



# MEETING MINUTES

## **Working Group “Condition Appraisal for Liquid-Filled Transformers” PC57.170**

(Power Transformer Sub-Committee)

Meeting Date/Time: October 29, 2019 0930-10:45 Hrs.

Meeting Location: “Union A/B” – Hyatt Regency

Chairman: Kumar Mani (KM) – (Duke Energy)

Vice-Chair: James Cross (JC) - (Kinectrics)

Secretary: TBA. Acting Secretary – James Cross

This was the formative meeting of this working group.

Meeting was convened at 0935 Hrs. by Chairman Kumar Mani with 121 total attendees. 33 attendees requested membership on the WG on the paper attendance list that was circulated.

Akash Joshi (Black and Veatch) has volunteered to be Secretary for this WG. He will take over Secretary duties at the next meeting.

### AGENDA

- A. Welcome & Introduction
  - B. Call for Patent Disclosure
  - C. IEEE Copyright Policy
  - D. Roster Circulation- If you have interest in becoming a member, please indicate on the Roster.
  - E. Chair Remarks
  - F. Working Group Activities
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- 1. Approved PAR Title: A Guide for the Condition Assessment of Liquid Immersed Transformers, Reactors and their components.
  - 2. Approved PAR Scope: To present existing condition assessment methodologies that quantify the current condition of liquid immersed transformers, reactors and their components.



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3. Discussion on proposed sections in new guide.
4. Volunteers to write the sections in the new guide.

## Meeting Minutes:

KM reviewed the standard patent disclosure info. (No response from attendees to request for patent info.)

KM reviewed the copyright policy with the group.

KM presented a slide comparing the TB 761 document with IEEE C57.152, C57.140, and C57.143 contents.

Discussion: Gary H. asked if we had permission from CIGRE to use information from the TB 761 document. He noted that there is an MOU between IEEE and CIGRE to allow sharing of published information.

Bruce Forsyth asked if the MOU meant that we already had de facto permission to use CIGRE information. Gary suggested that we still needed formal copyright approval.

**Action Item: Kumar to approach CIGRE and IEEE through IEEE-SA for copyright approval of the above reference documents.**

Diego R. noted that the CIGRE document is available to all on the CIGRE website whether one is a CIGRE member or not.

Allan (Cargill) commented on the development of the CIGRE document. Luiz Cheim (ABB) participated in the CIGRE WG as well... he noted concerns about "Health Index" and that this needs to be discussed thoroughly. Joe Watson (Weidmann) also worked on the CIGRE TB 761 WG and he noted that the approach needs to be flexible and that a goal should be a consistent approach (as might be required by an insurance auditor). The current tools do not support this approach. He believes that we should develop something like CIGRE TB 761.

Luiz Cheim observed that we should use the CIGRE document as a starting point for our WG as many of the CIGRE participants and company are present.



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Motion: Gary Hoffman moved that the officers of C57.170 WG obtain formal copyright permission from CIGRE. Seconded by Bruce Forsyth. Carried unanimously.

A discussion ensued about whether the permission would carry across various IEEE WG.

Joe Watson asked about whether a “co-logo’d” document with CIGRE might be possible. Gary noted that CIGRE would expect recognition as the information source.

Motion: Luiz made a motion that once we get approval from CIGRE to use their copyrighted material that a task force (or forces) produce a summary of the document be presented to this group. Seconded by Emilio Morales.

Discussion of motion: Mario Lacourno noted that a presentation on this topic was made at the Thursday tutorial session at a previous meeting.

Gary H. commented that he was not in favour of this approach...but rather than WG members make individual comments to the WG chairman. Poorvi Patel feels that results would be better if someone took leadership of this work as part of a TF.

Bruce F. noted that other WG’s have created individual task forces to look at sections of a document. He recommends this approach. He said that the CIGRE document is available to all for use, so we need to look at changes/additions that we might make to the CIGRE document to justify our effort in this WG.

Gary H. offered a trailing amendment to Luis’ motion: have a discussion of the CIGRE document that is open to all members not just TF. He made a trailing amendment that we break the CIGRE document into 12 sections and 12 task forces. There was no seconder.

Joe W. – we don’t necessarily need all the same chapters as the CIGRE document.

Tim Raymond (EPRI) he noted that following the CIGRE document is not necessarily a good approach.

JW – he noted that one or two individuals should lead the summary of the CIGRE document (via task forces).

Tim suggests that one task force is adequate for the review/presentation task.

Jim Gardner (SPX) – calls the question. Opposed by Gary H.



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Vote: Four persons opposed the motion. Luis' motion is carried by majority vote.

Motion to reconsider: Gary made a motion to reconsider and develop/define a specific scope for the task force. Seconded by Bruce F. Bruce noted that this discussion has been going on for several meetings and so we need to move forward with a defined work scope. We need clarity in the scope and concrete direction/actions.

Discussion: Joe W. – we need a blank table of contents to use as a “template.”

Allan (Cargill) – noted that there were four or five TF's that worked on the CIGRE working group.

Carried unanimously.

Scott Reed (MVA Power) – Suggested we set up a Taskforce to look in to different chapters.

Poorvi suggested that we needed concrete proposals for wording rather than just a simple review.

Motion: Bruce F made a motion that we form a TF that reviews the document and proposes a Table of Contents by way of defining the scope. Seconded by Diego R.

Discussion: Joe W – the task force should develop a TOC that correlates to the CIGRE document identifying gaps and overlap areas.

Scope of TF: To review the CIGRE TB 761 document and to develop and recommend a table of contents for the C57.170 guide and to make a presentation at the next WG meeting in Charlotte. Also, to review and recommend if any of A2.49 document sections should be incorporated into our guide.

Peter W. (Megger) noted CIGRE Technical Brochure 761 covers this subject. Bruce's motion carried unanimously. Joe W. asked about the PAR timeframe and the schedule moving forward. There are four years remaining in the PAR.

**Action Item: Luiz Cheim will lead the TF effort. Volunteers should come forward after the meeting of they want to participate in the TF.**

Alan Sbravati, Tim Raymond, Joe W, Jim Graham, Gary H, Mike Said all volunteered before the close of the meeting. Jeff Benach, Stephanie Denzer, Pragnesh Vyas, Ed teNyenhuis, Emilio



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Morales-Cruz, Bill Whitehead, Tara-Lee MacArthur, Peter Kleine and Elizabeth Bray volunteered after the meeting.

Action By JC: Volunteer name list to be provided to Luiz for the TF.

New Business- There was none.

Next Spring, 2020 meeting will be held at Charlotte, NC

Meeting adjourned at 1035 hrs.

Respectfully submitted,

Kumar Mani  
Chair

James Cross  
Vice-Chair (Acting Secretary)