IEEE Power Engineering Society Switchgear Committee C37.20.7 Working Group Report 03-October-2005

The working group met to review the ballot results and comments on D7 of the revision to C37.20.7, and finalize the proposed responses to the ballot comments. H. Josten was added to the working group membership, to replace S. Slattery, who passed away shortly after the May, 2005 meeting in St. Pete Beach, Florida.

Attendance included 13 WG members and 15 guests. Working group members are:

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N. Gunderson (A)
                                                   T. McNamara (P)
                                                                               S. Slattery (D)
C.Ball (P)
P. Barnhart (P)
                         H. Josten (P)
                                                   T. Olsen (Vice Chair) (P)
                                                                               J. E. Smith (P)
E. Byron (P)
                         D. Lemmerman (E)
                                                   M. Orosz (P)
                                                                              M. Wactor (Chair) (P)
P. Dwyer (P)
                        D. Mazumdar (P)
                                                   R. Puckett (P)
                                                                               J. Zawadzki (P)
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In the table above, P = present, E = excused, A = absent, D = deceased

IEEE-SA rules on Patents were reviewed prior to further discussions.

The ballot on draft D7 closed on May 5, 2005, with the following results:

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97 100% persons in ballot group
78 80% returned (78 of 97)
3 3% abstain (3 of 97)

60 77% affirmative with or without comments (59 of 78)
15 19% negative (15) with comments (15 of 78)
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Comments had been previously discussed at the May, 2005 document. A consolidated list of comments and proposed resolution was transmitted in September, 2005, along with a preliminary draft D8 in agreement with the proposed resolution. During this meeting, the consolidated resolution document is to be approved so that a recirculation ballot can be initiated.

## Discussion of specific comments:

- 102 and 107 (includes similar comments on this issue): The WG concluded that we do not have sufficient evidence to know whether insulated or non-insulated construction is the worst-case for internal arcing tests. Therefore, the WG agreed to maintain the requirement for separate tests for insulated and for non-insulated bus.
- 199: D7 allows ejection of an object up to 60 grams in weight, as allowed by IEC. WG decision, accept proposal in comment 199.
- 202: D7 allows burning of up to 25% of an indicator without causing failure. WG decision: Delete last sentence of criterion no. 4, which reads: "A vertical Indicator is considered ignited if 25% or more of the material is consumed."
- 197: D7 indicates that openings in the enclosure, as a result of arcing, that do not cause ignition of
  the horizontal indicators, is not cause for failure. WG decision: Modify 1.2.2.b to read "any activity
  requiring personnel to be elevated above the base level of the switchgear, i.e., use of a ladder, lift,
  or on a catwalk". Criterion no. 3 is unchanged.
- 208 and 160: The change in 160 resolves the issue in 208.
- 090: WG decision revise to require minimum extension of 2 m (79 in) past the perimeter of the switchgear.
- 094: Proposed change not accepted. Change accepted by WG: "If internal tunnels or ducts are
  used to channel arc products across more than one vertical section before exiting the sample, one
  test shall be performed with an internal duct length of at least 2m beyond the section in which the
  arc is initiated."
- 133: No change at this time. This topic will be considered in a future revision.
- 136: No change at this time. This topic will be considered in a future revision.
- 156: No change at this time. This topic will be considered in a future revision.

- 170: Accepted in principle. "Draft revised to specify 10 AWG for C37.20.1 equipment and 24 AWG for C37.20.2 and C37.20.3 equipment."
- 179: Accepted in principle, with "metal" substituted for "sheet steel" (to agree with comment 190.
- 191: Accepted. Delete "or removable" in the second sentence of the second paragraph.
- 210: Accepted.
- 227: Accepted.
- 231: Not accepted. Suffix D is regarded as a standalone suffix.
- 241: Change "the effect of equipment ratings on the installation site requirements" to "the effect of installation site requirements on the equipment performance".
- 287: Accepted.
- 209: Not accepted.
- 246: Delete "The use of PPE is left to the user and the practices of the facility." Add "Application of equipment meeting the requirements of this guide does not eliminate the requirements of personal protective equipment (PPE)."
- 275: Accepted in principle. The chair will revise wording to improve the content.
- 189: Accepted in principle, except change from 300 mm to 100 mm in all instances.

## Revised schedule:

- Ballot comments and resolution: October 31, 2005
- Revised draft (D9) for recirculation ballot: October 31, 2005
- Submittal to IEEE-SA for recirculation ballot: October 31, 2005

Report submitted by: M. Wactor, WG Chair