i.e., RAS, and clarifying its definition will lead to more consistent application of the related NERC Reliability Standards? If not, please provide specific suggestions and rationale.
2. Are there additional corrective actions that should be explicitly included in the proposed definition of RAS? If yes, please provide specific suggestions and rationale.
3. Are there additional objectives that should be explicitly included in the proposed definition of RAS? If yes, please provide specific suggestions and rationale.
4. Do you agree with the exclusion list in the proposed definition of RAS? If not, please provide specific suggestions and rationale.
5. Do you agree with the time frames in the proposed Implementation Plan associated with the proposed definition of RAS? Please provide specific comments in support of your position.

The following assignments were made for team members to develop responses to comments received for each question:

Question 1 – Rob O’Keefe and Gene Henneberg

Question 2 – Charles-Eric Langlois and Bobby Jones

Question 3 – Al Engelman and Davis Erwin

Question 4 – Amos Ang and Hari Singh

Question 5 – Sharma Kolluri and John Ciupo

5. Webinar Preparation

Webinar Assignments (Topics) – Slides will be drafted individually and later combined into one document for the presentation. AI will send the NERC Template to the team. The general categories are as follows:

1. Introduction (AI)
 - a. Background
 - b. SDT Role and members. Member Bio’s?

- c. The SDT started with the Straw-Man definition from SPCS. Describe that the intent of the SPCS document was preserved.
- 2. Existing and proposed definition. Why the change? (**Gene**)
 - a. Proposed definition 3 or 4 slides
 - b. Why use a single term?
 - c. Why the SDT did not include the Classification types.
 - d. For items that were addressed in the SPCS whitepaper, but not in the new definition – mention only the items that may be hot-topics. The SPCS definition was used only as a straw man definition for the SDT.
 - e. The wording of the definition has changed, and as a result, some of the exclusions appear to have been removed, but they are absorbed in the main definition.
- 3. Exclusion List
 - a. A, B, C are within the existing definition of SPS. As a result, they were maintained
 - b. Power swing and UF load shedding: The terminology was changed, but they are being retained as an exclusion
 - c. Autoreclosing: This topic does not require an extensive discussion
 - d. F,G,H: Logic combination to discuss together (**Rob**)
 - e. Undervoltage and UVLS Program Definition and E (**Hari**)
 - f. A,B,D (**John**)
 - g. L, M (**Charles**)
 - h. I,J,K (**Amos**)
- 4. Implementation Plan and Standards Impact (**Bill**)
- 5. Classifications
 - a. Webinar statement: Classification will be addressed in the standards
 - b. Further team discussions on classifications: WECC had informally classified schemes prior to codifying the process. Gene discussed the other region process and classifications. WECC has 260+ schemes. Detailed reviews are 1-2 hours per scheme. Abbreviated reviews around 15 minutes. No beneficial reliability benefits for an exhaustive review for “local” schemes. Within WECC, Local and Wide schemes still require redundancy. There is no real “Benefit” to call it “Local”. Hari described the implications of installing a “Local” RAS where the CIP standard was invoked, and the resulting physical and communication hardening 69kV station resulted in the station being more “secure” than some 345kV stations. Gene said that the approval of the classifications is a necessary prerequisite to changing any CIP standards.
 - c. In the past, Single Point of failure considerations were not consistently applied.

- d. WECC: Local area scheme review may be limited, but it does not relieve the entity from its responsibilities. There are some problems with requiring redundancy on local schemes.
- e. NPCC classification was discussed (Charles). Huge difference in requirements for Type 1 and Type 3. Type 1 always gets reviewed by three groups. A review by the TFCP group is only needed for Type 3's. There is an obligation to prove that Type 3's have no impact (present studies)
- f. WECC is the only region that has one group devoted to RAS review. Other regions have review, but a variety of groups are involved.
- g. Corrective Action Plans discussed (Gene)
- h. Hari believes the Classification topic should be addressed/discussed, and furthermore, does not see the need to have the four types described in the SPCS report. Perhaps three is where we should start. (EL and ES are both "Safety Nets"). If there are no requirement differences between EL and ES, why classify them differently?
- i. WECC Safety Net review and Wide area review follow the same process, but the redundancy requirement is not mandatory for Safety Nets.
- j. Phil discussed his experience of reviewing an event where a single contingency event, (line fault and line trip), cause the operation of three different Type 3 RAS schemes (Coordination of RAS schemes – the operation of 1 caused an increase in the arming quantity of the next scheme, and so on).
- k. Group discussion on the vendor software improvements for RAS modeling. FERC 603: Coordinating RAS. How would an auditor know compliance with the coordination requirement? How would an entity demonstrate coordination? A prerequisite to coordination studies is placing the relays and RAS schemes in the model. We need relay vendor cooperation (algorithm, etc.).

6. Next steps

- a. The target for posting is June 12.
- b. A two-hour industry webinar will be held on June 30 at 1:00 PM Eastern.

7. Future meeting(s)

- a. August 12-14, 2014 | PG&E - San Francisco

8. Adjourn

The meeting adjourned at 3:20 p.m. MT on Monday, May 22, 2014.