

Minutes of Meeting September 24, 2014 (8:00am -9:45am)

WG: C37.06.1 - IEEE Standard Test Procedure for AC High-Voltage Circuit Breakers

Location: Asheville

Participants: 19 Members 14 Guests

1. The meeting started with the chair introduction and introductions of the attendees.
2. Sushil Shinde opened the meeting with a review of the MOM from Orlando, FL. MOM were accepted as presented. The agenda for the meeting was presented. The chair reviewed the agenda for the meeting and the expected timeline. The PAR expires December 2015. A first draft of the document PC37.06.1 was presented for discussion and it was decided to focus more on the TRV parameter tables than the general text.
3. It was suggested to remove TLF from the title and just refer to Fast Transient TRV however it was unanimously decided to keep the reference to Transformer Limited Fault in the subject.
4. The reference to IEEE C37.04a and IEEE C37.09a should be removed.
5. The Table 1 showing standard TLF ratings for breaker rated >100 kV was presented which included kV rating (Column 1), kA rating (Column 2) and the corresponding standard TLF rating (Column 3). The values are based on R10 series given from the data and not from a calculation. This is from data collected from the WG to show how much fault current is actually seen and is presented as Annex B in the draft document. Since the TLF rating is delinked from the short circuit rating of the circuit breaker it was discussed to remove column 2 referring to short circuit rating. It was decided to include the MV ratings in the Table 1 with 12.5 kA being the upper limit of rated transformer limited fault current. It was suggested to include Note 1: "The rated TLF breaking current is in a range between 20% and 40% of the rated short-circuit current".
6. Discussion on Table 2: The word "Rated" should be removed from column 2 & 6 as the ratings are established in Table 1. Questions were asked on why only 8 kA rating is included on Line 4 of Table 2 corresponding to 27 kV. Per Helmut time delay $t_d=0.05 \mu s$ shall be replaced by $t_d=0.15 \mu s$ similar to 1-cos wave shape. The TRV peak values presented did not consider the transformer voltage factor and hence Column 3 & 7 values will be recalculated with 0.9 for TLF1 and 0.7 for TLF2 test duty. Per Alexander Roy two parameter TRV explanation shall be given for Table 2.
7. Discussion on Table 3: The word "Rated" should be removed from column 2 & 7 as the ratings are already established in Table 1. TLF2 test duty currents should match with the ratings specified in Table 1. Note for time delay t_d should be mentioned below Table 3. This is clarified in Annex A. As per Arben Bufi transformer voltage drop factor k_{vd} definition should be included in Annex A.
8. Some editorial changes were discussed.
9. Next step discussion was to circulate draft to WG members for comments/review before the ballot process by end of October, 2014.
10. No motions were made.

MOM prepared by:

Sushil Shinde, Sushil.Shinde.A@ieee.org