

**C57.12.23** Working Group Report – Single-Phase Submersible Transformers –  
Alan Traut, Chairman, Jermaine Clonts, Secretary  
Revision due date: **3/19/2019**  
PAR Expiration Date: **12/31/2018**

Introductions – The meeting was called to order and everyone was asked to introduce themselves. Paper rosters were sent around in addition to asking for all attendees to scan their badge.

At the start of the meeting the working group was asked to disclose of any essential patent claims. No essential patent claims were disclosed

Quorum – We had 58 attendees, 31 members present out of 43 active members, which gave us enough members to establish a quorum.

Approval of agenda - unanimous approval of agenda

Approval of meeting minutes- unanimous approval of meeting minutes

Chair Report – Al talked about when the PAR expires and how long we have to complete our work. PAR expires December 31, 2018. 10-year life cycle of the standard is December 31, 2019. Al informed the working group of his desire to send to the ballot in the spring meeting of 2018, which would give us two more meetings.

## **M.1.1** Old Business

### M.1.1.1

#### 7.2.2 Low Voltage terminals

Al Traut reviewed the table defining low voltage bushing stud size by kVA constructed by Bill Wimmer, Ed Smith, and Josh Verdell. The stud size for a transformer rated 250 kVA with a LV of 120 volts was marked as “N/A” as the application exceeds the ratings of the 1.25” stud. Dan Mulkey proposed a motion to accept the table as presented. Ed Smith seconded the motion. The motion passed unanimously.

### M.1.1.2

#### 7.6.1 Tank Material Thickness table

Al Traut reviewed the final minimum material thickness table. Jermaine Clonts noted the table was based off AISI standards, considered hot and cold rolled steel, and the values presented were the minimum for the given steel gauge. Ronald Stahara made a motion to accept table 5 as presented. Ed Smith seconded the motion. The motion passed unanimously.

## **M.1.2** New Business

### M.1.2.1

#### 7.2 Accessories

The working group expressed interest in adding additional accessories such as tap changers and dv switches to section 7.2, however due to time constraints the working group decided this should be addressed in the next revision.

### M.1.2.2

#### 5.3 Voltage and Tap ratings

The text in Section 5.3 Voltage and Tap ratings was modified to include “unless specified by the end user. The section now read as follows. “Voltage ratings shall be in accordance with Table 1 and Table 2. No taps shall be provided unless specified by the end user.” Alex Macias made a motion to accept the revised text Giuseppe Termini seconded the motion. The motion passed unanimously.

### M.1.2.3

#### 4.2 Submerged operation

Igor Simonov made a recommendation to define a test procedure to validate submersible transformers can operate under 10 ft of water. Dan Mulkey mentioned the submersible enclosure integrity working group 12.32 would take care of this test procedure.

**M.1.3** To close the meeting Al Traut noted that he will send out the draft to the working group before the Spring 2018 meeting for comments, send out the draft to MEC, and during the spring 2018 meeting the working group will vote to go to ballot