

Final (10-29-18)

**C57.150 – IEEE Guide for the Transportation of Transformers and Reactors Rated 10 000 kVA or Higher
Tuesday, October 16, 2018; 11:00 a.m. – 12:15 p.m.
Hyatt Regency Jacksonville Riverfront Grand Ballroom 5
Jacksonville, Florida, USA
Minutes of WG Meeting**

The meeting was called to order at 11:03 a.m. by Chair Greg Anderson. Vice Chair Ewald Schweiger and Secretary Marnie Roussell (writer of Minutes) were also present.

There was a total of 122 people present. This included 24 members present of the 37 members in the working group, resulting in a 64.9% quorum. Attendance was taken utilizing RFID tabulation. Paper rosters were not passed around, so any guests desiring membership were asked to contact one of the WG leaders.

Agenda

1. Welcome and Introductions
2. Patent Issues
3. Determination of Quorum (determined by RFID system)
4. Approval of the Minutes
5. Old Business
 - a. Timeline of Project
 - b. Review of assigned work
6. New Business
7. Additional discussion, ideas
8. Adjourn

Introductions of the Chair, Vice Chair, and Secretary were made. Attendees were asked to introduce themselves and indicate their affiliations when making comments or asking questions (although this was later determined to be an unnecessary task).

A call for essential patent claims was made. No patent claims were identified.

There were no objections to the agenda as identified above.

Minutes of the Spring 2018 Meeting were posted within the minutes of the SC Power Transformers. The minutes were approved with a motion by Eduardo Garcia and seconded by Susan McNelly.

List of Meeting Attendees is provided below. Those identified with an asterisk are WG Members in attendance. Those granted membership at this meeting are noted with two asterisks (**)

Hamid Abdelkamel*	Stephen Cameron	Shamaun Hakim
Mario Alonso**	Juan Castellanos	Robert Harper
Gregory Anderson*	Jorge Cruz Cienfuegos	Thomas Hartmann
Javier Arteaga*	Paul Dolloff**	Joseph Holleran
Roy Ayers	Don Dorris	Jill Holmes
Jay Bennett	Joshua Elliott	Anirudhdhsinh Jhala
Mats Bernesjo	James Fairris*	Grace Jones
Enrique Betancourt	Howard Fennell	Stephen Jordan**
Wallace Binder*	Eduardo Garcia*	Akash Joshi
William Boettger*	James Gardner	Kurt Kaineder
Sanket Bolar	Jorge Gonzalez de la Vega	Gael Kennedy
Paul Boman	Jeffrey Gragert	Zan Kiparizoski
John Brafa	James Graham	Lawrence Kirchner
David Calitz	Bill Griesacker	Peter Kleine**

John Lackey	William Oliver	Kenneth Skinger*
Michael Lau*	Anastasia O'Malley	Christopher Slattery
Antoine Lecomte	Jamie Partington	Arthur Speegle
So-young Lee*	George Partyka	Mike Spurlock
DongGi Lim	Brian Penny	Brad Staley
A. Pedro Lima	Ion Radu	Andrew Steineman
Jacky Lin	Rakesh Rathi*	Gregory Stem
Parry Lively	Jeffrey Ray	Kevin Sullivan*
Kerry Livingston	John Reagan	Charles Sweetser
Mario Locarno*	Kevin Riordan	Craig Swinderman*
Mark Lowther, Jr.	Marnie Roussell*	Radoslaw Szewczyk
Andrew Lugge	Jose Salva	Troy Tanaka
Tara-lee MacArthur	Oliverio Sanchez	Robert Thompson
Richard Marek	Amitabh Sarkar	Krishnamurthy Vijayan**
Rogelio Martinez	Mark Scarborough	Dharam Vir
Douglas McCullough	Eric Schleismann	Waqar Wahid
John McFadden	Alfons Schrammel*	Hugh Waldrop
Susan McNelly*	Ewald Schweiger*	David Wallach*
Vinay Mehrotra	Pugazhenthii Selvaraj	Bruce Webb**
Michael Miller	Cihangir Sen**	Matthew Webb
Paul Morakinyo	Samuel Sharpless*	Kenyon Webber
Martin Munoz Molina	David Sheehan	Peter Wei
David Murray	Mark Shem-Tov*	Matthew Weisensee*
Ryan Musgrove	Jin Woo Shin	Daniel Weyer
Paul Mushill	Yukiyasu Shirasaka	Jeffrey Wright
Shankar Nambi**	Richard Simonelli	Kris Zibert*
Anthony Natale	Andre Simons*	

Timeline

Greg provided a brief history of the document and the timeline for the revision. He indicated we need to essentially have a complete draft done at least a year prior to the 12/31/2022 expiration of the PAR.

Revision Topics/Assignments

The Task & Assignments were reviewed and status provided.

Assignments Chart			
Task	Brief Scope (see meeting minutes)	Assigned To (team assigned to each task)	Status
CIGRE Guide	Compare CIGRE document 673 - WG A2.42-2016 to our Guide. Identify topics to be included.	H. Abdelkamel, M. Locarno, K. Vijayan, S. Nambi, E. Schweiger, B. Webb	Done
	#3 Definitions	Paul Dolloff, Mario Alonso	WIP
	#4 Transport Incidents - case studies	Paul Dolloff, Mario Alonso Need more volunteers	WIP
	#5 Design Considerations for Transportation	Need more volunteers	WIP
	#7 Design review	K. Vijayan, Mario Alonso, A. Jhala	WIP
	#8, 12, 13 Transport (process, planning, instructions)	Need more volunteers Shankar Nambi	WIP
	#9 10 Impact recorder application and data interpretation	Paul Dolloff Need more volunteers	WIP
	Annex Flowchart for test/conditions	Need more volunteers	WIP

<u>Assignments Chart</u>			
<u>Task</u>	<u>Brief Scope</u> (see meeting minutes)	<u>Assigned To</u> (team assigned to each task)	<u>Status</u>
	after transport		
Swimlanes	Helpful "matrix/table" to Guide	D. Wallach	Done
Impact Recorders	Enhance section on impact recorders	S. Nambi, K. Nunn, R. Rathi, J. Watson, P. Dolloff	
Internal Bracing	Add guidance (careful, a design issue!)	R. Verdolin, J. Watson, M. Alonso	
External Bracing, Lashing, etc.	Provide some guidance	Kris Zibert Need more volunteers	
Exceeding Impact Limits	Add: What to do if specified impact limits are exceeded.	R. Verdolin, J. Watson	
Tests	Compare Tests, C57.150 vs. C57.152	W. Binder, J. Watson	
Air Pressure	Add: How internal air pressure changes w/ambient temperature.	J. Arteaga, Peter Kleine	WIP
SFRA	Enhance section on SFRA	G. Anderson, R. Su, K. Sullivan	
C57.93, Installation Guide	Review C57.93 for any overlap and conflicts.	J. Sen, Mike Lau	Done
Shipping w/Natural Ester Fluids	Add section of unique issues	R. Simonelli, A. Jhala	
Mobile Subs	Add section of unique issues	K. Vijayan Need more volunteers	
Design Review Checklist	Checklist of discussion topics during a design review	K. Vijayan, Mario Alonso, A. Jhala	

CIGRE Guide

Ewald Schweiger summarized an initial review of the CIGRE Guide on Transformer Transportation, WG A2 42 (CIGRE Proceedings 673). Bruce Webb, Ewald Schweiger, Mario Locarno, and Shankar Nambi met October 11, 2018 to finalize the recommendations from 673 to be included in C57.150. Shankar presented the recommendations to the working group. Volunteers were requested to assist in incorporating the details in C57.150. The presentation and Comparison Matrix details will be posted to the website.

Swim Lanes

Dave Wallach completed the Swim Lanes Concept matrix. It is posted to the website.

Impact Recorders

Paul Dolloff volunteered to assist the existing team with this effort.

Field Tests

Wallace Binder indicated that the working group C57.152 will start in about 2020. The working group for C57.150 will make a recommendation to add a column indicating when to perform the tests.

Air Pressure

Peter Kleine volunteered to assist Javier Arteaga with this effort.

C57.93 Installation Guide

Mike Lau will be assisting Jon Sen to prevent C57.150 from repeating material already stated in in C57.93 Installation Guide. C57.93 refers to C57.150 and indicates a clear demarcation between the two guides as the point at which the transformer is placed on the foundation. Jon Sen noted that C57.93 is more detailed than C57.150 and suggested adding additional detail to match C57.93 without repeating the material.

Shipping w/Natural Ester Fluids

Richard Simonelli and Anirudhdhsinh Jhala volunteered to develop this topic.

Mobile Sub

Krishnamurthy Vijayan volunteered to develop this section, but additional volunteers are desired.

Design Review Checklist

Dave Wallach suggested that the working group add a Design Review Checklist to the guide. Krishnamurthy Vijayan, Mario Alonso, and Anirudhdhsinh Jhala volunteered to develop this checklist.

New Business – There was no new business

The meeting was adjourned at 11:54 p.m. with a motion by Wallace Binder that was seconded by Samuel Sharpless.

The Working Group plans to meet at the Spring 2019 Transformers Committee Meeting held March 24-28 in Anaheim, California USA.

Greg Anderson
WG Chair

Ewald Schweiger
WG Vice Chair

Marnie Roussell
WG Secretary & Technical Editor