



NATIONAL FIRE PROTECTION ASSOCIATION

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MEMORANDUM

TO: NEC® Correlating Committee

FROM: Sarah Caldwell, *Committee Administrator*

DATE: February 6, 2023

SUBJECT: NFPA 70E Second Draft Correlating Committee FINAL Ballot Results (A2023)

According to the final ballot results, all Second Correlating Revisions and the Ballot to Forward NFPA 70E through the Development Process received the necessary affirmative votes to pass ballot.

Second Correlating Revisions (SCRs):

12 Members Eligible to Vote
0 Members Not Returned

Ballot to Forward NFPA 70E through the Development Process:

12 Members Eligible to Vote
0 Members Not Returned

The attached report shows the number of affirmative, negative, and abstaining votes as well as the explanation of the vote for **each** Second Correlating Revision.

To pass ballot, **each** Second Correlating Revision requires: (1) simple majority of those eligible to vote and (2) an affirmative vote of $\frac{3}{4}$ of ballots returned. See Sections 3.3.4.3.(c) and 4.4.11.5 of the *Regulations Governing the Development of NFPA Standards*.



Second Correlating Revision No. 6-NFPA 70E-2023 [Global Comment]

This document must be checked in before creating an SCR

[See attached file for revision to the definition of "Hazard, Arc Blast \(as applied to capacitors\)".](#)

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
SCR-6.docx	for ballot	

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Thu Jan 12 10:16:20 EST 2023

Committee Statement

Committee Statement: The Correlating Committee revised the definition by removing the word "electric". This action is for correlation with the use of the term "electric shock" in the standard. "Shock" as used in this definition is an acoustical condition, rather than an electrical condition.

Ballot Results

✔ This item has passed ballot

12 Eligible Voters

0 Not Returned

12 Affirmative All

0 Affirmative with Comments

0 Negative with Comments

0 Abstention

Affirmative All

Gallo, Ernest J.

Hickman, Palmer L.

Hittinger, David L.

Holub, Richard A.

Hunter, Dean C.

Kendall, David H.

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Schultheis, Timothy James

Williams, David A.

Hazard, Arc Blast (as applied to capacitors). (Arc Blast Hazard)

A source of possible injury or damage to health from the energy deposited into acoustical electric shock wave and high-velocity shrapnel. (360)



Second Correlating Revision No. 1-NFPA 70E-2022 [Definition: Electrically Safe Work Condition.]

Electrically Safe Work Condition.

A state in which an electrical conductor or circuit part has been disconnected from energized parts, locked/tagged in accordance with established standards, tested ~~to verify for~~ the absence of voltage, and, if necessary, temporarily grounded for personnel protection.

~~Informational Note: An electrically safe work condition is not a procedure, it is a state wherein all hazardous electrical conductors or circuit parts to which a worker might be exposed are maintained in a de-energized state for the purpose of eliminating electrical hazards for the period of time for which the state is maintained.~~

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Thu Dec 15 10:32:21 EST 2022

Committee Statement

Committee Statement: The informational note following the definition of “electrically safe work condition” is deleted because the technical committee did not revise it for NEC Style Manual compliance as directed by the Correlating Committee in Public Comment No. 156.

Ballot Results

✓ This item has passed ballot

12 Eligible Voters

0 Not Returned

12 Affirmative All

0 Affirmative with Comments

0 Negative with Comments

0 Abstention

Affirmative All

Gallo, Ernest J.

Hickman, Palmer L.

Hittinger, David L.

Holub, Richard A.

Hunter, Dean C.

Kendall, David H.

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Schultheis, Timothy James

Williams, David A.



Second Correlating Revision No. 2-NFPA 70E-2022 [Section No. 105.2]

105.2 Purpose.

These practices and procedures are intended to provide for employee safety relative to electrical hazards in the workplace.

Informational Note: See Informative Annex K for general categories of electrical hazards.

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Thu Dec 15 10:35:14 EST 2022

Committee Statement

Committee Statement: The Correlating Committee action returns the text of 105.2 to First Draft language for correlation with the overall purpose of the standard specified in 90.2.

Ballot Results

✓ **This item has passed ballot**

12 Eligible Voters

0 Not Returned

12 Affirmative All

0 Affirmative with Comments

0 Negative with Comments

0 Abstention

Affirmative All

Gallo, Ernest J.

Hickman, Palmer L.

Hittinger, David L.

Holub, Richard A.

Hunter, Dean C.

Kendall, David H.

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Schultheis, Timothy James

Williams, David A.



Second Correlating Revision No. 5-NFPA 70E-2022 [Section No. 110.2]

110.2 Electrically Safe Work Condition.

(A) Policy.

An employer shall establish, document, and implement an electrically safe work condition policy that does both of the following:

- (1) Requires hazard elimination to be the first priority in the implementation of safety-related work practices
- (2) Complies with 110.2(B)

Informational Note No. 1: See Informative Annex F for examples of hazard elimination. Elimination is the risk control method listed first in the hierarchy of risk control identified in 110.3(H)(3).

~~Informational Note No. 2: An electrically safe work condition is a state wherein all hazardous electrical conductors or circuit parts to which a worker might be exposed are placed and maintained in a de-energized state, for the purpose of temporarily eliminating electrical hazards.~~

~~Informational Note No. 3: See 120.6 for requirements to establish an electrically safe work condition for the period of time for which the state is maintained.~~

Informational Note No. 2: The electrically safe work condition policy could be documented in the employer's electrical safety program or in the employer's management system or similar documentation.

(B) When Required.

Energized electrical conductors and circuit parts operating at voltages equal to or greater than 50 volts shall be put into an electrically safe work condition before an employee performs work if any of the following conditions exist:

- (1) The employee is within the limited approach boundary.
- (2) The employee interacts with equipment where conductors or circuit parts are not exposed but an increased likelihood of injury from an exposure to an arc flash hazard exists.

~~Informational Note No. 1: An electrically safe work condition is a state wherein all hazardous electrical conductors or circuit parts to which a worker might be exposed are placed and maintained in a de-energized state, for the purpose of temporarily eliminating electrical hazards.~~

Informational Note: See 120.2 through 120.6 for requirements to establish and verify an electrically safe work condition for the period of time for which the state is maintained.

Exception No. 1: Normal operation of electric equipment shall be permitted where a normal operating condition exists. A normal operating condition exists when all of the following conditions are satisfied:

- (1) *The equipment is properly installed.*
- (2) *The equipment is properly maintained.*
- (3) *The equipment is rated for the available fault current.*
- (4) *The equipment is used in accordance with instructions included in the listing and labeling and in accordance with manufacturer's instructions.*
- (5) *The equipment doors are closed and secured.*
- (6) *All equipment covers are in place and secured.*
- (7) *There is no evidence of impending failure.*

Informational Note No. 1: The phrase *properly installed* means that the equipment is installed in accordance with applicable industry codes and standards and the manufacturer's recommendations. The phrase *properly maintained* means that the equipment has been maintained in accordance with the manufacturer's recommendations and applicable industry codes and standards. The phrase *evidence of impending failure* means that there is evidence such as arcing, overheating, loose or bound equipment parts, visible damage, deterioration, or water damage.

Informational Note No. 2: See NEMA GD 1-2019, *Evaluating Water-Damaged Electrical Equipment*, as an example of a document that provides further information on evaluating electrical equipment that may have been exposed to water.

Exception No. 2: An energized disconnecting means or isolating element shall be permitted to be operated to achieve an electrically safe work condition or to return equipment to service that has been placed in an electrically safe work condition. The equipment supplying the disconnecting means or isolating element shall not be required to be placed in an electrically safe work condition provided a risk assessment is performed and there is no unacceptable risk identified.

Exception No. 3: Energized work shall be permitted where the employer can demonstrate that the task to be performed is infeasible in a de-energized state due to equipment design or operational limitations.

Informational Note: Examples of work that might be performed within the limited approach boundary of exposed energized electrical conductors or circuit parts because of infeasibility due to equipment design or operational limitations include performing diagnostics and testing (for example e.g., start-up or troubleshooting) of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous process that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment.

Exception No. 4: Energized work shall be permitted where the employer can demonstrate that de-energizing introduces additional hazards or increased risk.

Informational Note: Examples of additional hazards or increased risk include, but are not limited to, interruption of life-support equipment, deactivation of emergency alarm systems, and shutdown of hazardous location ventilation equipment.

Exception No. 5: Energized electrical conductors and circuit parts that operate at less than 50 volts shall not be required to be de-energized where the capacity of the source and any overcurrent protection between the energy source and the worker are considered and it is determined that there will be no increased exposure to electrical burns or to explosion due to electric arcs.

(C) Requirements Until Established.

Electrical conductors and circuit parts shall not be considered to be in an electrically safe work condition until all of the applicable requirements of 120.2 through 120.6 have been met.

Safe work practices applicable to the circuit voltage and energy level shall be used until such time that electrical conductors and circuit parts are in an electrically safe work condition.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
70E_SCR-5_110.2.docx	FINAL	

Submitter Information Verification

Committee: NEC-AAC

Submittal Date: Fri Dec 16 17:56:13 EST 2022

Committee Statement

Committee Statement: Informational Note No. 2 to Section 110.2(B) in the committee's second draft action (Informational Note No.2 to Section 110.2(A) in the First Draft Report) is deleted because it was not revised by the technical committee for NEC Style Manual compliance as directed by the Correlating Committee in Public Comment No. 167. As a result of this action, there will be a single informational note following Section 110.2(B)(2).

Ballot Results

✔ **This item has passed ballot**

12 Eligible Voters

0 Not Returned

12 Affirmative All

0 Affirmative with Comments

0 Negative with Comments

0 Abstention

Affirmative All

Gallo, Ernest J.

Hickman, Palmer L.

Hittinger, David L.

Holub, Richard A.

Hunter, Dean C.

Kendall, David H.

Manche, Alan

McDaniel, Roger D.

Osborne, Robert D.

Porter, Christine T.

Schultheis, Timothy James

Williams, David A.

NFPA 70E CC SD FWD Ballot Final Report
Election:70E_A2023_NEC_AAC_SDForward_Ballot
Results by Revision

I am in agreement with forwarding NFPA 70E through the Development Process, which includes the posting of the Second Draft Report and opening of the standard to receive NITMAMs. Note: A negative vote will signal your intent to return the whole report to the appropriate Technical Committee for further study.

Eligible to Vote: 12

Not Returned : 0

<u>Vote Selection</u>	<u>Votes</u>	<u>Comments</u>
Affirmative	12	
Palmer L. Hickman		I have no comment to make with this affirmative.
Roger D. McDaniel		I am in Agreement with forwarding NFPA 70E Through the Development Process.
Alan Manche		I am in agreement with forwarding NFPA 70E through the Development Process, which includes the posting of the Second Draft Report and opening of the standard to receive NITMAMs
Ernest J. Gallo		I am in agreement with forwarding NFPA 70E through the Development Process.
David L. Hittinger		Agree
Christine T. Porter		agree
Robert D. Osborne		Agree
Timothy James Schultheis		I am in agreement with forwarding NFPA 70E through the Development Process
David H. Kendall		I am in agreement with forwarding NFPA 70E through the Development Process.
Dean C. Hunter		I support forwarding NFPA 70E through the Development Process, which includes the posting of the Second Draft Report and opening of the standard to receive NITMAMs.
David A. Williams		'Comment' is required for 'I am in agreement with forwarding NFPA 70E through the Development Process, which includes the posting of the Second Draft Report and opening of the standard to receive NITMAMs. Note: A negative vote will signal your intent to return the whole report to the appropriate Technical Committee for further study.'
Richard A. Holub		Agree.
Negative	0	
Abstain	0	