Meeting Minutes of IEEE Switchgear Liaison Task Force to IEEE Transformers Working Group C57.142 Guide to Describe the Occurrence and Mitigation of Switching Device and System Interaction May 1, 2019 Burlington, VT

Liaison Task Force Chair: David Caverly

Liaison Task Force Vice-Chair: Jim McBride

Liaison Task Force Secretary: Carl Schuetz

Introduction of members and guests

Attendees: 66

Members Present: 8 of 15 (Quorum met)

Corresponding Members Present: 1 of 2

Guests Present: 57

Seven guests requested membership and 1 member asked to be changed to a guest.

Verbal call for patent identification

Result: No patent claim identified

Approval of agenda

Motion to approve: Jim van de Ligt

Second: Mike Skidmore

Liason Task Force

This session is the inaugural C57.142 Liaison Task Force meeting. (hereafter referred to as LTF).

The chair explained that this is an IEEE Transformers Committee document that is co-sponsored by the IEEE Switchgear Committee. The current activity is jointly updating the existing "C57.142 IEEE Guide to Describe the Occurrence and Mitigation of Switching Transients Introduced by Transformers, Switching Device, and System Interaction". The IEEE Transformers WG is looking for IEEE Switchgear Committee input to review content for advances in knowledge and IEEE Switchgear expert opinion since the last revision in 2010.

The C57.142 WG will plan to look for confirmation (via LTF ballot) that the document content is IEEE Switchgear Committee supported (ie. ready for ballot) before the document is submitted for a SA ballot.

Comments to the draft document via e-mail are allowed and strongly welcomed. Send comments to the Chair of the LTF (D. Caverly) optionally cc to Vice-Chair of the LTF and Chair of the C57.142 WG (Jim McBride).

Rules for membership of the LTF and voting were reviewed.

The Chair and Vice Chair of the LTF emphasized that full communication of the draft document (and any other distributed information) will be provided to both members and guests of the LTF via 123signup.

Functionality of the LTF within IEEE Switchgear and its interaction with the WG in IEEE Transformers was reviewed. Key Points: (1.) LTF meetings held in IEEE Switchgear will be documented in minutes and communicated back to the IEEE Transformers C57.142 WG. (2.) At each IEEE Switchgear meeting an update will be provided on the most recent minutes and discussions of the C57.143 WG in the Transformers Committee Meeting.

Document Status and Timeline

D6 is the current revision level out for comment

The guide expires in 2020 and the PAR expires in 2021.

D6 has been already distributed to existing members and guests of the LTF. It will soon be resent to all the guests and members of this, LTF Burlington, Vermont meeting via 123signup.

(Note: The label "D6" does not suggest that IEEE Switchgear Committee LTF participants have missed 5 previous published revisions. The revision number is simply an internal number to the main author and content coordinator.)

Update from Spring Transformer Committee (Anaheim CA, March 24-28 2019)

An overview of the Minutes of the Spring 2019 Transformers Meeting C57.142 WG was presented:

Additional failure examples were added in D6, failures of HV and EHV equipment.

Transformer Committee will be updating links to the ref docs for this WG (at present some work and some do not, due to system changeovers within IEEE Transformers)

A companion task force has been established within Transformer Committee on Mitigation Methods (Chaired by Phil Hopkinson):

STLI test (Special Terminated Lightning Impulse) is being discussed in the Transformer Committee (as an additional test to the currently specified impulse test). A presentation was made by the Vice-Chair of the results seen by AEP using this test. This test has been used by AEP with success and has resulted in improved in field results (due to design modifications that suppliers have needed to make to pass it). The basic notion being that the STLI test better represents the in-service conditions as compared to normal routine impulse as per the standard.

Vice-chair also presented an update on TDSF (Time Domain Severity Factor) investigative work being done within Transformer Committee.

Discussion of draft 6

The vice-chair presented recent inclusions to draft 6. TC is looking to SC for suggested improvements in switching device performance to reduce transformer/reactor faults.

Action Items

Chair and vice-chair requested comments on the document to them.

D6 to be sent to new attendees.

Chair to send presentation files to LTF members and guests.

Vice-chair to review re-ignition mitigation methods contained in C37.015.

Next Meeting

Transformer Committee Columbus, OH, Oct. 27-31, 2019

SC San Diego, CA, Oct 6-10, 2019

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Carl Schuetz – LTF Secretary cschuetz@atcllc.com

Transformers Document Link:

http://transformerscommittee.org/subcommittees/performancechar/

Motion to Adjourn: Jim van de Ligt

Second: Joanne Hu

ADSCOMM C57.142 - Meeting Roster and Attendance

Burlington, Vermont

First Name	<u>Last Name</u>	<u>Company</u>	<u>Role</u>	Attended S19 Burlington, VT	Present Sub Total	Roster Sub Total
David	Caverly	Trench Ltd.	Chair	Х		
James	McBride	JMX Services, Inc.	Vice-Chair	Х		
Carl	Schuetz	American Transmission Company (ATC)	Secretary	Х		
Anne	Bosma	ABB AB	Member			
Arben	Bufi	Hitachi T&D Solutions, Inc.	Member	X		
Stephen	Cary	GE	Member			
Michael	Christian	ABB	Member			
Victor	Hermosillo	GE Grid Solutions	Member	Х		
Amir	Khosravi	BC Hydro	Member			
Gustavo	Leal	Dominion Energy	Member			
Samala Santosh	Reddy	Powell Industries	Member			
Sushil	Shinde	ABB Inc.	Member			
James	van de Ligt	CANA High Voltage Ltd.	Member	Х		
Karthik Reddy	Venna	Siemens AG	Member	Х		
Wei	Zhang	Hitachi T&D Solutions, Inc.	Member	Х		
					8	15
Т	Olsen	Retired, formerly with Siemens Industry, Inc.	Corresponding Member			
Joe	Rostron	Southern States LLC	Corresponding Member	Х		
					1	2
Gautami	Bhatt	Bechtel OGC	Guest	X		
Bruno	Bisewski	RBJ Engineering Corp	Guest	X		
Michael	Boulus	PSE&G	Guest	Х		
Andrew	Brignac	Entergy	Guest			
Jeffrey	Brogdon	Georgia Transmission	Guest			
Stephen	Cary	SMC	Guest			
Vincent	Chiodo	HICO	Guest	Х		
Andrew	Chovanec	GE Power	Guest			
Lucas	Collette	Duquesne Light	Guest	Х		
Jason	Cunningham	Southern States, LLC	Guest	Х		
Patrick	Di Lillo	Consolidated Edison Co. of NY, Inc.	Guest	Х		
Edgar	Dullni	retired	Guest	Х		

nadia	El khattabi	Hydro-Quebec	Guest	X	
Karl	Fender	Southern States LLC	Guest	Х	
Raymond	Frazier	Ameren	Guest	Х	
Denis	Frigiere	GE	Guest	Х	
Elizabeth	Gall	MEPPI	Guest		
Brian	Gerzeny	Powell Electrical Systems Inc	Guest	Х	
Edward	Hester	Entergy	Guest	Х	
Jingxuan (Joanne)	Hu	RBJ Engineering Corporation	Guest	Х	
Roy	Hutchins	Southern Company Services	Guest	Х	
Katarzyna	Hyjek	DTE	Guest	Х	
Todd	Irwin	GE Grid Solutions	Guest	Х	
Bharatwaj	Jagadeesan	Southern States LLC	Guest	Х	
Christopher	Jarnigan	Southern Company Services	Guest	Х	
David	Johnson	HVCB	Guest		
Travis	Johnson	Xcel Energy	Guest	Х	
Carl	Kurinko	ABB Inc.	Guest	Х	
David	Lemmerman	PECO/Exelon	Guest		
Hua Ying	Liu	Southern California Edison	Guest		
Albert	Livshitz	CE Power Engineered Services	Guest	Х	
Antonio	Mannarino	PSE&G	Guest	Х	
Vincent	Marshall	Southern Company Services	Guest		
Gary	Martin	Entergy	Guest		
Benjamin	Marx	Sargent and Lundy	Guest	Х	
Paul	Masterson	Hitachi T&D Solutions	Guest		
Steven	May	Southern Company	Guest	Х	
Neil	McCord	KEC Precision	Guest		
Peter	Meyer	S&C Electric Company	Guest	Х	
Dave	Mitchell	Retired	Guest	Х	
Stephanie	Montoya	Southern California Edison	Guest	Х	
Tom	Mulcahy	Dominion Virginia Power	Guest		
Raj	Nayar	Siemens Energy Inc.	Guest	Х	
Mirko	Palazzo	ABB	Guest	Х	
Thomas	Pellerito	DTE Energy	Guest	Х	
Lucas	Pernitz	Siemens AG	Guest	Х	
Andrew	Peterson	ABB	Guest	Х	
Zachary	Pintado	Entergy	Guest		
Craig	Polchinski	MEPPI	Guest	Х	
Robert	Ramsey	Bechtel	Guest		
Bobby	Rich	Dominion Virginia Power	Guest	Х	
Dave	Riffe	Westinghouse Electric Company	Guest	Х	
Brian	Roberts	Southern States, LLC	Guest		
Jon	Rogers	Siemens Energy, Inc	Guest	Х	

Carl	Schneider	Schneider Electric	Guest		
Ryan	Sherry	ITC Holdings Corp.	Guest	Х	
Robert	Sicker	FirstEnergy Corp	Guest	Х	
Michael	Skidmore	AEP	Guest	Х	
Robert	Smith	Retired	Guest	Х	
Francois	Soulard	Hydro-Quebec	Guest	Х	
Erin	Spiewak	IEEE	Guest		
Don	Steigerwalt	Duke Energy	Guest	Х	
Dragan	Tabakovic	Meramec Hubbell Power Systems	Guest		
Chand	Tailor	Eaton Corporation	Guest		
Karla	Trost	G&W Electric	Guest	Х	
Jordan	Tsvetanoff	First Energy	Guest		
Nenad	Uzelac	G&W Electric	Guest	Х	
John	Webb	ABB	Guest	Х	
Casey	Weeks	Siemens Energy	Guest	Х	
William	Weishuhn	ABB	Guest	Х	
Jan	Weisker	Siemens AG	Guest	Х	
Jerry	Wen	BC Hydro	Guest		
Matt	Westerdale	Bureau of Reclamation	Guest	Х	
William	Wilkie	Eaton	Guest	Х	
Jean-Marc	Willieme	GE	Guest	Х	
Terrance	Woodyard	Siemens Industry Inc.	Guest		
		Mitsubishi Electric Power		Х	
Richard	York	Products Inc.	Guest	^	
		Mitsubishi Electric Power		X	
Marcus	Young	Products, Inc.	Guest		
Jim	Zhong	American Transmission Company	Guest	X	
Xi	Zhu	GE Energy Management	Guest	X	

Total	66	97