C37.17 Working 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 Carnes, Vice-Chairman

Meeting Date: 19 March, 2018
Meeting Time: 12:00pm-1:00PM, Central Standard Time
Location: On-line meeting

A. Call to order
The meeting was called to order at 12:05PM CST
This is the first meeting so there were no minutes to approve.

B. Introductions
Attendance was taken and all present have been active Switchgear Committee members for some time. Formal introductions were dispensed with as "going around the room" is difficult in on-line meetings. Attendees and their affiliations are listed on the last page of these minutes.

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

D. 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

E. 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

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

G. New business
An open discussion was had with a number of points being raised for potential changes and additions to the document:
- Review and update all document references
- Are the definitions in the document specific enough to stay here or should they be moved to a separate definitions document (C37.100.1)? Tentative consensus is no, they should stay in this document.
- The title names DC breakers 1500V and below and calls out C37.14 as a normative reference which governs DC breakers up to 3200V – is this a discrepancy? Probably not as C37.14 names C37.17 as being normative only for General Purpose (1500V dc and below) breakers.
- Should space be given to the topic of refurbishment in light of the tight integration of trip units a breaker frames which may include proprietary technology that would prevent an aftermarket trip unit from properly functioning? This may be done as an Informative Annex or presented to C37.59 for inclusion there.

- Should the standard address trip unit or trip actuator condition monitoring? Although the trip unit cannot know if the actuator is rendered immobile by contamination (e.g.: cement dust), should it be able to indicate it is no longer connected or continuous? Should the standard require an alarm indication if the trip unit is unable to carry out its protective function?
- Is there a need to cover bench or field testing? An informative annex suggested.
- Are the "…additional internal or external protective functions…" mentioned in the scope in need of further definition? The topic is to be considered further with the note that setting boundaries could be difficult.
- In the definitions section under "direct-acting overcurrent trip system (electronic)", the phrase "Maximum tripping current may be fixed or adjustable and shall not exceed the continuous current rating of the circuit breaker frame" should be revised to make it clear that the pickup setting of short time or instantaneous settings are not restricted and that this refers to whatever governs the 100% rating of the breaker, be it by rating plug or other means.
- Section 5.7 addresses functions which modify the response of the protective functions. Should this section be expanded to include methods for reducing the pickup settings for arc flash mitigation? We are all familiar with L, S, I & G – should a new letter (such as "R") be established to designate general or specific arc flash mitigation features?
- With an eye towards codifying the interactions between trip device and breaker frame, do we want to add text describing the types of interactions? (making current releases, instantaneous overrides, etc.)
- Table 3, which lists the time bands for long time delay phase trip functions, should be scrutinized with the goal of permitting faster trip times under certain circumstances. Ditto for Table 4.

H. Conclusion

- The next deadline for PAR submission to NESCOM is 4 May 2018.
- As the lifespan of this Study Group is intended to be < 6 months, the goal is therefore to have a PAR ready to present to LVSD by the end of the next meeting.
- The group was requested to bring their suggestions for a PAR to the next meeting.
- The next meeting will be at the next Switchgear Committee Meeting, (currently scheduled for 10:15-12:00, Monday April 23)
- The meeting was adjourned at 1:05pm

Meeting minutes respectfully submitted by Jeff Mizener.

Attendees:

Name	**Afilliation**
Ted Burse	Powell Industries
Clint Carne	Schneider Electric
David Dunne	Schneider Electric
Doug Edwards	Siemens Industry, Inc.
Mike Flack	Southern Companies
Keith Flowers	Siemens Industry, Inc.
Dan Hrncir	Eaton
Chad Kennedy	Schneider Electric
Michael LaFond	General Electric
James Lagree	Eaton
Jeff Mizener	Siemens Industry, Inc.
Allan Morse	Siemens Industry, Inc.
Darryl Moser	ABB
Richard Rohr	Powell Industries
Bruce Venne	Rockwell Automation