

Meeting Minutes of Working Group C57.142 Guide to Describe the Occurrence and Mitigation of Switching Oct. 9, 2019 San Diego, CA

Chair: David Caverly
Vice-Chair: Jim McBride
Secretary: Carl Schuetz

Introduction of members and guests

Attendees: 37
Members: 8 of 16
Guests: 29

Verbal call for patent identification

IEEE patent slides 1-4 shown, Result: No patent claim identified

Approval of agenda

Motion to approve: Curtis Frazier
Second: Jim van de Light

Approval of S19 minutes

Motion to approve: Curtis Frazier
Second: Albert Lifschitz

Document distribution

iMeet will contain all relevant documents for the working group.

Document Status and Timeline

Draft 6 (D6) is the current revision level out for comment.
The guide expires in 2020 and the PAR expires in 2021.

Update from Fall Transformer Committee (2019)

Draft 6 contained the most recent Transformer Committee comments.

Discussion of draft 6

Edgar Dullini made a presentation via teleconference call regarding his comments made on draft 6.

Response to slide one from vice-chair; sections are intended to be added that address impulse level voltages across winding terminals and fast rate of rise and uneven voltage distribution in the windings.

While showing slide two, a comment from vice-chair was made that early document revisions didn't include shunt reactor switching. However, at the request of switchgear committee shunt reactor discussion and an example were included.

Comment from the WG was made that over-voltage mitigation should be applied anytime high-frequency breakdowns are considered excessive. Several attendees commented that vacuum switching by itself is not the only switching device type that cause high-frequency transients that

need mitigation. The vice-chair replied that these comments would be discussed in the next Transformer Committee meeting in Jan. 2020.

A WG member commented that a researcher from a test laboratory has opined that vacuum circuit breakers are safe to apply when low inductive currents are switched. The response to this comment was that the comment would be taken back for discussion at the next Transformer Committee meeting. Another comment made by E. Dullini is that his comments apply to the latest draft that was offered for comments.

The vice-chair commented on slide four that other winding excitation possibilities in addition to rapid re-ignitions are possible that cause winding breakdown.

E. Dullini's presentation ended without further comment.

The supporting papers that accompany the presentation comments will be placed on the iMeet site.

The chair reviewed comments recorded on the IEEE comment spreadsheet.

Statement in the text regarding lower reliability of circuit breakers with pre-insertion resistors was recommended by several attendees to be removed and the vice-chair agreed to do so.

Action Items

Copyright infringement possibilities need to be identified and permission sought.

Collect any transformer or shunt reactor switching experiences from switchgear committee.

Remove the statement in the text regarding lower reliability of circuit breakers with pre-insertion resistors.

Next Meeting

TC Charlotte, NC March 22-27, 2020

SC San Diego, CA Oct 6-10, 2019

Motion to adjourn: Jim Van de Light

Second: Curtis Frazier

Attendance in San Diego

Last Name	First Name	Company	Role	Attendance in San Diego
Almeida	Edwin	Southern California Edison	Guest	X
Bosma	Anne	ABB AB	Member	excused
Bryant	Craig	Duke Energy	Guest	X
Bufi	Arben	Hitachi T&D Solutions, Inc.	Member	X
Caverly	David	Trench Ltd.	Chair	X
Chhabra	Mohit	S&C Electric Company	Guest	X
Christian	Michael	ABB	Member	X
Collette	Lucas	Duquesne Light	Guest	X
Collette	Dave	Mitsubishi Electric	Guest	X
Corley	Charles	Eaton	Guest	X
Dullni	Edgar	retired	Guest	X
Dwyer	Bernie	PECO	Guest	X
Fender	Karl	Southern States LLC	Guest	X

Fennell	Howard	Nashville Electric Service	Guest	X
Frazier	Raymond	Ameren	Guest	X
Hall	John	Tennessee Valley Authority	Guest	X
Li	Qian	Powertech Labs INC.	Guest	X
Livshitz	Albert	CE Power Engineered Services	Guest	X
McBride	James	JMX Services, Inc.	Vice-Chair	X
McCord	Neil	KEC Precision	Guest	X
Montoya	Stephanie	Southern California Edison	Guest	X
Natale	Anthony	HICO America	Guest	X
Pellerito	Thomas	DTE Energy	Guest	X
Peterson	Alan	Utility Service Corporation	Guest	X
Phan	Lise	Pacific Gas and Electric Company	Guest	X
Polchinski	Craig	MEPPI	Guest	X
Reyes	Roman	Bechtel	Guest	X
Riffe	Dave	Westinghouse Electric Company	Guest	X
Roberts	Brian	Southern States, LLC	Guest	X
Rogers	Jon	Siemens Energy, Inc	Guest	X
Schuetz	Carl	American Transmission Company (ATC)	Secretary	X
Shinde	Sushil	ABB Inc.	Member	X
Slattery	Christopher	FirstEnergy	Guest	X
Smith	Robert	Retired	Guest	excused
Toolis	Elizabeth	MEPPI	Guest	X
van de Ligt	James	CANA High Voltage Ltd.	Member	X
Venna	Karthik Reddy	Siemens AG	Member	excused
Wen	Jerry	BC Hydro	Guest	X
Westerdale	Matt	Bureau of Reclamation	Guest	X
Zhang	Wei	Hitachi T&D Solutions, Inc.	Member	X