

## 70E 2012 Cycle

One of the most important electrical safety standards is back in a cycle for changes and revisions. The NFPA 70E, *Standard for Electrical Safety in the Workplace*, is currently under review for new issuance of a 2012 version of the standard, and the committee has completed the Report on Proposals (ROP) phase and we will be completing the Report on Comments (ROC) in October 2010.

540 proposals were submitted for the 2012 cycle, somewhat fewer than the 2009 cycle, which had 579 proposals. The ROP contains the Public Proposals, Technical Committees' action on each proposal, as well as all committee-generated proposals. 70E Committee task groups were formed prior to the meeting to handle large projects such as revising the tables used for selecting arc-flash PPE or developing tables and PPE requirements for dc electrical systems.

Whatever is voted on at the ROP meeting may change at the ROC. This is normal as the 70E Committee solicits comments from the submitters and other interested parties, and often the new information changes the way we vote. The ROP is currently available from the NFPA at <http://www.nfpa.org/assets/files/AboutTheCodes/70E/70E-A2011-ROP.pdf>, and there is a 60-day comment period (ending on September 3, 2010) during which anyone may submit a public comment on the proposed changes documented in the ROP. The committee will reconvene in October and act on all public comments. This committee may also develop its own comments. As before, approval obtained via written ballot in accordance with NFPA's regulations is required on all committee and panel actions. All of this information is compiled into a second report, the ROC, which like the ROP, is published and made available for public review for a seven-week period.

### Likely Changes or Additions to the 2012 Edition of the 70E

Some of the proposals passed at the ROP that stand a good chance to make it into the next edition of the 70E are:

Two new columns were added to Table 130.7(C)(9). One column moves the notes that set the limits for the task from the end of the table so those limits appear directly across from the task. The committee believes that many people don't read those notes as they are currently at the end of the table. The other column provides the Arc Flash Boundary (we will probably drop the word *protection* to simplify the phrase), calculated at the note limits, so people will have a better understanding of the potential hazard they may be faced with. This is huge. One of the discussions that the committee had was how many people believe that



there is a 4' default AFB for <600 volts. Having this information immediately available to the users of the tables should make clear that is not true. We were surprised at some of the AFBs that were calculated.

The committee recommended eliminating the 2\* Hazard/Risk Category. It seemed simple enough to me, but for some people it was just too confusing – add a balaclava to the other HRC 2 PPE requirements. That confusion, added to concerns about the back of the head being exposed, led the committee to recommend deleting the 2\* hazard/risk category and requiring the use of a balaclava for all HRC 2 tasks.

There is a possibility of allowing the use of arc-rated goggles and balaclava in place of an arc-rated face shield and balaclava. There were strong opinions on this, both for and against, so it could go either way. One important point brought up during discussions on this is that balaclavas must be loose-fitting when worn. Tight fitting balaclavas

increase heat transfer through the material and could cause burns when the arc rating should be adequate. One of the concerns the committee had is that people generally do not consider this when wearing balaclavas. If you look like sausage-boy in your balaclava, it's probably too tight.

Table 130.7(C)(11) will probably be eliminated, as that information is now in Table 130.7(C)(9) and is redundant.

We voted to eliminate the "Individual Control" LOTO, where a worker did not have to use a lock or tag if he/she were working on equipment and he/she stayed in the immediate area, such as MCC's. OSHA had advised us that they did not agree with the concept last cycle and we voted it out during this ROP.

Refresher training will probably be required at least every three years. The committee is reluctant to put time requirements on things like training, but workers tend to forget about the hazards and the risks associated with working on or near energized conductors and circuit parts. Refresher training, if done properly, can help keep those hazards and risks in mind as tasks are performed.

A new table will probably be added for choosing arc-flash protective equipment and PPE when the tables are not used. In the past there had been no guidance for the selection of PPE except the tables, but the 70E states that the tables are task-based and cannot be used if an arc-flash study has been done. This hole has been filled, although the table will probably appear in Annex H, not in the main body of text.

Another table for the minimum safe approach distances for dc systems will also be added.

A table for estimating the incident energy on dc systems is being added to Annex D. Pending the results of the joint IEEE/NFPA study on arc-flash hazards, the committee believes it is in everyone's best interests to include what information is currently available on the hazards associated with dc power systems.

Nearly all, if not all of the installation requirements for battery systems will be removed. The committee believes that the NEC is the appropriate place for installation requirements, not the 70E.

A new annex, Annex X, will be added (X is just a holding identifier) that provides guidance on the appearance and information on arc-flash hazard labels. One of the issues presented was that arc-flash labels often contain a Hazard/Risk Category number, even though the 70E states that HRCs are task-based and can only be used when using the tables. The information in this annex is not mandatory, although it does provide important guidance on the information that should appear on arc-flash labels.

## Summary

Will all of these items make it to the final document? It's impossible to say at this point, although these are the ones most likely to pass the ROC. There are always a few surprises that come up during the ROC meeting, and that's what makes things so interesting! We'll let you know what happens after the ROC.



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