



TIE LINE UPDATE

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WHAT'S NEW in NFPA 70E 2009

Over 1300 proposals and comments were reviewed by the committee upgrading requirements of NFPA 70E 2004 for the 2009 edition. Among the most significant, Chapter 4 of the 2004 edition "Installation Safety Requirements" has been deleted because it was a duplicate of National Electrical Code installation requirements.

Other major changes include significant revisions to:
Annex B "Informational References"
Annex D "Incident Energy and Flash Protection Boundary Calculation Methods"
Annex F "Hazard/Risk Evaluation Procedure"
Annex J "Energized Electrical Work Permit"

Three new annexes were added:
Annex M "Layering of Protective Clothing and Total System Arc Rating"
Annex N "Example Industrial Procedures and Policies for Working Near Overhead Electrical Lines"
Annex O "Safety Related Design Requirements"

This 2009 edition includes the following usability features as aids to the user. Changes other than editorial are highlighted with gray shading within sections and with vertical ruling for large blocks of changed or new text and for new tables and changed or new figures. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet (•) between the paragraphs that remain. The index now has dictionary-style headers with helpful identifiers at the top of every index page.

Throughout the standard the term "near" has been replaced by more precise terms

such as "while exposed" or "within the Limited Approach Boundary of" and the term "live parts" has been replaced by the more precise term "energized electrical conductors or circuits".

Some Important Changes to Article 110 "General Requirements for Electrical Safety Related Work Practices":
the requirement to train employees exposed to shock hazards in methods of resuscitation and this training to be certified by the employer annually; the requirements for retraining before performing tasks done less than once a year; training on the selection, care and use of voltage detectors; requirements for retraining and requirements for documentation of training all added to section 110.6

Verification of proper operation on instruments used to test for the absence of voltage required before and after the absence of voltage test is performed by the addition of 110.9(A)(4).

Some Important Changes to Article 130 "Work Involving Electrical Hazards"

Changes to 130.3 "Arc Flash Hazard Analysis" include:
a requirement to determine not only the Arc Flash Protection Boundary but also the personal protective equipment that people within the Arc Flash Protection Boundary shall use; a requirement to update the analysis when major modification or renovation takes place, or periodically not to exceed five years; an exception for circuits rated at 240 volts or less, supplied by one transformer rated at less than 125 kVA; the requirements of 130.7(C)(9), (10) & (11) shall be permitted in lieu of a detailed incident energy analysis; the Arc Flash Protec-

tion Boundary of 4.0 feet for voltage levels between 50 and 600 volts is now based on the product of clearing time of 2 cycles and bolted fault current of 50kA or any combination not exceeding 100 kA cycles instead of 6 cycles and 50kA or any combination not exceeding 300 kA cycles; the requirement for equipment to be field marked with a label containing the available incident energy or required level of PPE.

Changes to 130.7 "Personal and Other Protective Devices" include:
a warning that some situations could result in burn injuries to the skin even with the appropriate protection selected, however burn injuries should be reduced and survivable; a recommendation that when incident energy exceeds 40 cal/cm² de-energizing should be considered; specific requirement for the use of rubber insulating gloves, leather protectors and sleeves where there is a danger of hand or arm injury from electric shock; the inclusion of required retest interval for rubber insulating equipment.

For more information concerning other changes, please contact Paul Gelinis, National Sales Manager, at pgelinis@burlingtonsafety.com.

