C37.17 Study Group Minutes

IEEE STANDARD FOR TRIP SYSTEMS FOR LOW-VOLTAGE (1000 V AND BELOW) AC AND GENERAL PURPOSE (1500 V AND BELOW) DC POWER CIRCUIT BREAKERS

JEFF MIZENER, CHAIRMAN

CLINT CARNE, VICE-CHAIRMAN

Meeting Date: 23 April, 2018
Meeting Time: 10:15AM-11:49AM, Eastern Standard Time
Location: Disney's Contemporary Resort, Orlando, FL

A. Call to order
The meeting was called to order at 10:15AM EST

B. Introductions
Introductions were made by each LVSD member and guest.

C. Approval of agenda
The agenda was approved by acclimation because there were no Nay votes.

D. Approval of the minutes from the previous meeting
The prior meeting minutes were approved by acclimation because there were no Nay votes.

E. Rules and guidelines for conducting working group meetings
The patent slides downloaded from the link below were reviewed. There were no patent claims.
https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.pdf

F. Working group P&Ps
All in attendance were referred to the Switchgear Committee P&P link in the case of procedural questions.
http://www.ewh.ieee.org/soc/pes/switchgear/O-and-P/PES_WG_PP-Switchgear--approved-(2013-09-19).pdf

G. Document status report
- Current document: C37.17-2012
- There is not yet a PAR for this revision

H. New business
- Reviewed the proposed text for Scope and Purpose statements that Jeff had prepared in the PC37.17:
  - Scope –discussed Jeff's proposal of microprocessor-based electronic trip units
  - It was identified that the Purpose is not required, only the Scope is required.
  - Part of the text in the Purpose was a duplicate of the Scope and could be eliminated.
  - The remaining elements of the Purpose were moved into the Scope.
  - It was discussed if electromechanical trip devices should remain in Scope. Decision was to keep in scope.
  - Discussion was had about how detailed the scope should be regarding the protective functions. Decision was to use the words "preferred protective functions"
  - The group agreed to the remove of the Purpose and on the final wording of the Scope

- The draft PAR was reviewed with attention to the wording of the NEED FOR PROJECT section. The text proposed by the Chair was simplified and agreement within the group was reached.
- It was decided to focus on the PAR and leave discussion of what needs updating in the revision for the next meeting.
- Additional items discussed at end of meeting:
  - Allowance for faster tripping times
  - Settings conforming to NERC Standard PRC-025-1 – Generator Relay Loadability (see appendix informative text)
  - The question was raised whether there is something to be gained by looking at how protective relay functionality is specified and documented. The chair responded Yes, but with care. As a former member of the Power System Relay Committee and member of the C37.112 time-overcurrent curve working group, this standard should not restrict the inclusion of defined inverse-time overcurrent curves as defined in C37.112 but should not include the definitions from C37.2 (*Standard for Electrical Power System Device Function Numbers, Acronyms, and Contact Designations*) as these numbers are not well defined.

I. Conclusion

- Will an on-line meeting be required to conclude PAR? No. The PAR text is now complete and must only be submitted.
- Next step: The chair will create a first draft with structure and empty space for test to be added by the WG (after PAR approval).
- Next in-person meeting: October 15, 2018 in Kansas City
- The meeting was adjourned at 11:49am

Meeting minutes respectfully submitted by Clint Carne.

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Attendees:

Clint Carne	Schneider Electric
David Dunne	Schneider Electric
Doug Edwards	Siemens Industry, Inc.
Michael Flack	Southern Company Generation
Keith Flowers	Siemens Industry, Inc.
Lou Grahor	Eaton Corporation
Tom Hawkins	Siemens Industry, Inc.
Daniel Hook	Western Electrical Services
Dan Hrncir	Eaton
Chad Kennedy	Schneider Electric
Michael Lafond	General Electric
James Lagree	Eaton
Jeff Mizener	Siemens Industry, Inc.
Darryl Moser	ABB
TW Olsen	Siemens (retired)
Owen Parks	ABB
Richard Rohr	Powell Electrical Systems
Kevin Sippel	Eaton Electric
Paul Sullivan	DuPont
Bruce Venne	Rockwell Automation
Li Yu	Eaton Corporation
Danish Zia	UL LLC

Information on NERC Standard PRC-025-1 – Generator Relay Loadability:
This standard became enforceable on October 1, 2014 and applies to load-responsive protective relays associated with generation Facilities. Per the text quotef from the standard, it is to be applied at the output of individual wind turbines.
The standard states that "Asynchronous generating unit(s) (including inverter-based installations), or Elements utilized in the aggregation of dispersed power producing resources" shall have a "Phase time overcurrent relay (51) or (51V-R) – voltage-restrained" with "The overcurrent element shall be set **greater than 130%** of the calculated current derived from the maximum aggregate nameplate MVA output at rated power factor (including the Mvar output of any static or dynamic reactive power devices)".