

C37.68 – Controls for Distribution Systems

May 4, 2009 – Asheville , NC

- Don Parker announced Tim Royster as the vice-chair of the WG. An agenda with pages from the draft document as submitted to the chair to date was passed out.
- Call Meeting to Order at 9:20 AM
- Roster Check – membership changes – resignations
 - Ed Jankowich will be checking with Harry Hirz and Ed Steele regarding their assignments with this group.
- Approval of October 13, 2008 minutes
- Patent Slides
 - The four patent slides were presented. No one present had any comments to make at the time.
- Discussion of draft submittals
 - Draft 1 of the proposed introduction page was handed out for review and discussion. This was authored by Don Parker. Tim Roster made changes to the draft as the group discussed them.
 - Discussion on what is covered by “distribution switchgear”. If the standards that cover equipment on distribution lines do not use the term distribution switchgear (DSG) then readers may not be aware of what this guide would cover.
 - The question was raised if capacitor switch controls are packaged by the manufacturer, then shouldn't the capacitors be excluded from this? It was stated that they are packaged and unpackaged. Capacitor switching wording was added to the draft.
 - It was pointed out that the PAR states pad mounted and pole mounted. It does not mention vault installed. It was agreed to not have submersible vault installed as part of the document. Dry vaults are covered though.
 - A question was raised if this document will cover controls for voltage regulators and other non-C37 equipment. Regulator controls are not covered by this guide.
 - The environmental concerns displayed to the group had comments in from Mietek where the printed handouts did not. The comments were identified with the track changes in the document so the group knew the differences.
 - **Question**, what constitutes a control being remote?
 - 100 ft. may be a good amount of distance for control wires.
 - There are also multi-element controls rather than a one-on-one relationship.
 - The environmental conditions list mirror what may be in NEMA 250 or other NEMA standards. Standard service conditions. Need more information on low temperatures factors. Tim will flesh this out.

- Ned suggested that we cross reference other similar standards. Consider adding Suggested guideline spec sheet or data sheet.
- Ranges of temperatures:
 - The controls should be able to survive in the same environment as the controlled switchgear. Reference the test codes for the equipment and temperature ranges from the existing standards.
 - Ned Simon mentioned that C37.20.1 provides guidelines to adjust for higher than normal ambient, such as derating a copper bus.
 - ICC has 65 deg C requirements.
 - Craig Befus stated it should be broken down to what the user needs to inform manufacturer what the service condition are, including temperature (range). The manufacturer or integrator needs to consider this ambient temperature and all devices that would be packaged together in one enclosure. This could include the manufacturers control being installed within a larger enclosure which would also contain radios, batteries, chargers, etc. It also could include the automation accessories being installed within the manufacturers control enclosure.
 - Tim Royster stated that although C37.100.1 may list the temperature for normal and abnormal, it does not explain why there are problems. We should include statements to explain what devices or conditions to suspect when a given feature or device doesn't work or fails.
 - Royster (tim_royster@ieee.org) requested that anyone who has environmental section testing or experience problems to contact him to incorporate this knowledge into the guide to help others understand.
- The only thing you can do to de-rate the electronics is to state that your device will not last as long.
 - Dielectric capacitors have a formula to determine expected life of them.
- It was suggested that we include a discussion regarding the failure modes of controls that could impact the equipment for which it is attached.
 - **ACTION ITEM:** Ned Simon will work on drafting a paragraph as a starting point for the group.
- **Question**, if the device has no logic is it a control? If it is not a control does our document intend to cover it. Are we looking at the whole package?
- Parker discussed the philosophy that will be communicated within this document. In general the intent is to enumerate undesired field experiences which have resulted from design or applications issues. Then utilize the forensic analysis of these events to suggest guideline for design, application or processes that would help to avoid recurrences of those events.

- Each section should put applicable standards into their sections to allow people to know where to go for more info.
- There are IEC standards available to the working group to use for this group's work.
 - ACTION: Don will provide a link to the control group's website to all of the standards that are available from IEEE for use by the control group only.
- The electrical disturbance section was discussed. The authors requested some feedback on where to go from the first draft provided. This section could be very large in size. The group suggested to keep it fairly basic and general. Send the reader to more detailed information to read. If we cannot find a document then create something for it. Put more tutorial information into the appendix and reference to it.
- Request for volunteers
 - Antone Bonner – Mechanical
- Unfinished business
 - Don stated that per the PAR we should be going out for ballot in one month. He will contact the IEEE to determine the status. It was pointed out that we have four years from the submittal date which covers us until December 2011.
- New Business
 - Nothing for now.
- Next Meeting – 2009 Fall Meeting Sep 27 – Oct 1, 2009, Hyatt Regency Denver Convention Center, Denver, CO
- Adjournment
 - Adjourned at 3:08 PM