Report of the NFPA Motions Committee

for the

2025 NFPA Technical Meeting

I. Introduction

The 2025 NFPA Technical Meeting will take place live, in Las Vegas, Nevada on Thursday, June 19, 2025 and Friday, June 20, 2025 at the Mandalay Bay Convention Center. The schedule of standards to be presented for debate of Certified Amending Motions is included within this report, with the approved order of Certified Amending Motions following. Note that the final order in which Certified Amending Motions are called may be amended at the Motion Committee's discretion. Any changes will be posted at www.nfpa.org/2025techsession, should the ordering be changed prior to initiation of the Technical Meeting.

The Standards Council, as well as NFPA, sincerely appreciates your continued interest and support of the important step of the Technical Meeting in the NFPA standards development process. Annually, the Technical Meeting finalizes standards activities and the record to assist the Standards Council in determining the degree of consensus achieved during the Fall and Annual revision cycles (this year, that is limited to the Annual cycle as no NITMAMs were certified on Fall '24 standards). Complete information and instructions on how to participate in Las Vegas on June 19th and 20th are now available at www.nfpa.org/2025techsession and will be updated regularly, and as necessary.

The Motions Committee, as appointed by the Chair of the Standards Council in accordance with the *NFPA Technical Meeting Convention Rules* to certify proper amending motions and otherwise review and act on submitted Notices of Intent to Make a Motion (NITMAMs) on NFPA standards, consists of NFPA Standards Council Members Dr. Rodger Reiswig (Chair), Michael Crowley, Jeffrey Foisel, Randy Krause, Dwayne Sloan, and Victoria Valentine. The currently appointed Motions Committee met on May 19, 2025 to review and act on NITMAMs submitted on six Annual '25 standards, resulting in Certified Amending Motions for six standards. The Motions Committee met on December 4, 2024 to review and act on NITMAMs submitted on one ERRS Fall 2024 Revision Cycle, resulting in no Certified Amending Motions for pursuit at the 2025 Technical Meeting which was documented in the Fall 2024 Report of the Motions Committee and posted on December 5, 2024 at www.nfpa.org/2025techsession. All Certified Amending Motions from the Annual '25 standards may be acted on during the 2025 NFPA Technical Meeting at the live event in Las Vegas.

The Report of the Motions Committee documents and identifies: (1) Certified Amending Motions that may be presented at the 2025 NFPA Technical Meeting (Tech Session); (2) NITMAMs that the Motions Committee did not certify per the *Regulations Governing the Development of NFPA Standards*; and (3) NITMAMs for which the Motions Committee approved withdrawal at the request of the submitter. Additionally, this Report includes the order in which standards will present at the 2025 Technical Meeting. The final order in which individual Certified Amending Motions will be presented for debate at the Technical Meeting will be posted separately at www.nfpa.org/2025techsession and updated should Certified Amending Motions be requested and approved for withdrawal between now and the opening of the Technical Meeting.

Note that in instances of identical Certified Amending Motions submitted by multiple individuals and Certifying Amending Motions resulting in the same recommended text, the Motions Committee may direct that they be identified and presented as a single motion for consideration by the membership. The Motions

Committee has taken such action on Certified Amending Motions scheduled for debate during the 2025 Technical Meeting; specifically, there are CAMs grouped by the Motions Committee for NFPA 855 and NFPA 70.

This report concludes with documentation of each Certified Amending Motion setting forth the submitter's motion in legislative text and the text recommended by the responsible Technical Committee, as included in the Second Draft Report. For further transparency and clarity, the appropriate ballot is also included for the Certified Amending Motions which will require a ballot should the motion pass the vote of the NFPA membership. Please note that for those Certified Amending Motions seeking to return the recommended text to previous edition text, no ballot is required by the *Regulations* and therefore is not included in the agenda. The materials begin on Page 19 of this report.

In reviewing the Report of the Motions Committee, the following information is important to note:

- The Certified Amending Motions set forth herein are proper and permissible, therefore eligible for presentation and consideration of the membership during the 2025 NFPA Technical Meeting upon commencement of the meeting, June 19th, 2025 and will conclude on June 20th, 2025.
- Only Certified Amending Motions set forth herein will be presented during the Technical Meeting.
- In accordance with 1.6.2 of the *Regulations*, anyone who is dissatisfied with the results of the Certified Amending Motions at the conclusion of the 2025 NFPA Technical Meeting or the result of the Technical Committee amending ballots have the right to appeal the results. Please refer to Section 1.6.2 of the *Regulations* for the deadlines that apply for filing such appeals. The final date to file such an appeal will be noted with the results of the actions following the conclusion of the Technical Meeting.

The information included above is intended to provide a general introduction to the 2025 NFPA Technical Meeting. Please check the Technical Meeting website regularly for more information, reminders and instructions about participation in the 2025 Technical Meeting at www.nfpa.org/2025techsession.

II. Certified Amending Motions

Six standards processed in the Annual '25 revision cycle and no standards processed in the Fall '24 revision cycle have Certified Amending Motions to be presented and acted upon at the 2025 NFPA Technical Meeting. The certified motions are documented on pages 4-12 of this report.

III. NITMAMs Not Certified

Of the NITMAMs received on Annual '25 revision cycle standards, there were four NITMAM which were not certified by the Motions Committee. Of the NITMAMs received on the Fall '24 revision cycle standards, one NITMAM was not certified by the Motions Committee. The submissions not certified are documented on pages 14 and 15, respectively.

IV. NITMAMs Requested to be Withdrawn

Of the NITMAMs received on Annual '25 revision cycle standards, five have been approved as withdrawn by the Motions Committee as of the posting of this report and following closing of the NITMAM submission period. Of the NITMAMs received on the Fall '24 revision cycle standards, none required action by the Motions Committee for withdrawal following closing of the NITMAM submission period. The approved withdrawn NITMAMs are documented on page 16 of this report.

V. Consent Standards

Any standard which receives no comments, second revisions, or NITMAMs resulting in Certified Amending Motions is considered a "Consent Standard" in accordance with the *Regulations Governing the Development of NFPA Standards*. A consent standard is not presented at the NFPA Technical Meeting but is rather forwarded directly to the Council for issuance. For complete listing and information regarding issuance of Consent Standards for the Annual '25 and Fall '24 revision cycles, please consult www.nfpa.org/2025techsession.

Certified Amending Motions

Annual 2025 Revision Cycle

NFPA Standard	CAM #	Section/Paragraph	Person(s) Authorized to Make the Motion	Certified Amending Motion
NFPA 10	10-4	7.2.5	William Koffel, Koffel Associated, Inc.	Reject Second Revision No. 7 and any related portions of First Revisions
NFPA 10	10-11	7.2.1	Lennon Peake, Koffel Associates, Inc.	Accept Public Comment No. 13
NFPA 25	25-3	4.3.6	Steven Schwartz, CFP Fire Protection Inc.	Reject Second Revision No. 3
NFPA 25	25-10	14.3.1	Vincent Powers, National Fire Sprinkler Association	Reject Second Revision No. 38 and related First Revisions (Nos. 87 and 117)
NFPA 70	70-38	250.52(A)(3)	Peter Graser, Copperweld Biometallics, LLC and American Bimetallic Assoc.	Accept Public Comment No. 218
NFPA 70	70-41	250.52(A)(4)	Peter Graser, Copperweld Biometallics, LLC and American Bimetallic Assoc.	Accept Public Comment No. 193
NFPA 70	70-45	Table 501.10(A)(1)	Thomas Dunne, IBEW	Reject an Identifiable Part of Second Revision No. 7675
NFPA 70	70-46	Table 501.10(A)(2)	Thomas Dunne, IBEW	Reject an Identifiable Part of Second Revision No. 7686
NFPA 70	70-48	440.14	Ryan Jackson, Self Employed	Reject Second Revision No. 8079
NFPA 70	70-58	625.54	Rodney McGee, University of Delaware	Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions (same as 70-77; 70-147; 70-151; and 178)(grouped as a single motion for consideration at Tech Session)

NFPA 70	70-61	110.22	Mark Hilbert, MR Hilbert Electrical Inspections & Training	Reject Second Revision No. 7626 and any Related First Revisions and First Correlating Revisions
NFPA 70	70-77	625.54	Indra Wiryadinata, Tesla, Inc.	Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions (same as 70-58; 70-147; 70-151; and 178)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-79	215.18(A)	Daniel Buuck, National Association of Home Builders	Accept Public Comment No. 1938
NFPA 70	70-82	625.44	Ryan Jackson, Self Employed	Reject Second Revision No. 8104 and any Related First Revisions and First Correlating Revisions
NFPA 70	70-83	210.12(B)	Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association	Accept Committee Comment No. 7738 (same as 70-89)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-84	210.12(B)	Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association	Accept Committee Comment No. 7743 (originally submitted as Accept Public Comment No. 1681) (same as 70-88)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-85	210.8(D)	Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association	Reject Second Revision No. 7617
NFPA 70	70-87	120.13	Keith Waters, Schneider Electric	Accept Public Comment No. 1854
NFPA 70	70-88	210.12(B)	Keith Waters, Schneider Electric	Accept Committee Comment No. 7743 (originally submitted as Accept Public Comment No. 1741) (same as 70-84)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-89	210.12(B)	Keith Waters, Schneider Electric	Accept Committee Comment No. 7738 (same as 70-83)(grouped as a single motion for consideration at Tech Session)

NFPA 70	70-91	110.26	Richard Holub, The DuPont Company, Inc.	Reject Second Revision No. 7636
NFPA 70	70-93	422.5	Keith Waters, Schneider Electric	Accept Public Comment No. 1853
NFPA 70	70-105	Table 310.16	Christel Hunter, Cerro Wire	Reject Second Revision No. 8481
NFPA 70	70-106	310.5(A)	Christel Hunter, Cerro Wire	Accept Public Comment No. 1395
NFPA 70	70-107	210.8(A)	David Bixby, ACCA	Accept Public Comment No. 1817
NFPA 70	70-108	625.43(B)	Ryan Jackson, Self Employed	Reject an Identifiable Part of Second Correlating Revision No. 117
NFPA 70	70-114	625.4	Keith Jewell, Affiliation not provided	Reject Second Revision No. 7853 (same as 70-123; 70-128; 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-120	625.43(E)	Bryce Nesbitt, Obviously Technical Inspections	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-133; 70-136; 70-138; 70-141; 70-144; 70-148; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-122	700.24	Jason Potterf, Cisco	Accept Public Comment No. 1797
NFPA 70	70-123	625.4	Stefan Kozma, Affiliation not provided	Reject Second Revision No. 7853 (same as 70-114; 70-128; 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-127	625.43	Indra Wiryadinata, Tesla	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related First Revisions and First Correlating Revisions

NFPA 70	70-128	625.4	Bryce Nesbitt, Obviously Technical Inspections	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-129	315.2	Paolo Rocca, 3M	Accept an Identifiable Part of Public Comment No. 1755
NFPA 70	70-130	210.8(F) Exception No. 2	Thomas Deary, AHRI	Accept Committee Comment No. 7584 (same as 70-160)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-132	625.4	Dennis Murphy, EV Charging for All Coalition	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-133	625.43(E)	Dennis Murphy, EV Charging for All Coalition	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-136; 70-138; 70-141; 70-144; 70-148; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-134	625.54(B)	Dennis Murphy, EV Charging for All Coalition	Reject an Identifiable Part of Second Revision No. 7875 (same as 70-182)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-135	625.54(B)(1)	Paul Nijssen, EVCHARGE4U, Inc.	Reject an Identifiable Part of Second Revision Number No. 7875 (same as 70-142; 70-145; and 70-179)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-136	625.43(E)	Paul Nijssen, EVCHARGE4U, Inc.	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-138; 70-141; 70-144; 70-148; 70-149; 70-177; and 70-

				180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-137	625.4	Paul Nijssen, EVCHARGE4U, Inc.	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-140; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-138	625.43(E)	Armin Karcher, Affiliation not provided	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-141; 70-144; 70-148; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-140	625.4	David Graves, simpleSwitch	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-143; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-141	625.43(E)	David Graves, simpleSwitch	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-144; 70-148; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-142	625.54(B)(1)	David Graves, simpleSwitch	Reject an Identifiable Part of Second Revision Number No. 7875 (same as 70-135; 70-145; and 70-179)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-143	625.4	Sven Thesen, Sven Thesen & Associates	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-164; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-144	625.43(E)	Sven Thesen,	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and

			Sven Thesen & Associates	First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-141; 70-148; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-145	625.54(B)(1)	Sven Thesen, Sven Thesen & Associates	Reject an Identifiable Part of Second Revision NumberNo. 7875 (same as 70-135; 70-142; and 70-179)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-147	625.54	Shannon Dulaney, It's Electric, Inc.	Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions (same as 70-58; 70-77; 70-151; and 178)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-148	625.43(E)	Genevieve Cullen, EDTA	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-141; 70-144; 70-149; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-149	625.43(E)	Shannon Dulaney, It's Electric, Inc.	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-141; 70-144; 70-148; 70-177; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-150	Article 624	Achim Ginsberg-Klemmt, GismoPower, LLC	Accept Public Comment No. 1189
NFPA 70	70-151	625.54	Genevieve Cullen, EDTA	Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions (same as 70-58; 70-77; 70-147; and 178)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-156	620.16(C)	Kevin Arnold, Eaton Bussmann	Reject Second Revision No. 7740

NFPA 70	70-160	210.8(F) Exception No. 2	Erik Sprague, Mitsubishi Electric US, Inc.	Accept Committee Comment No. 7584 (same as 70-130)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-162	Article 100 Definition of Electric Vehicle	Achim Ginsberg-Klemmt, GismoPower, LLC	Reject Second Revision No. 7898 and any Related First Revisions and First Correlating Revisions
NFPA 70	70-164	625.4	Kyle Wiens, iFixit	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-143; 70-173; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-172	Article 100 Definition of Electric Vehicle	Achim Ginsberg-Klemmt, GismoPower, LLC	Accept Public Comment No. 1225
NFPA 70	70-173	625.4	Mathew Dillon, Affiliation not provided	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-143; 70-164; 70-174; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-174	625.4	Lucas Gutterman, U.S. Public Interest Research Group	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-175; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-175	625.4	Alon Doron, EV Seg	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; and 70-176)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-176	625.4	Achim Ginsberg-Klemmt, GismoPower, LLC	Reject Second Revision No. 7853 (same as 70-114; 70-123; 70-128: 70-132; 70-137; 70-140; 70-143; 70-164; 70-173; 70-174; and 70-175)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-177	625.43(E)	Alon Doron, EV-Seg	Reject an Identifiable Part of Second Correlating Revision No. 117 and any

				Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-141; 70-144; 70-148; 70-149; and 70-180)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-178	625.54	Alon Doron, EV-Seg	Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions (same as 70-58; 70-77; 70-147; and 70-151)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-179	625.54(B)(1)	Achim Ginsberg-Klemmt, GismoPower, LLC	Reject an Identifiable Part of Second Revision Number No. 7875 (same as 70-135; 70-142; and 70-178)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-180	625.43(E)	Achim Ginsberg-Klemmt, GismoPower, LLC	Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions (same as 70-120; 70-133; 70-136; 70-138; 70-141; 70-144; 70-148; 70-149; and 70-177)(grouped as a single motion for consideration at Tech Session)
NFPA 70	70-181	625.44(A) and (B)	Bryce Nesbitt, Obviously Technical Inspections	Accept an Identifiable Part of Public Comment No. 1680 (with permission of Public Comment submitter)
NFPA 70	70-182	625.54(B)	Bryan Nesbitt, Obviously Technical Inspections	Reject an Identifiable Part of Second Revision No. 7875 (same as 70-134)(grouped as a single motion for consideration at Tech Session)
NFPA 130	130-3	8.4.1	Marcelo Hirschler, GBH International	Reject Second Revision No. 22
NFPA 130	130-4	8.4.1.17	Marcelo Hirschler, GBH International	Reject Second Revision No. 18
NFPA 130	130-5	A.5.2.4	Marcelo Hirschler, GBH International	Reject an Identifiable Part of Second Revision No. 1
NFPA 130	130-6	5.2.4	Marcelo Hirschler, GBH International	Accept Public Comment No. 6

NFPA 855	855-12	15.13.1`	William Koffel, Koffel Associated, Inc.	Reject Second Revision No. 20
NFPA 855	855-15	4.9.4.1	Tom Zornes, Siemens	Accept an Identifiable Part of Public Comment No. 139
NFPA 855	855-21	4.9.4.1	Craig Nixon, Fire Pro	Reject Second Revision No. 41 including any related portions of First Revisions and First Correlating Revisions
NFPA 855	855-24	Annex G	Jody Leber, CSA Group	Reject Second Revision No. 78 (same as 855-35)(grouped as a single motion for consideration at Tech Session)
NFPA 855	855-29	A.9.2.1	Michael Becker, CSA Group	Reject an Identifiable Part of Second Revision No. 48
NFPA 855	855-31	9.7.6.7.3	Povl Hansen, STIF	Accept Public Comment No. 266
NFPA 855	855-35	Annex G	Abid Anwar, Tesla, Inc.	Reject Second Revision No. 78 (same as 855-24)(grouped as a single motion for consideration at Tech Session)
NFPA 855	855-36	4.10	Abid Anwar, Tesla, Inc.	Reject Second Revision No. 21 including any related portions of First Revisions and First Correlating Revisions
NFPA 855	855-38	4.12	Abid Anwar, Tesla, Inc.	Reject an Identifiable Part of Second Revision No. 9
NFPA 855	855-41	4.10.5	Abid Anwar, Tesla, Inc.	Reject Second Revision No. 154
NFPA 1850	1850-10	11.1.1.1	Jeff Knobbe, Alameda County Fire Department & Bauer Compressor, Inc.	Reject an Identifiable Part of Second Revision No. 36
NFPA 1850	1850-11	Entire Standard	Jeff Knobbe, Alameda County Fire Department & Bauer Compressor, Inc.	Return New Standard
NFPA 1850	1850-13	11.3.7.1	Jeff Knobbe, Alameda County Fire Department & Bauer Compressor, Inc.	Reject Second Revision No. 55

Certified Amending Motions

Fall 2024 and ERRS Custom Fall 2024 Revision Cycles

Note: There were no NITMAM submitted which were Certified.

NITMAMs Not Certified

Annual 2025 Revision Cycle

NFPA Standard	CAM #	Section/Paragraph	Person(s) Authorized to Make the Motion	Motion
NFPA 70	70-96	625.54 (B)(1) and (B)(2) Exception No. 2	Jacob Riddle, Affiliation not provided	Accept an Identifiable Part of Second Revision No. 7875 *Note: Submitter seeking to add text
NFPA 70	70-98	625.54 (B)(1) and (B)(2) Exception No. 2	Jacob Riddle, Affiliation not provided	Accept an Identifiable Part of Second Revision No. 7875 *Note: Submitter seeking to add text
NFPA 70	70-157	Article 624	Achim Ginsberg-Klemmt, GismoPower, LLC	Accept Public Comment No. 1472 *Note: Submitter is not the submitter of the Public Comment
NFPA 70	70-163	625.44(A) and (B)	Achim Ginsberg-Klemmt, GismoPower, LLC	Accept Public Comment No. 1680 *Note: Submitter is not the submitter of the Public Comment

NITMAMs Not Certified

Fall 2024 and ERRS Custom Fall 2024 Revision Cycles

NFPA Standard	NITMAM #	Section/Paragraph	Submitter of Motion	Proposed Amending Motion
NFPA 1950	1950-1	4.1.8 and 4.1.9	Sean DeCrane, International Association of Fire Fighters	Reject an Identifiable Part of Second Correlating Revision No. 14

Withdrawn NITMAM

Annual 2025 Revision Cycle

NFPA Standard	NITMAM #	Section/Paragraph	Submitter of Motion	Proposed Amending Motion
NFPA 70	70-146	625.43(B)	Albert Iaconangelo, ConnectDER, Inc.	Reject an Identifiable Part of Second Correlating Revision No. 117
NFPA 70	70-183	625.54	Charles Sullivan, Thayer School of Engineering at Dartmouth	Accept Public Comment No. 130
NFPA 70	70-184	625.4	Charles Sullivan, Thayer School of Engineering at Dartmouth	Reject Second Revision No.7853 and any related portions of First Revisions and First Correlating Revisions
NFPA 855	855-34	9.6.6.6.3	Grant Pierce, Vigilex Energy STIF	Reject an Identifiable Part of Public Comment No. 266
NFPA 1850	1850-12	11.3.7.1	Jeff Knobbe, Alameda County Fire Department and Bauer Compressor Inc.	Reject an Identifiable Part of Second Revision No. 55

Withdrawn NITMAM

Fall 2024 and ERRS Custom Fall 2024 Revision Cycles

Note: There were no NITMAM submitted which required Approval by the Motions Committee for Withdrawal

2025 Technical Meeting Schedule

Certified Amending Motions (CAMs)
June 19-20, 2025

Standards with Certified Amending Motions for Consideration **Thursday, June 19, 2025**
Annual 2025 Standards
NFPA 10, *Standard for Portable Fire Extinguishers*
NFPA 25, *Standard for the Installation, Testing, and Maintenance of Water-Based Fire Protection Systems*
NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*
NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*
NFPA 1850, *Standard on Protective Ensembles for Structural and Proximity Firefighting and Self-Contained Breathing Apparatus (SCBA)*
NFPA 70®, *National Electrical Code®*
Standards with Certified Amending Motions for Consideration **Friday, June 20, 2025**
NFPA 70®, *National Electrical Code®*

****Note:** The order of CAMs for presentation at the Technical Meeting will post separately on www.nfpa.org/2025techsession and www.nfpa.org/nitmam as "2025 Technical Meeting Agenda".

NFPA 10, *Portable Fire Extinguishers*
Submitter: William Koffel, Koffel Associates, Inc.

Certified Amending Motion to Reject Second Revision No. 7 and any related portions of First Revisions	
CAM No. 10-4	**Recommended Text if Motion Passes:** ~~**7.2.5 Performance-Based Inspection Program.**~~ ~~**7.2.5.1**~~ ~~As an alternate means of compliance with 7.2.1 through 7.2.4, subject to the approval of the authority having jurisdiction, fire extinguishers shall be permitted to be inspected via a written performance-based inspection program.~~ ~~**7.2.5.2**~~ ~~Goals established by a performance-based program shall provide assurance that the fire extinguisher remains in proper operating condition.~~ ~~**7.2.5.3***~~ ~~Inspection program data shall be evaluated by an independent third-party acceptable to the authority having jurisdiction.~~ ~~**A.7.2.5.3**~~ ~~The data to be evaluated by the authority having jurisdiction for the performance-based inspection program is to be evaluated by a third party, acceptable to the authority having jurisdiction, to verify the initial data integrity.~~ ~~**7.2.5.4***~~ ~~Technical justification for a performance-based inspection program shall be documented and submitted to the authority having jurisdiction for approval.~~ ~~**A.7.2.5.4**~~ ~~Technical justification for the performance-based inspection program should include historical and site-specific data acceptable to the authority having jurisdiction. Three years of monthly inspection data and annual maintenance reports should be included in the technical justification. It should also include failures categorized by each item listed in 7.2.2. Failures observed at the time of inspection should be included, as should failures that were remedied at the time of the inspection.~~ ~~**7.2.5.4.1**~~ ~~A technical justification shall be provided for each site.~~ ~~**7.2.5.4.1.1***~~ ~~For sites that are made up of multiple buildings, the performance-based inspection program shall address individual buildings and their environments.~~ ~~**A.7.2.5.4.1.1**~~ ~~An individual technical justification should be provided for each building (e.g., each freestanding structure). This is important because conditions can vary between buildings that are part of the same complex or campus. For example, the data might be different for a student housing building on campus compared to a classroom or physical plant building.~~ ~~**7.2.5.5**~~ ~~An inspection shall be performed in accordance with 7.2.1 at intervals not to exceed 90 days.~~

~~**7.2.5.6***~~

~~A review of inspection program data shall be conducted at intervals acceptable to the authority having jurisdiction, not to exceed three years, to verify that the performance-based inspection program continues to meet the goal established by 7.2.5.2.~~

~~**A.7.2.5.6**~~

~~The data to be reviewed should include inspection reports and annual maintenance reports.~~

~~**7.2.5.7**~~

~~A review of inspection program data shall be conducted when there is a change of hazard, occupancy, or ownership to verify that the performance-based inspection program continues to meet the goal established by 7.2.5.2.~~

Recommended Text if Motion Fails:

7.2.5 Performance-Based Inspection Program.

7.2.5.1

As an alternate means of compliance with 7.2.1 through 7.2.4, subject to the approval of the authority having jurisdiction, fire extinguishers shall be permitted to be inspected via a written performance-based inspection program.

7.2.5.2

Goals established by a performance-based program shall provide assurance that the fire extinguisher remains in proper operating condition.

7.2.5.3*

Inspection program data shall be evaluated by an independent third-party acceptable to the authority having jurisdiction.

A.7.2.5.3

The data to be evaluated by the authority having jurisdiction for the performance-based inspection program is to be evaluated by a third party, acceptable to the authority having jurisdiction, to verify the initial data integrity.

7.2.5.4*

Technical justification for a performance-based inspection program shall be documented and submitted to the authority having jurisdiction for approval.

A.7.2.5.4

Technical justification for the performance-based inspection program should include historical and site-specific data acceptable to the authority having jurisdiction. Three years of monthly inspection data and annual maintenance reports should be included in the technical justification. It should also include failures categorized by each item listed in 7.2.2. Failures observed at the time of inspection should be included, as should failures that were remedied at the time of the inspection.

7.2.5.4.1

A technical justification shall be provided for each site.

7.2.5.4.1.1*

For sites that are made up of multiple buildings, the performance-based inspection program shall address individual buildings and their environments.

A.7.2.5.4.1.1

An individual technical justification should be provided for each building (e.g., each freestanding structure). This is important because conditions can vary between buildings that are part of the same complex or campus.

	For example, the data might be different for a student housing building on campus compared to a classroom or physical plant building. **7.2.5.5** An inspection shall be performed in accordance with 7.2.1 at intervals not to exceed 90 days. **7.2.5.6*** A review of inspection program data shall be conducted at intervals acceptable to the authority having jurisdiction, not to exceed three years, to verify that the performance-based inspection program continues to meet the goal established by 7.2.5.2. **A.7.2.5.6** The data to be reviewed should include inspection reports and annual maintenance reports. **7.2.5.7** A review of inspection program data shall be conducted when there is a change of hazard, occupancy, or ownership to verify that the performance-based inspection program continues to meet the goal established by 7.2.5.2.

NFPA 10, *Portable Fire Extinguishers*
Submitter: Lenon Peake, Koffel Associates, Inc.

Certified Amending Motion to Accept Public Comment No. 13

CAM No. 10-11

Recommended Text if Motion Passes:

7.2.1 Inspection Frequency.
7.2.1.1*
Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*
Fire extinguishers and Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days, except in buildings containing a hospital, where the interval shall be quarterly.

7.2.1.2.1
Fire extinguishers and Class D extinguishing agents shall be inspected at least once per calendar month, except in buildings containing a hospital where the interval shall be quarterly.

7.2.1.3*
Fire extinguishers and Class D extinguishing agents shall be manually inspected daily, weekly or ~~weekly when~~ monthly when conditions exist that indicate the need for more frequent inspections.

7.2.1.4
Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

Recommended Text if Motion Fails:

7.2.1 Inspection Frequency.
7.2.1.1*
Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*
Fire extinguishers and Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days.

7.2.1.2.1
Fire extinguishers and Class D extinguishing agents shall be inspected at least once per calendar month.

7.2.1.3*
Fire extinguishers and Class D extinguishing agents shall be manually inspected daily or weekly when conditions exist that indicate the need for more frequent inspections.

7.2.1.4
Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

AMENDMENT BALLOT No. 10-11

Technical Committee on Portable Fire Extinguishers

NFPA 10, *Standard for Portable Fire Extinguishers*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 10-11 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

7.2.1 Inspection Frequency.
7.2.1.1*
Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*
Fire extinguishers and Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days, except in buildings containing a hospital, where the interval shall be quarterly.

7.2.1.2.1
Fire extinguishers and Class D extinguishing agents shall be inspected at least once per calendar month, except in buildings containing a hospital where the interval shall be quarterly.

7.2.1.3*
Fire extinguishers and Class D extinguishing agents shall be manually inspected daily, weekly or ~~weekly when~~ monthly when conditions exist that indicate the need for more frequent inspections.

7.2.1.4
Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 10-11 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

7.2.1 Inspection Frequency.
7.2.1.1*
Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*
Fire extinguishers and Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days.

7.2.1.2.1

Fire extinguishers and Class D extinguishing agents shall be inspected at least once per calendar month.

7.2.1.3*
Fire extinguishers and Class D extinguishing agents shall be manually inspected daily or weekly when conditions exist that indicate the need for more frequent inspections.

7.2.1.4
Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

NFPA 25, *Inspection, Testing and Maintenance of Water-Based Fire Protection*
Submitter: Steven Schwartz, CFP Fire Protection, Inc.

Certified Amending Motion to Reject Second Revision No. 3	
CAM No. 25-3	**Recommended Text if Motion Passes:** 4.3.6 All records shall be maintained in a documentation cabinet, where required.
	Recommended Text if Motion Fails: **Note: No text recommended at Second Draft.*

AMENDMENT BALLOT No. 25-3

Technical Committee on Inspection, Testing, and Maintenance of Water-Based Systems

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 25-3 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

4.3.6

All records shall be maintained in a documentation cabinet, where required.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 25-3 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text.

NFPA 25, *Inspection, Testing and Maintenance of Water-Based Fire Protection*
Submitter: Vincent Powers, National Fire Sprinkler Association

Certified Amending Motion to Reject Second Revision No. 38 and any related portions of First Revisions and First Correlating Revisions (*Note: Detail Second Revision No. 86 is preserved in list item 14)

CAM No. 25-10

Recommended Text if Motion Passes:

14.3.1*

An obstruction investigation shall be conducted for system or yard main piping wherever any of the following conditions exist:

1. Defective intake for fire pumps taking suction from open bodies of water
2. Discharge of obstructive material during routine water tests
3. Foreign materials in fire pumps, dry pipe valves, or check valves
4. Foreign material in water during drain tests or plugging of inspector's test connection(s)
5. Unknown materials heard in the system piping during draining, refilling, or otherwise flowing water through the system
6. Plugged sprinklers
7. Foreign organic or inorganic material with the potential to obstruct pipe or sprinklers found in the pipe
8. Failure to flush yard piping or surrounding public mains following new installations or repairs
9. Record of broken public mains in the vicinity
10. Abnormally frequent false tripping of a dry pipe valve(s)
11. System returned to service after an extended shutdown (i.e., greater than 1 year)
12. Reason to believe that the sprinkler system contains sodium silicate or highly corrosive fluxes in copper systems
13. System supplied with raw water via the fire department connection
14. Pinhole leaks or leakage caused by internal corrosion
15. *A 25 percent increase or a 5-second increase for portions of systems protecting dwelling units in the total water delivery time for dry pipe systems and double interlock preaction systems, with normal air pressure on the system and starting at the time of fully opened inspection test connection, when compared to the original system acceptance test
16. *Failure to maintain a nitrogen supply, except in instances of preplanned impairments~~.~~, installed in accordance with NFPA 13 when a Hazen-Williams *C* value of 120 is used for dry and preaction systems.

    ~~A.4.1.5.1(1)~~A.14.3.1(16)

    Where nitrogen is used to allow for an increased C-value in accordance with NFPA 13, the nitrogen supply should be ~~as follows:~~ from a listed nitrogen generator permanently installed, should be capable of supplying and maintaining at least 98 percent nitrogen concentration throughout the system at a minimum leakage rate of 1.5 psi (0.1 bar) per hour, should be provided with a means of verifying nitrogen concentration provided for each system where an increased C value is used, should be installed per the manufacturer's instruction, and should be maintained in accordance with this standard.

Nitrogen systems are equipped with an air compressor capable of restoring system air pressure within 30 or 60 minutes. It is not the intent of this section to require a 98 percent concentration of nitrogen within the 30 or 60 minutes as required by this standard.

~~1. From a listed nitrogen generator permanently installed~~
~~2. Capable of supplying and maintaining at least 98 percent nitrogen concentration throughout the system at a minimum leakage rate of 1.5 psi (0.1 bar) per hour~~
~~3. Provided with a means of verifying nitrogen concentration for each system where an increased C-value is used~~
~~4. Installed per the manufacturer's instruction~~
~~5. Maintained in accordance with this standard~~

~~In situations where nitrogen is used to mitigate corrosion and extend system life, the piping network should be investigated when the nitrogen system is impaired.~~

Note: This motion does not affect First Revision No. 86 text and therefore "Pinhole leaks or" is maintained in 14.3.1(14).

Recommended Text if Motion Fails:

14.3.1*

An obstruction investigation shall be conducted for system or yard main piping wherever any of the following conditions exist:

1. Defective intake for fire pumps taking suction from open bodies of water
2. Discharge of obstructive material during routine water tests
3. Foreign materials in fire pumps, dry pipe valves, or check valves
4. Foreign material in water during drain tests or plugging of inspector's test connection(s)
5. Unknown materials heard in the system piping during draining, refilling, or otherwise flowing water through the system
6. Plugged sprinklers
7. Foreign organic or inorganic material with the potential to obstruct pipe or sprinklers found in the pipe
8. Failure to flush yard piping or surrounding public mains following new installations or repairs
9. Record of broken public mains in the vicinity
10. Abnormally frequent false tripping of a dry pipe valve(s)
11. System returned to service after an extended shutdown (i.e., greater than 1 year)
12. Reason to believe that the sprinkler system contains sodium silicate or highly corrosive fluxes in copper systems
13. System supplied with raw water via the fire department connection
14. Pinhole leaks or leakage caused by internal corrosion
15. *A 25 percent increase or a 5-second increase for portions of systems protecting dwelling units in the total water delivery time for dry pipe systems and double interlock preaction systems, with normal air pressure on the system and starting at the time of fully opened inspection test connection, when compared to the original system acceptance test
16. *Failure to maintain a nitrogen supply, except in instances of preplanned impairments.

A.14.3.1(16)

Where nitrogen is used to allow for an increased C-value in accordance with NFPA 13, the nitrogen supply should be as follows:

1. From a listed nitrogen generator permanently installed
2. Capable of supplying and maintaining at least 98 percent nitrogen concentration throughout the system at a minimum leakage rate of 1.5 psi (0.1 bar) per hour
3. Provided with a means of verifying nitrogen concentration for each system where an increased C-value is used
4. Installed per the manufacturer's instruction
5. Maintained in accordance with this standard

In situations where nitrogen is used to mitigate corrosion and extend system-life, the piping network should be investigated when the nitrogen system is impaired.

NFPA 70, *National Electrical Code®*

Submitter: Peter Graser, Copperweld Biometallics, LLC and American Bimetallic Assoc.

Certified Amending Motion to Accept Public Comment No. 218	
CAM No. 70-38	**Recommended Text if Motion Passes:** **250.52(A)(3) Concrete-Encased Electrodes.** Concrete-encased electrodes shall consist of at least 6.0 m (20 ft) of either of the following: 1. One or more bare or zinc galvanized or other electrically conductive coated rebar of not less than 13 mm (**1/2** in.) in diameter, installed in one continuous 6.0 m (20 ft) length, or, if in multiple pieces, connected together by steel tie wires, exothermic welding, welding, or other effective means to create a 6.0 m (20 ft) or greater length 2. Bare copper or grade 40 (40%) copper-clad steel conductor not smaller than 4 AWG Metal components shall be encased by at least 50 mm (2 in.) of concrete and be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth. If multiple concrete-encased electrodes are present at a building or structure, bonding only one into the grounding electrode system shall be permitted. Informational Note: Direct contact with the earth is hindered by insulation, vapor barriers, films, or similar items that separate the concrete from the earth. **Recommended Text if Motion Fails:** **250.52(A)(3) Concrete-Encased Electrodes.** Concrete-encased electrodes shall consist of at least 6.0 m (20 ft) of either of the following: 1. One or more bare or zinc galvanized or other electrically conductive coated rebar of not less than 13 mm (1/2 in.) in diameter, installed in one continuous 6.0 m (20 ft) length, or, if in multiple pieces, connected together by steel tie wires, exothermic welding, welding, or other effective means to create a 6.0 m (20 ft) or greater length 2. Bare copper conductor not smaller than 4 AWG Metal components shall be encased by at least 50 mm (2 in.) of concrete and be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth. If multiple concrete-encased electrodes are present at a building or structure, bonding only one into the grounding electrode system shall be permitted. Informational Note: Direct contact with the earth is hindered by insulation, vapor barriers, films, or similar items that separate the concrete from the earth.

AMENDMENT BALLOT No. 70-38

Code Making Panel 5

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-38 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

250.52(A)(3) Concrete-Encased Electrodes.

Concrete-encased electrodes shall consist of at least 6.0 m (20 ft) of either of the following:

1. One or more bare or zinc galvanized or other electrically conductive coated rebar of not less than 13 mm (**1⁄2** in.) in diameter, installed in one continuous 6.0 m (20 ft) length, or, if in multiple pieces, connected together by steel tie wires, exothermic welding, welding, or other effective means to create a 6.0 m (20 ft) or greater length
2.
3. Bare copper or grade 40 (40%) copper-clad steel conductor not smaller than 4 AWG

Metal components shall be encased by at least 50 mm (2 in.) of concrete and be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth. If multiple concrete-encased electrodes are present at a building or structure, bonding only one into the grounding electrode system shall be permitted.

Informational Note: Direct contact with the earth is hindered by insulation, vapor barriers, films, or similar items that separate the concrete from the earth.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-38 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

250.52(A)(3) Concrete-Encased Electrode.
A concrete-encased electrode shall consist of at least 6.0 m (20 ft) of either of the following:

1. One or more bare or zinc galvanized or other electrically conductive coated rebar of not less than 13 mm (**1⁄2** in.) in diameter, installed in one continuous 6.0 m (20 ft) length, or if in multiple pieces, the rebar shall be connected together by steel tie wires, exothermic welding, welding, or other effective means to create a 6.0 m (20 ft) or greater length
2. Bare copper conductor not smaller than 4 AWG

Metal components shall be encased by at least 50 mm (2 in.) of concrete and shall be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth. If multiple concrete-encased electrodes are present at a building or structure, it shall be permissible to bond only one into the grounding electrode system.

Informational Note: Concrete installed with insulation, vapor barriers, films, or similar items separating the concrete from the earth is not considered to be in “direct contact” with the earth.

NFPA 70, *National Electrical Code®*

Submitter: Peter Graser, Copperweld Biometallics, LLC and American Bimetallic Assoc.

Certified Amending Motion to Accept Public Comment No. 193	
CAM No. 70-41	**Recommended Text if Motion Passes:** **250.52(A)(4) Ground Ring.** A ground ring encircling the building or structure, in direct contact with the earth, consisting of at least 6.0 m (20 ft) of bare copper or 40% copper-clad steel conductor not smaller than 2 AWG.
	Recommended Text if Motion Fails: **250.52(A)(4) Ground Ring.** A ground ring encircling the building or structure, in direct contact with the earth, consisting of at least 6.0 m (20 ft) of bare copper conductor not smaller than 2 AWG. ***NOTE:** Text recommended is same as previous edition text.

AMENDMENT BALLOT No. 70-41

Code Making Panel 5

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-41 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

250.52(A)(4) Ground Ring.

A ground ring encircling the building or structure, in direct contact with the earth, consisting of at least 6.0 m (20 ft) of bare copper or 40% copper-clad steel conductor not smaller than 2 AWG.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-41, and no previous edition text exists, the text supported by the membership vote is simply deleted.

250.52(A)(4) Ground Ring.

A ground ring encircling the building or structure, in direct contact with the earth, consisting of at least 6.0 m (20 ft) of bare copper conductor not smaller than 2 AWG.

NFPA 70, *National Electrical Code®*

Submitter: Thomas Dunne, IBEW

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 7675

CAM No. 70-45

Recommended Text if Motion Passes:

(A)(1) General.
One or more of the wiring methods of Table 501.10(A)(1) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(1) Wiring Methods for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type MC-HL cable	Article 330 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type MC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall contain a separate equipment grounding conductor. (5) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
Type MI cable	Article 332 Part II	(1) The cable shall be terminated with fittings listed for the cable and location. (2) The cable shall be secured and supported in a manner to avoid tensile stress at the termination fittings.
Type ITC-HL cable	Article 335 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type ITC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and application.
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.

Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location. (4) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
IMC (including IMC with supplemental corrosion protection coatings)	Article 342 Part II	(1) The conduit connections shall be threaded.
RMC (including RMC with supplemental corrosion protection coatings)	Article 344 Part II	
PVC conduit	Article 352 Part II	(1) The conduit shall be encased in a concrete envelope a minimum of 50 mm (2 in.) thick and provided with not less than 600 mm (24 in.) of cover measured from the top of the conduit to grade. (2) The concrete encasement shall be permitted to be omitted where it is in accordance with 514.8(C) or 515.8(A). (3) RMC or IMC conduit shall be used for the last 600 mm (24 in.) of the underground run to emergence or to the point of connection to the aboveground raceway. (4) An equipment grounding conductor shall be included to provide for electrical continuity of the raceway system and for grounding of non-current-carrying metal parts.

Informational Note No. 1: See Article 100 for the definition of *restricted industrial establishment [as applied to hazardous (classified) locations]*.

Informational Note No .2: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 3: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.
~~Informational Note No. 4: See 500.8(C)(5) for the ambient temperature range requirements.~~

Recommended Text if Motion Fails:

(A)(1) General.
One or more of the wiring methods of Table 501.10(A)(1) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(1) Wiring Methods for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type MC-HL cable	Article 330 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments.

		(2) The cable shall be listed Type MC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall contain a separate equipment grounding conductor. (5) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
Type MI cable	Article 332 Part II	(1) The cable shall be terminated with fittings listed for the cable and location. (2) The cable shall be secured and supported in a manner to avoid tensile stress at the termination fittings.
Type ITC-HL cable	Article 335 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type ITC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and application.
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.
Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location. (4) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
IMC (including IMC with supplemental corrosion protection coatings)	Article 342 Part II	(1) The conduit connections shall be threaded.
RMC (including RMC with supplemental corrosion protection coatings)	Article 344 Part II	

PVC conduit	Article 352 Part II	(1) The conduit shall be encased in a concrete envelope a minimum of 50 mm (2 in.) thick and provided with not less than 600 mm (24 in.) of cover measured from the top of the conduit to grade. (2) The concrete encasement shall be permitted to be omitted where it is in accordance with 514.8(C) or 515.8(A). (3) RMC or IMC conduit shall be used for the last 600 mm (24 in.) of the underground run to emergence or to the point of connection to the aboveground raceway. (4) An equipment grounding conductor shall be included to provide for electrical continuity of the raceway system and for grounding of non-current-carrying metal parts.

Informational Note No. 1: See Article 100 for the definition of *restricted industrial establishment [as applied to hazardous (classified) locations]*.

Informational Note No .2: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 3: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.

Informational Note No. 4: See 500.8(C)(5) for the ambient temperature range requirements.

AMENDMENT BALLOT No. 70-45

Code Making Panel 14

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-45 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

(A)(1) General.

One or more of the wiring methods of Table 501.10(A)(1) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(1) Wiring Methods for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type MC-HL cable	Article 330 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type MC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall contain a separate equipment grounding conductor. (5) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
Type MI cable	Article 332 Part II	(1) The cable shall be terminated with fittings listed for the cable and location. (2) The cable shall be secured and supported in a manner to avoid tensile stress at the termination fittings.

Wiring Methods	Reference	Class I, Division 1 Requirements
Type ITC-HL cable	Article 335 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type ITC-HL cable with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material. (3) The cable shall be terminated with fittings listed for the cable and application.
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.
Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location. (4) This wiring method shall be permitted for use in a ladder, ventilated trough, or ventilated channel cable tray when installed in accordance with Article 392 Part II.
IMC (including IMC with supplemental corrosion protection coatings)	Article 342 Part II	(1) The conduit connections shall be threaded.

Wiring Methods	Reference	Class I, Division 1 Requirements
RMC (including RMC with supplemental corrosion protection coatings)	Article 344 Part II	
PVC conduit	Article 352 Part II	(1) The conduit shall be encased in a concrete envelope a minimum of 50 mm (2 in.) thick and provided with not less than 600 mm (24 in.) of cover measured from the top of the conduit to grade. (2) The concrete encasement shall be permitted to be omitted where it is in accordance with 514.8(C) or 515.8(A). (3) RMC or IMC conduit shall be used for the last 600 mm (24 in.) of the underground run to emergence or to the point of connection to the aboveground raceway. (4) An equipment grounding conductor shall be included to provide for electrical continuity of the raceway system and for grounding of non-current-carrying metal parts.

Informational Note No. 1: See Article 100 for the definition of *restricted industrial establishment [as applied to hazardous (classified) locations]*.

Informational Note No .2: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 3: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.

~~Informational Note No. 4: See 500.8(C)(5) for the ambient temperature range requirements.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-45, and if no previous edition text exists, the text supported by the membership vote is simply deleted.

No Previous Edition Text. Informational Note No. 4 did not exist in 501.10(A)(1) in the 2023 edition of NFPA 70.

NFPA 70, *National Electrical Code®*

Submitter: Thomas Dunne, IBEW

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 7686

CAM No. 70-46

Recommended Text if Motion Passes:

(A)(2) Flexible Connections.
If flexibility is necessary to minimize the transmission of vibration from equipment during operation, to allow for movement after installation, or to allow for movement during maintenance, one or more of the wiring methods of Table 501.10(A)(2) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(2) Wiring Methods With Flexible Connections for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.
Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location.
Flexible cord	Table 400.4	(1) The cord shall comply with the requirements of 501.140(B).
Flexible metal fittings		(1) Flexible metal fittings shall be listed for the location.

Informational Note No. 1: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 2: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.

~~Informational Note No. 3: See 500.8(C)(5) for the ambient temperature range requirements.~~

Recommended Text if Motion Fails:

(A)(2) Flexible Connections.
If flexibility is necessary to minimize the transmission of vibration from equipment during operation, to allow for movement after installation, or to allow for movement during maintenance, one or more of the wiring methods of Table 501.10(A)(2) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(2) Wiring Methods With Flexible Connections for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.
Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location.
Flexible cord	Table 400.4	(1) The cord shall comply with the requirements of 501.140(B).
Flexible metal fittings		(1) Flexible metal fittings shall be listed for the location.

Informational Note No. 1: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 2: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.

Informational Note No. 3: See 500.8(C)(5) for the ambient temperature range requirements.

AMENDMENT BALLOT No. 70-46

Code Making Panel 14

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-46 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

(A)(2) Flexible Connections.

If flexibility is necessary to minimize the transmission of vibration from equipment during operation, to allow for movement after installation, or to allow for movement during maintenance, one or more of the wiring methods of Table 501.10(A)(2) shall be used in accordance with the requirements of the sections in the Reference column and with the respective wiring method requirements applied.

Table 501.10(A)(2) Wiring Methods With Flexible Connections for Use in Class I, Division 1 Locations

Wiring Methods	Reference	Class I, Division 1 Requirements
Type TC-ER-HL cable	Article 336 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type TC-ER-HL cable. (3) The cable shall be terminated with fittings listed for the cable and location. (4) The cable shall not be subject to physical damage. (5) This wiring method shall be limited to 600 volts nominal or less.
Type P cable	Article 337 Part II	(1) This wiring method shall be permitted for use in restricted industrial establishments. (2) The cable shall be listed Type P cable with a metal braid armor and an overall jacket. (3) The cable shall be terminated with fittings listed for the cable and location.
Flexible cord	Table 400.4	(1) The cord shall comply with the requirements of 501.140(B).
Flexible metal fittings		(1) Flexible metal fittings shall be listed for the location.

Informational Note No. 1: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of -HL cables and all cable fittings.

Informational Note No. 2: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable fittings.

~~Informational Note No. 3: See 500.8(C)(5) for the ambient temperature range requirements.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-46, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No Previous Edition Text. Informational Note No. 3 did not exist in 501.10(A)(2) in the 2023 edition of NFPA 70.

NFPA 70, *National Electrical Code®*

Submitter: Ryan Jackson, Self Employed

Certified Amending Motion to Reject Second Revision No. 8079

CAM No. 70-48

Recommended Text if Motion Passes:

440.14 Location.
Disconnecting means shall be located within sight from, and readily accessible from, the air-conditioning or refrigerating equipment. The disconnecting means shall be permitted to be installed on or within the air-conditioning or refrigerating equipment. Disconnecting means shall meet the working space requirements of 110.26(A).

The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or where it obscures the equipment nameplate(s).

Exception No. 1: Where the disconnecting means provided in accordance with 430.102(A) is lockable open in accordance with 110.25 and the refrigerating or air-conditioning equipment is essential to an industrial process in a facility with written safety procedures, and where the conditions of maintenance and supervision ensure that only qualified persons service the equipment, a disconnecting means within sight from the equipment shall not be required.

Exception No. 2: Where an attachment plug and receptacle serve as the disconnecting means in accordance with 440.13, their location shall be accessible but shall not be required to be readily accessible.

~~*Exception No. 3: Residential non-fused single-phase disconnecting means rated 250 volt or less and not exceeding 60 amperes shall be in sight from the equipment and accessible.*~~

Informational Note: See Article 430, Parts VII and IX for additional requirements.

Recommended Text if Motion Fails:

440.14 Location.
Disconnecting means shall be located within sight from, and readily accessible from, the air-conditioning or refrigerating equipment. The disconnecting means shall be permitted to be installed on or within the air-conditioning or refrigerating equipment. Disconnecting means shall meet the working space requirements of 110.26(A).
The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or where it obscures the equipment nameplate(s).

Exception No. 1: Where the disconnecting means provided in accordance with 430.102(A) is lockable open in accordance with 110.25 and the refrigerating or air-conditioning equipment is essential to an industrial process in a facility with written safety procedures, and where the conditions of maintenance and supervision ensure that only qualified persons service the equipment, a disconnecting means within sight from the equipment shall not be required.

Exception No. 2: Where an attachment plug and receptacle serve as the disconnecting means in accordance with 440.13, their location shall be accessible but shall not be required to be readily accessible.

Exception No. 3: Residential non-fused single-phase disconnecting means rated 250 volt or less and not exceeding 60 amperes shall be in sight from the equipment and accessible.

Informational Note: See Article 430, Parts VII and IX for additional requirements.

AMENDMENT BALLOT No. 70-48

Code Making Panel 11

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-48 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

440.14 Location.

Disconnecting means shall be located within sight from, and readily accessible from, the air-conditioning or refrigerating equipment. The disconnecting means shall be permitted to be installed on or within the air-conditioning or refrigerating equipment. Disconnecting means shall meet the working space requirements of 110.26(A).

The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or where it obscures the equipment nameplate(s).

Exception No. 1: Where the disconnecting means provided in accordance with 430.102(A) is lockable open in accordance with 110.25 and the refrigerating or air-conditioning equipment is essential to an industrial process in a facility with written safety procedures, and where the conditions of maintenance and supervision ensure that only qualified persons service the equipment, a disconnecting means within sight from the equipment shall not be required.

Exception No. 2: Where an attachment plug and receptacle serve as the disconnecting means in accordance with 440.13, their location shall be accessible but shall not be required to be readily accessible.

~~*Exception No. 3: Residential non-fused single-phase disconnecting means rated 250 volt or less and not exceeding 60 amperes shall be in sight from the equipment and accessible.*~~

Informational Note: See Article 430, Parts VII and IX for additional requirements.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-48 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

440.14 Location.

Disconnecting means shall be located within sight from, and readily accessible from, the air-conditioning or refrigerating equipment. The disconnecting means shall be permitted to be installed on or within the air-conditioning or refrigerating equipment. Disconnecting means shall meet the working space requirements of 110.26(A).

The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or where it obscures the equipment nameplate(s).

Exception No. 1: Where the disconnecting means provided in accordance with 430.102(A) is lockable in accordance with 110.25 and the refrigerating or air-conditioning equipment is essential to an industrial process in a facility with written safety procedures, and where the conditions of maintenance and supervision ensure that only qualified persons service the equipment, a disconnecting means within sight from the equipment shall not be required.

Exception No. 2: Where an attachment plug and receptacle serve as the disconnecting means in accordance with 440.13, their location shall be accessible but shall not be required to be readily accessible.

Informational Note: See Parts VII and IX of Article 430 for additional requirements.

NFPA 70, *National Electrical Code®*

Submitter: Rodney McGee, University of Deleware

Certified Amending Motion to Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions	
CAM No. 70-58	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter ~~(GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI)~~ Protection for Personnel.** **~~(A) Cord- and Plug-Connected.~~** **~~(1) 150 Volts or Less to Ground.~~** All receptacles ~~rated 150 volts or less to ground,~~ installed for the connection of electric vehicle charging shall have ~~GFCI~~ ground-fault circuit-interrupter protection for personnel ~~protection~~. **~~(2) Greater than 150 Volts to Ground.~~** ~~All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.~~ **~~(B) Permanently Wired.~~** **~~(1) 150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2) Greater than 150 Volts to Ground.~~** ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.**

	All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

NFPA 70, *National Electrical Code®*

Submitter: Mark Hilbert, MR Hilbert Electrical Inspections & Training

Certified Amending Motion to Reject Second Revision No. 7626 and any Related First Revisions and First Correlating Revisions

CAM No. 70-61

Recommended Text if Motion Passes:

110.22 Identification of Disconnecting Means.

(A) General.

Each disconnecting means ~~in other than one- or two-family dwellings~~ shall be legibly marked to indicate its purpose ~~and circuit source~~ unless located and arranged so the purpose ~~and source~~ is evident. ~~The marking shall comply with110.21(B).~~ In other than one- or two-family dwellings, the marking shall include the identification and location of the circuit source that supplies the disconnecting means unless located and arranged so the identification and location of the circuit source is evident. The marking shall be of sufficient durability to withstand the environment involved.

(B) Engineered Series Combination Systems.

Equipment enclosures for circuit breakers or fuses applied in compliance with series combination ratings selected under engineering supervision in accordance with 240.86(A) shall be legibly marked in the field as directed by the engineer to indicate the equipment has been applied with a series combination rating. The marking shall ~~comply with~~ meet the requirements in 110.21(B) and shall be readily visible and state the following:

CAUTION — ENGINEERED SERIES COMBINATION SYSTEM RATED _____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.

(C) Tested Series Combination Systems.

Equipment enclosures for circuit breakers or fuses applied in compliance with the series combination ratings marked on the equipment by the manufacturer in accordance with 240.86(B) shall be legibly marked in the field to indicate the equipment has been applied with a series combination rating. The marking shall ~~comply with~~ meet the requirements in 110.21(B) and shall be readily visible and state the following:

CAUTION — SERIES COMBINATION SYSTEM RATED ____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED.

Informational Note: See IEEE 3004.5-2014 *Recommended Practice for the Application of Low-Voltage Circuit Breakers in Industrial and Commercial Power Systems*, for further information on series tested systems.

Recommended Text if Motion Fails:

110.22 Identification of Disconnecting Means.

(A) General.

Each disconnecting means in other than one- or two-family dwellings shall be legibly marked to indicate its purpose and circuit source unless located and arranged so the purpose and source is evident. The marking shall comply with110.21(B).

(B) Engineered Series Combination Systems.

Equipment enclosures for circuit breakers or fuses applied in compliance with series combination ratings selected under engineering supervision in accordance with 240.86(A) shall be legibly marked in the field as directed by the engineer to indicate the equipment has been applied with a series combination rating. The marking shall comply with110.21(B) and shall be readily visible and state the following:

	CAUTION — ENGINEERED SERIES COMBINATION SYSTEM RATED _____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED. **(C) Tested Series Combination Systems.** Equipment enclosures for circuit breakers or fuses applied in compliance with the series combination ratings marked on the equipment by the manufacturer in accordance with 240.86(B) shall be legibly marked in the field to indicate the equipment has been applied with a series combination rating. The marking shall comply with110.21(B) and shall be readily visible and state the following: CAUTION — SERIES COMBINATION SYSTEM RATED ____ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED. Informational Note: See IEEE 3004.5-2014 *Recommended Practice for the Application of Low-Voltage Circuit Breakers in Industrial and Commercial Power Systems*, for further information on series tested systems.

NFPA 70, *National Electrical Code®*

Submitter: Indra Wiryadinata, Tesla, Inc.

Certified Amending Motion to Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions

CAM No. 70-77

Recommended Text if Motion Passes:

625.54 Ground-Fault Circuit-Interrupter ~~(GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI)~~ Protection for Personnel.

~~(A) Cord- and Plug-Connected.~~

~~(1) 150 Volts or Less to Ground.~~

All receptacles ~~rated 150 volts or less to ground,~~ installed for the connection of electric vehicle charging shall have ~~GFCI~~ ground-fault circuit-interrupter protection for personnel ~~protection~~.

~~(2) Greater than 150 Volts to Ground.~~

~~All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.~~

~~(B) Permanently Wired.~~

~~(1) 150 Volts or Less to Ground.~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~(2) Greater than 150 Volts to Ground.~~

~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~

~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~

~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~

Recommended Text if Motion Fails:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

(B) Permanently Wired.

(1) 150 Volts or Less to Ground.

	All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

NFPA 70, *National Electrical Code®*

Submitter: Daniel Buuck, National Association of Home Builders

Certified Amending Motion to Accept Public Comment No. 1938	
CAM No. 70-79	**Recommended Text if Motion Passes:** **215.18(A) Surge-Protective Device.** If feeders supply any of the following, surge-protective devices (SPDs) shall be installed: (1) Dwelling units <u>of a multifamily building</u> (2) Dormitories (3) Guest rooms and guest suites of hotels, motels, and dormitories (4) Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms (5) Areas designed for use exclusively as sleeping quarters in fire stations, police stations, ambulance stations, rescue stations, ranger stations, and similar locations
	Recommended Text if Motion Fails: **215.18(A) Surge-Protective Device.** If feeders supply any of the following, surge-protective devices (SPDs) shall be installed: (1) Dwelling units (2) Dormitories (3) Guest rooms and guest suites of hotels, motels, and dormitories (4) Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms (5) Areas designed for use exclusively as sleeping quarters in fire stations, police stations, ambulance stations, rescue stations, ranger stations, and similar locations

AMENDMENT BALLOT No. 70-79

Code Making Panel 10

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-79 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

215.18(A) Surge-Protective Device.

If feeders supply any of the following, surge-protective devices (SPDs) shall be installed:

(1) Dwelling units <u>of a multifamily building</u>

(2) Dormitories

(3) Guest rooms and guest suites of hotels, motels, and dormitories

(4) Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms

(5) Areas designed for use exclusively as sleeping quarters in fire stations, police stations, ambulance stations, rescue stations, ranger stations, and similar locations

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IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-79 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

215.18(A) Surge-Protective Device.

Where a feeder supplies any of the following, a surge-protective device (SPD) shall be installed:

(1) Dwelling units

(2) Dormitory units

(3) Guest rooms and guest suites of hotels and motels

(4) Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms

NFPA 70, *National Electrical Code®*

Submitter: Ryan Jackson, Self Employed

Certified Amending Motion to Reject Second Revision No. 8104 and any Related Portions of First Revisions and First Correlating Revisions

CAM No. 70-82

Recommended Text if Motion Passes:

625.44 (A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts ~~or 250 volts,~~ single phase, 15 or 20 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30 or 50 amperes listed for EVSE and WPTE use~~

(2) A nonlocking, 2-pole ~~3-pole~~, 3-wire ~~4-wire~~ grounding-type receptacle outlet rated at ~~125/~~250 volts, single phase, 15 or 20 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed for EVSE and WPTE use~~

(3) A nonlocking, 2-pole, 3-wire or 3-pole, 4-wire grounding-type receptacle outlet rated at ~~277~~ 250 volts, single phase, 30 or 50 amperes, or 125/250 volts, single-phase, 30, 50, or 60 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30 or 50 amperes listed for EVSE and WPTE use~~

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

~~(5) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.~~

625.44 (B) ~~Hand~~ Fastened-in-Place Equipment.

Equipment that is ~~hand~~ fastened-in-place shall be connected to the premises wiring system by one of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase, up to 50 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30 or 50 amperes listed for EVSE and WPTE use~~

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase, up to 50 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed for EVSE and WPTE use~~

(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase, 30, 50, or 60 amperes ~~in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed for EVSE and WPTE use~~

~~(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 277 volts, single phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed for EVSE and WPTE use~~

~~(5) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 120/208 volts, three phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed for EVSE and WPTE use~~

(4) ~~(6)~~ A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

~~(7) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.~~

Recommended Text if Motion Fails:

625.44(A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts or 250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 125/250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 277 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

(5) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.

625.44(B) Hand Fastened Equipment.

Equipment that is hand fastened shall be connected to the premises wiring system by one of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase in accordance with one of the following:

1. 15 or 20 amperes
2. 30 or 50 amperes listed for EVSE and WPTE use

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase in accordance with one of the following:

1. 15 or 20 amperes
2. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase in accordance with one of the following:

1. 15 or 20 amperes
2. 30, 50, or 60 amperes listed for EVSE and WPTE use

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 277 volts, single phase in accordance with one of the following:

1. 15 or 20 amperes
2. 30, 50, or 60 amperes listed for EVSE and WPTE use

(5) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 120/208 volts, three phase in accordance with one of the following:

1. 15 or 20 amperes
2. 30, 50, or 60 amperes listed for EVSE and WPTE use

(6) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

(7) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.

NFPA 70, *National Electrical Code®*

Submitter: Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association

Certified Amending Motion to Accept Committee Comment No. 7738	
CAM No. 70-83	**Recommended Text if Motion Passes:** **210.12(B) Dwelling Units.** All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A): (1) Kitchens (2) Family rooms (3) Dining rooms (4) Living rooms (5) Parlors (6) Libraries (7) Dens (8) Bedrooms (9) Sunrooms (10) Recreation rooms (11) Closets (12) Hallways (13) Laundry areas (14) Bathroom lighting outlets (15) Similar areas *Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.* *Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.* Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units. Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.
	Recommended Text if Motion Fails: **210.12 (B) Dwelling Units.** All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A): (1) Kitchens

(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

AMENDMENT BALLOT No. 70-83

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-83 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.12(B) Dwelling Units.
All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Bathroom lighting outlets
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-83 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.12(B) Dwelling Units.
All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

1. Kitchens
2. Family rooms
3. Dining rooms
4. Living rooms
5. Parlors
6. Libraries
7. Dens
8. Bedrooms
9. Sunrooms
10. Recreation rooms
11. Closets
12. Hallways
13. Laundry areas
14. Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit until January 1, 2025.

Informational Note No. 1: See *NFPA 72*-2022, *National Fire Alarm and Signaling Code*, 29.9.4(5), for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

NFPA 70, *National Electrical Code®*

Submitter: Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association

Certified Amending Motion to Committee Comment No. 7743	
CAM No. 70-84	**Recommended Text if Motion Passes:** **210.12(B) Dwelling Units.** All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A): (1) Kitchens (2) Family rooms (3) Dining rooms (4) Living rooms (5) Parlors (6) Libraries (7) Dens (8) Bedrooms (9) Sunrooms (10) Recreation rooms (11) Closets (12) Hallways (13) Laundry areas (14) Attics (15) Similar areas *Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.* *Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.* Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units. Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.
	Recommended Text if Motion Fails: **210.12 (B) Dwelling Units.** All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A): (1) Kitchens (2) Family rooms (3) Dining rooms

(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

AMENDMENT BALLOT No. 70-84

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-84 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.12(B) Dwelling Units.
All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Attics
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-84 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.12(B) Dwelling Units.
All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit until January 1, 2025.

Informational Note No. 1: See *NFPA 72*-2022, *National Fire Alarm and Signaling Code*, 29.9.4(5), for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

NFPA 70, *National Electrical Code®*

Submitter: Randy Dollar, Siemens Industry and the American Circuit Breaker Manufacturers Association

Certified Amending Motion to Reject Second Revision No. 7617	
CAM No. 70-85	**Recommended Text if Motion Passes:** **210.8(D) ~~Branch Circuits Supplying~~ Specific Appliances.** GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single-phase or 100 amperes or less, 3-phase: ~~identified in 422.5.~~ (1) Automotive vacuum machines (2) Drinking water coolers and bottle fill stations (3) High-pressure spray washing machines (4) Tire inflation machines (5) Vending machines (6) Sump pumps (7) Dishwashers (8) Electric ranges (9) Wall-mounted ovens (10) Counter-mounted cooking units (11) Clothes dryers (12) Microwave ovens
	Recommended Text if Motion Fails: **210.8(D) Branch-Circuits Supplying Specific Appliances.** GFCI protection shall be provided for the branch circuit or outlet supplying the appliances identified in 422.5.

AMENDMENT BALLOT No. 70-85

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-85 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.8(D) ~~Branch Circuits Supplying~~ Specific Appliances.

GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single-phase or 100 amperes or less, 3-phase: ~~identified in 422.5.~~

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) High-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

(6) Sump pumps

(7) Dishwashers

(8) Electric ranges

(9) Wall-mounted ovens

(10) Counter-mounted cooking units

(11) Clothes dryers

(12) Microwave ovens

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-85 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.8 (D) Specific Appliances.

GFCI protection shall be provided for the branch circuit or outlet supplying the following appliances rated 150 volts or less to ground and 60 amperes or less, single- or 3-phase:

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) High-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

(6) Sump pumps

(7) Dishwashers

(8) Electric ranges

(9) Wall-mounted ovens

(10) Counter-mounted cooking units

(11) Clothes dryers

(12) Microwave ovens

NFPA 70, *National Electrical Code®*

Submitter: Keith Waters, Schneider Electric

Certified Amending Motion to Accept Public Comment No. 1854	
CAM No. 70-87	**Recommended Text if Motion Passes:** **120.13 Dwelling Units – Branch-Circuit Loads.** In dwelling units, the minimum unit load shall be not less than ~~33~~ 43 volt-amperes/m^2 (~~3~~ 4 volt-amperes/ft^2) for calculating minimum branch circuits required.
	Recommended Text if Motion Fails: **120.13 Dwelling Units – Branch-Circuit Loads.** In dwelling units, the minimum unit load shall be not less than 33 volt-amperes/m^2 (3 volt-amperes/ft^2) for calculating minimum branch circuits required.

AMENDMENT BALLOT No. 70-87

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-87 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

120.13 Dwelling Units – Branch-Circuit Loads.

In dwelling units, the minimum unit load shall be not less than ~~33~~ 43 volt-amperes/m^2 (~~3~~ 4 volt-amperes/ft^2) for calculating minimum branch circuits required.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-87, and if no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text.

NFPA 70, *National Electrical Code®*

Submitter: Keith Waters, Schneider Electric

Certified Amending Motion to Committee Comment No. 7743

CAM No. 70-88

Recommended Text if Motion Passes:

210.12(B) Dwelling Units.

All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Attics
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

Recommended Text if Motion Fails:

210.12 (B) Dwelling Units.

All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms

(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

AMENDMENT BALLOT No. 70-88

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-88 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.12(B) Dwelling Units.
All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Attics
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-88 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.12(B) Dwelling Units.
All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit until January 1, 2025.

Informational Note No. 1: See *NFPA 72*-2022, *National Fire Alarm and Signaling Code*, 29.9.4(5), for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

NFPA 70, *National Electrical Code®*

Submitter: Keith Waters, Schneider Electric

Certified Amending Motion to Accept Committee Comment No. 7738

CAM No. 70-89

Recommended Text if Motion Passes:

210.12(B) Dwelling Units.

All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Bathroom lighting outlets
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

Recommended Text if Motion Fails:

210.12 (B) Dwelling Units.

All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms

(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

AMENDMENT BALLOT No. 70-89

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-89 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.12(B) Dwelling Units.
All 120-volt, nominal, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A):

(1) Kitchens
(2) Family rooms
(3) Dining rooms
(4) Living rooms
(5) Parlors
(6) Libraries
(7) Dens
(8) Bedrooms
(9) Sunrooms
(10) Recreation rooms
(11) Closets
(12) Hallways
(13) Laundry areas
(14) Bathroom lighting outlets
(15) Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable complying with 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit, its garages, and its accessory buildings.

Informational Note No. 1: See *NFPA 72*, *National Fire Alarm and Signaling Code*, 29.9.4(5) for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-89 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.12(B) Dwelling Units.
All 120-volt, single-phase, 10-, 15-, and 20-ampere branch circuits supplying outlets or devices installed in the following locations shall be protected by any of the means described in 210.12(A)(1) through (A)(6):

1. Kitchens
2. Family rooms
3. Dining rooms
4. Living rooms
5. Parlors
6. Libraries
7. Dens
8. Bedrooms
9. Sunrooms
10. Recreation rooms
11. Closets
12. Hallways
13. Laundry areas
14. Similar areas

Exception No. 1: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, or Type MC or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Exception No. 2: AFCI protection shall not be required for the individual branch circuit supplying an outlet for arc welding equipment in a dwelling unit until January 1, 2025.

Informational Note No. 1: See *NFPA 72*-2022, *National Fire Alarm and Signaling Code*, 29.9.4(5), for information on secondary power source requirements for smoke alarms installed in dwelling units.

Informational Note No. 2: See 760.41(B) and 760.121(B) for power source requirements for fire alarm systems.

NFPA 70, *National Electrical Code®*

Submitter: Richard Holub, The Dupont Company

Certified Amending Motion to Reject Second Revision No. 7636	
CAM No. 70-91	**Recommended Text if Motion Passes:** **110.26 Spaces About Electrical Equipment.** Working space, and access to and egress from working space, shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment. Open equipment doors shall not impede access to and egress from the working space. Access or egress is impeded if one or more simultaneously opened equipment doors restrict working space access to be less than 610 mm (24 in.) wide and 2.0 m (6 ½ ft) high ~~when such doors are or can be opened 90 degrees~~.
	Recommended Text if Motion Fails: **110.26 Spaces About Electrical Equipment.** Working space, and access to and egress from working space, shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment. Open equipment doors shall not impede access to and egress from the working space. Access or egress is impeded if one or more simultaneously opened equipment doors restrict working space access to be less than 610 mm (24 in.) wide and 2.0 m (6 ½ ft) high when such doors are or can be opened 90 degrees.

NFPA 70, *National Electrical Code®*

Submitter: Keith Waters, Schneider Electric

Certified Amending Motion to Accept Public Comment No. 1853

CAM No. 70-93

Recommended Text if Motion Passes:

422.5(B) Appliances.

The following appliances shall be GFCI protected:

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) High-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

(6) Sump pumps

(7) Dishwashers

(8) Electric Ranges

(9) Wall-mounted ovens

(10) Counter-mounted cooking units

(11) Clothes dryers

(12) Microwave Ovens

Informational Note No. 1: See 210.8 for GFCI protection requirements for branch-circuit outlets where covered locations warrant such protection.

Informational Note No. 2: Electrically cooled drinking water fountains are one type of drinking water cooler.

***Note:** "High-pressure" replaced "Cord- and plug-connected" as part of Second Revision No. 8508 for subsection (3) above. The submitter does not wish to amend that detail addition to Section 422.5(B)*

Recommended Text if Motion Fails:

422.5(B) Appliances.

The following appliances shall be GFCI protected:

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) High-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

	(6) Sump pumps (7) Dishwashers Informational Note No. 1: See 210.8 for GFCI protection requirements for branch-circuit outlets where covered locations warrant such protection. Informational Note No. 2: Electrically cooled drinking water fountains are one type of drinking water cooler.

AMENDMENT BALLOT No. 70-93

Code Making Panel 17

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-93 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

422.5(B) Appliances.

The following appliances shall be GFCI protected:

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) High-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

(6) Sump pumps

(7) Dishwashers

(8) Electric Ranges

(9) Wall-mounted ovens

(10) Counter-mounted cooking units

(11) Clothes dryers

(12) Microwave Ovens

Informational Note No. 1: See 210.8 for GFCI protection requirements for branch-circuit outlets where covered locations warrant such protection.

Informational Note No. 2: Electrically cooled drinking water fountains are one type of drinking water cooler.

***Note:** "High-pressure" replaced "Cord- and plug-connected" as part of Second Revision No. 8508 for subsection (3) above. The submitter does not wish to amend that detail addition to Section 422.5(B)*

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-93 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

422.5 GFCI Protection.

(A) General.

Appliances identified in 422.5(A)(1) through (A)(7) 150 volts or less to ground and 60 amperes or less, single- or 3-phase, shall be provided with Class A protection for personnel. Multiple Class A protective devices shall be permitted but shall not be required.

(1) Automotive vacuum machines

(2) Drinking water coolers and bottle fill stations

(3) Cord-and-plug-connected high-pressure spray washing machines

(4) Tire inflation machines

(5) Vending machines

(6) Sump pumps

(7) Dishwashers

Informational Note: Section 210.8 specifies requirements for GFCI protection for the branch-circuit outlet where the covered location warrants such protection.

(B) Type and Location.

The GFCI shall be readily accessible, listed, and located in one or more of the following locations:

(1) Within the branch-circuit overcurrent device

(2) A device or outlet within the supply circuit

(3) An integral part of the attachment plug

(4) Within the supply cord not more than 300 mm (12 in.) from the attachment plug

(5) Factory installed within the appliance

NFPA 70, *National Electrical Code®*

Submitter: Christel Hunter, Cerro Wire

Certified Amending Motion to Reject Second Revision No. 8481

CAM No. 70-105

Recommended Text if Motion Passes:

310.16 Ampacities of Insulated Conductors in Raceway, Cable, or Earth (Directly Buried).
The ampacities shall be as specified in Table 310.16 where all of the following conditions apply:

1. Conductors are rated 0 volts through 2000 volts.
2. Conductors are rated 60°C (140°F), 75°C (167°F), or 90°C (194°F).
3. Wiring is installed in a 30°C (86°F) ambient temperature.
4. There are not more than three current-carrying conductors.

Table 310.16 Ampacities of Insulated Conductors with Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried)

Size AWG or kcmil	Temperature Rating of Conductor [See Table 310.4(1)]						Size AWG or kcmil
	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, PFA, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN, Z, ZW-2	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE	Types TBS, SA, SIS, THHN, THHW, THW-2, THWN-2, RHH, RHW-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN	
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM			
—	—	—	—	—	—	—	—
~~16~~[*,1]	10	~~15~~[2]	18~~20~~[2]	—	—	—	—
~~14~~[*,1]	15	20	25	~~10~~[†,3]	~~15~~[2,3]	~~20~~[2,3]	~~14~~[†,1]
~~12~~[*,1]	20	25	30	15	20	25	~~12~~[*,1]
~~10~~[*,1]	30	35	40	25	30	35	~~10~~[*,1]
8	40	50	55	35	40	45	8
6	55	65	75	40	50	55	6
4	70	85	95	55	65	75	4
3	85	100	115	65	75	85	3
2	95	115	130	75	90	100	2
1	110	130	145	85	100	115	1
1/0	125	150	170	100	120	135	1/0
2/0	145	175	195	115	135	150	2/0
3/0	165	200	225	130	155	175	3/0

4/0	195	230	260	150	180	205	4/0
250	215	255	290	170	205	230	250
300	240	285	320	195	230	260	300
350	260	310	350	210	250	280	350
400	280	335	380	225	270	305	400
500	320	380	430	260	310	350	500
600	350	420	475	285	340	385	600
700	385	460	520	315	375	425	700
750	400	475	535	320	385	435	750
800	410	490	555	330	395	445	800
900	435	520	585	355	425	480	900
1000	455	545	615	375	445	500	1000
1250	495	590	665	405	485	545	1250
1500	525	625	705	435	520	585	1500
1750	545	650	735	455	545	615	1750
2000	555	665	750	470	560	630	2000

Notes:
1. Section 310.15(B) shall be referenced for ampacity correction factors where the ambient temperature is other than 30°C (86°F).
2. Section 310.15(C)(1) shall be referenced for more than three current-carrying conductors.
3. Section 310.16 shall be referenced for conditions of use.
4. Ampacity for 18 AWG copper Type MI and Type MTW shall be 14 amperes at 90°C (194°F).
5. Ampacity for 16 AWG copper Type MI and Type MTW shall be 18 amperes at 90°C (194°F).

~~*~~1Section 240.4(D) shall be referenced for conductor overcurrent protection limitations, except as modified elsewhere in the code.
~~†~~2Ampacity shall be applicable only to copper-clad aluminum conductors.

~~3 Ampacity shall be used for adjustment or correction only.~~

Recommended Text if Motion Fails:

310.16 Ampacities of Insulated Conductors in Raceway, Cable, or Earth (Directly Buried).

The ampacities shall be as specified in Table 310.16 where all of the following conditions apply:

(1) Conductors are rated 0 volts through 2000 volts.

(2) Conductors are rated 60°C (140°F), 75°C (167°F), or 90°C (194°F).

(3) Wiring is installed in a 30°C (86°F) ambient temperature.

(4) There are not more than three current-carrying conductors.

Table 310.16 Ampacities of Insulated Conductors with Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried)

Size AWG or kcmil	Temperature Rating of Conductor [See Table 310.4(1)]						Size AWG or kcmil
	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, PFA, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN, Z, ZW-2	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE	Types TBS, SA, SIS, THHN, THHW, THW-2, THWN-2, RHH, RHW-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN	
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM			
16[1]	10	15[2]	20[2]	—	—	—	—
14[1]	15	20	25	10[3]	15[2,3]	20[2,3]	14[1]
12[1]	20	25	30	15	20	25	12[1]
10[1]	30	35	40	25	30	35	10[1]
8	40	50	55	35	40	45	8
6	55	65	75	40	50	55	6
4	70	85	95	55	65	75	4
3	85	100	115	65	75	85	3
2	95	115	130	75	90	100	2
1	110	130	145	85	100	115	1
1/0	125	150	170	100	120	135	1/0
2/0	145	175	195	115	135	150	2/0
3/0	165	200	225	130	155	175	3/0
4/0	195	230	260	150	180	205	4/0
250	215	255	290	170	205	230	250
300	240	285	320	195	230	260	300
350	260	310	350	210	250	280	350
400	280	335	380	225	270	305	400
500	320	380	430	260	310	350	500

600	350	420	475	285	340	385	600
700	385	460	520	315	375	425	700
750	400	475	535	320	385	435	750
800	410	490	555	330	395	445	800
900	435	520	585	355	425	480	900
1000	455	545	615	375	445	500	1000
1250	495	590	665	405	485	545	1250
1500	525	625	705	435	520	585	1500
1750	545	650	735	455	545	615	1750
2000	555	665	750	470	560	630	2000

Notes:

1. Section 310.15(B) shall be referenced for ampacity correction factors where the ambient temperature is other than 30°C (86°F).
2. Section 310.15(C)(1) shall be referenced for more than three current-carrying conductors.
3. Section 310.16 shall be referenced for conditions of use.
4. Ampacity for 18 AWG copper Type MI and Type MTW shall be 14 amperes at 90°C (194°F).
5. Ampacity for 16 AWG copper Type MI and Type MTW shall be 18 amperes at 90°C (194°F).

[1]Section 240.4(D) shall be referenced for conductor overcurrent protection limitations, except as modified elsewhere in the code.

[2]Ampacity shall be used for adjustment or correction only.

[3]Ampacity shall be applicable only to copper-clad aluminum conductors.

AMENDMENT BALLOT No. 70-105

Code Making Panel 6

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-105 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

310.16 Ampacities of Insulated Conductors in Raceway, Cable, or Earth (Directly Buried).

The ampacities shall be as specified in Table 310.16 where all of the following conditions apply:

1. Conductors are rated 0 volts through 2000 volts.
2. Conductors are rated 60°C (140°F), 75°C (167°F), or 90°C (194°F).
3. Wiring is installed in a 30°C (86°F) ambient temperature.
4. There are not more than three current-carrying conductors.

Table 310.16 Ampacities of Insulated Conductors with Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried)

Size AWG or kcmil	Temperature Rating of Conductor [See Table 310.4(1)]						Size AWG or kcmil
	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, PFA, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN, Z, ZW-2	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE	Types TBS, SA, SIS, THHN, THHW, THW-2, THWN-2, RHH, RHW-2, USE-2, XHH, XHHW, XHHW-2, XHWN-2, XHHN	
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM			
—	—	—	—	—	—	—	—
16[*1]	10	~~15~~[2]	18~~20~~[2]	—	—	—	—
14[*1]	15	20	25	10[†3]	~~15~~[2,3]	~~20~~[2,3]	14[†1]
12[*1]	20	25	30	15	20	25	12[*1]
10[1]	30	35	40	25	30	35	10[*1]
8	40	50	55	35	40	45	8
6	55	65	75	40	50	55	6
4	70	85	95	55	65	75	4
3	85	100	115	65	75	85	3
2	95	115	130	75	90	100	2
1	110	130	145	85	100	115	1
1/0	125	150	170	100	120	135	1/0
2/0	145	175	195	115	135	150	2/0

3/0	165	200	225	130	155	175	3/0
4/0	195	230	260	150	180	205	4/0
250	215	255	290	170	205	230	250
300	240	285	320	195	230	260	300
350	260	310	350	210	250	280	350
400	280	335	380	225	270	305	400
500	320	380	430	260	310	350	500
600	350	420	475	285	340	385	600
700	385	460	520	315	375	425	700
750	400	475	535	320	385	435	750
800	410	490	555	330	395	445	800
900	435	520	585	355	425	480	900
1000	455	545	615	375	445	500	1000
1250	495	590	665	405	485	545	1250
1500	525	625	705	435	520	585	1500
1750	545	650	735	455	545	615	1750
2000	555	665	750	470	560	630	2000

Notes:
1. Section 310.15(B) shall be referenced for ampacity correction factors where the ambient temperature is other than 30°C (86°F).
2. Section 310.15(C)(1) shall be referenced for more than three current-carrying conductors.
3. Section 310.16 shall be referenced for conditions of use.
4. Ampacity for 18 AWG copper Type MI and Type MTW shall be 14 amperes at 90°C (194°F).
5. Ampacity for 16 AWG copper Type MI and Type MTW shall be 18 amperes at 90°C (194°F).

~~*1~~Section 240.4(D) shall be referenced for conductor overcurrent protection limitations, except as modified elsewhere in the code.
~~†2~~Ampacity shall be applicable only to copper-clad aluminum conductors.
~~3 Ampacity shall be used for adjustment or correction only.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-105 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

310.16 Ampacities of Insulated Conductors in Raceway, Cable, or Earth (Directly Buried).

The ampacities shall be as specified in Table 310.16 where all of the following conditions apply:

1. Conductors are rated 0 volts through 2000 volts.
2. Conductors are rated 60°C (140°F), 75°C (167°F), or 90°C (194°F).
3. Wiring is installed in a 30°C (86°F) ambient temperature.
4. There are not more than three current-carrying conductors.

Table 310.16 Ampacities of Insulated Conductors with Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried)

Size AWG or kcmil	Temperature Rating of Conductor [See Table 310.4(1)]						Size AWG or kcmil
	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	
	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE, ZW	Types TBS, SA, SIS, FEP, FEPB, MI, PFA, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, XHWN, XHWN-2, XHHN, Z, ZW-2	Types TW, UF	Types RHW, THHW, THW, THWN, XHHW, XHWN, USE	Types TBS, SA, SIS, THHN, THHW, THW-2, THWN-2, RHH, RHW-2, USE-2, XHH, XHHW, XHHW-2, XHWN, XHWN-2, XHHN	
	COPPER			ALUMINUM OR COPPER-CLAD ALUMINUM			
18*	—	—	14	—	—	—	—
16*	—	—	18	—	—	—	—
14*	15	20	25	—	—	—	—
12*	20	25	30	15	20	25	12*

10*	30	35	40	25	30	35	10*
8	40	50	55	35	40	45	8
6	55	65	75	40	50	55	6
4	70	85	95	55	65	75	4
3	85	100	115	65	75	85	3
2	95	115	130	75	90	100	2
1	110	130	145	85	100	115	1
1/0	125	150	170	100	120	135	1/0
2/0	145	175	195	115	135	150	2/0
3/0	165	200	225	130	155	175	3/0
4/0	195	230	260	150	180	205	4/0
250	215	255	290	170	205	230	250
300	240	285	320	195	230	260	300
350	260	310	350	210	250	280	350
400	280	335	380	225	270	305	400
500	320	380	430	260	310	350	500
600	350	420	475	285	340	385	600
700	385	460	520	315	375	425	700
750	400	475	535	320	385	435	750
800	410	490	555	330	395	445	800

900	435	520	585	355	425	480	900
1000	455	545	615	375	445	500	1000
1250	495	590	665	405	485	545	1250
1500	525	625	705	435	520	585	1500
1750	545	650	735	455	545	615	1750
2000	555	665	750	470	560	630	2000

Notes:

1. Section 310.15(B) shall be referenced for ampacity correction factors where the ambient temperature is other than 30°C (86°F).

2. Section 310.15(C)(1) shall be referenced for more than three current-carrying conductors.

3. Section 310.16 shall be referenced for conditions of use.

*Section 240.4(D) shall be referenced for conductor overcurrent protection limitations, except as modified elsewhere in the *Code*.

NFPA 70, *National Electrical Code®*

Submitter: Christel Hunter, Cerro Wire

Certified Amending Motion to Accept Public Comment No. 1395	
CAM No. 70-106	**Recommended Text if Motion Passes:** **310.5(A) Minimum Size of Conductors.** The minimum size of conductors for voltage ratings up to and including 2000 volts shall be 14 ~~16~~ AWG copper, 12 ~~14~~ AWG copper-clad aluminum, or 12 AWG aluminum, except as permitted elsewhere in this code. Informational Note: See 210.23 for permissible loading of branch circuits.
	Recommended Text if Motion Fails: **310.5(A) Minimum Size of Conductors.** The minimum size of conductors for voltage ratings up to and including 2000 volts shall be 16 AWG copper, 14 AWG copper-clad aluminum, or 12 AWG aluminum, except as permitted elsewhere in this code. Informational Note: See 210.23 for permissible loading of branch circuits.

AMENDMENT BALLOT No. 70-106

Code Making Panel 6

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-106 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

310.5(A) Minimum Size of Conductors.

The minimum size of conductors for voltage ratings up to and including 2000 volts shall be 14 ~~16~~ AWG copper, 12 ~~14~~ AWG copper-clad aluminum, or 12 AWG aluminum, except as permitted elsewhere in this code.

Informational Note: See 210.23 for permissible loading of branch circuits.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-106 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

310.3(A) Minimum Size of Conductors.

The minimum size of conductors for voltage ratings up to and including 2000 volts shall be 14 AWG copper or 12 AWG aluminum or copper-clad aluminum, except as permitted elsewhere in this *Code*.

***Note: This text will be editorially renumbered to 310.5(A) if CAM passes the Technical Meeting vote but fails ballot of the Code-Making Panel, as a result of other amendments this cycle.**

NFPA 70, *National Electrical Code®*
Submitter: David Bixby, ACCA

Certified Amending Motion to Accept Public Comment No. 1817

CAM No. 70-107

Recommended Text if Motion Passes:

210.8(A) Dwelling Units.
All 125-volt through 250-volt receptacles installed in the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground shall have GFCI protection for personnel:

1. Bathrooms
2. Garages
3. Areas of accessory buildings not intended as habitable rooms and limited to storage, work, and similar uses
4. Outdoors
5. Crawl spaces — at or below grade level
6. Basements
7. Kitchens
8. Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking
9. Sinks — where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink
10. Boathouses
11. Bathtubs or shower stalls — where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall
12. Laundry areas
13. Indoor damp locations
14. Indoor wet locations

Exception No. 1: Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.

Exception No. 2: GFCI protection shall not be required for a receptacle supplying only a permanently installed premises security system.

Exception No. 3: GFCI protection shall not be required for listed weight-supporting ceiling receptacles (WSCR) used in combination with compatible weight-supporting attachment fittings (WSAF) installed for the purpose of supporting a ceiling luminaire or ceiling-suspended fan. If a general-purpose convenience receptacle is integral to the ceiling luminaire or ceiling-suspended fan, GFCI protection shall be provided.

Exception No. 4: Factory-installed receptacles that are not readily accessible and are mounted internally to exhaust fan assemblies shall not require GFCI protection unless required by the installation instructions or listing.

Exception No. 5: GFCI protection shall not be required for a single receptacle dedicated to serving an HVAC condensate pump. The receptacle shall be labeled "not GFCI protected" and another GFCI receptacle shall be located within three feet from the unprotected dedicated outlet. Any receptacles installed under this exception shall not be considered as meeting the requirements of 210.52(C) and (G).

Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.

***Note: The submitter of the Motion seeks to add his proposed Public Comment Text of Exception Number 5 to the final text recommended by the CMP, not replace Second Revision No. 7550 with his text. Therefore, the motion reflects this intention.**

Recommended Text if Motion Fails:

210.8(A) Dwelling Units.
All 125-volt through 250-volt receptacles installed in the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground shall have GFCI protection for personnel:

(1) Bathrooms
(2) Garages
(3) Areas of accessory buildings not intended as habitable rooms and limited to storage, work, and similar uses
(4) Outdoors
(5) Crawl spaces — at or below grade level
(6) Basements
(7) Kitchens
(8) Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking
(9) Sinks — where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink
(10) Boathouses
(11) Bathtubs or shower stalls — where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall
(12) Laundry areas
(13) Indoor damp locations
(14) Indoor wet locations

Exception No. 1: Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.

Exception No. 2: GFCI protection shall not be required for a receptacle supplying only a permanently installed premises security system.

Exception No. 3: GFCI protection shall not be required for listed weight-supporting ceiling receptacles (WSCR) used in combination with compatible weight-supporting attachment fittings (WSAF) installed for the purpose of supporting a ceiling luminaire or ceiling-suspended fan. If a general-purpose convenience receptacle is integral to the ceiling luminaire or ceiling-suspended fan, GFCI protection shall be provided.

Exception No. 4: Factory-installed receptacles that are not readily accessible and are mounted internally to exhaust fan assemblies shall not require GFCI protection unless required by the installation instructions or listing.

Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.

AMENDMENT BALLOT No. 70-107

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-107 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.8(A) Dwelling Units.
All 125-volt through 250-volt receptacles installed in the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground shall have GFCI protection for personnel:

1. Bathrooms
2. Garages
3. Areas of accessory buildings not intended as habitable rooms and limited to storage, work, and similar uses
4. Outdoors
5. Crawl spaces — at or below grade level
6. Basements
7. Kitchens
8. Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking
9. Sinks — where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink
10. Boathouses
11. Bathtubs or shower stalls — where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall
12. Laundry areas
13. Indoor damp locations
14. Indoor wet locations

Exception No. 1: Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.
Exception No. 2: GFCI protection shall not be required for a receptacle supplying only a permanently installed premises security system.
Exception No. 3: GFCI protection shall not be required for listed weight-supporting ceiling receptacles (WSCR) used in combination with compatible weight-supporting attachment fittings (WSAF) installed for the purpose of supporting a ceiling luminaire or ceiling-suspended fan. If a general-purpose convenience receptacle is integral to the ceiling luminaire or ceiling-suspended fan, GFCI protection shall be provided.
Exception No. 4: Factory-installed receptacles that are not readily accessible and are mounted internally to exhaust fan assemblies shall not require GFCI protection unless required by the installation instructions or listing.

Exception No. 5: GFCI protection shall not be required for a single receptacle dedicated to serving an HVAC condensate pump. The receptacle shall be labeled "not GFCI protected" and another GFCI receptacle shall be located within three feet from the unprotected dedicated outlet. Any receptacles installed under this exception shall not be considered as meeting the requirements of 210.52(C) and (G).

Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.

Note: The submitter of the Motion seeks to add his proposed Public Comment Text of Exception Number 5 to the final text recommended by the CMP, not replace Second Revision 7550 with his text. Therefore, the motion reflects this intention.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-107, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text.

NFPA 70, *National Electrical Code®*

Submitter: Ryan Jackson, Self Employed

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 117

CAM No. 70-108

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

~~**(B) Disconnects not Listed for EVSE or WPTE.**~~

~~Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.~~

(B) ~~(C)~~ Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(C) ~~(D)~~ Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(D) ~~(E)~~ Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43 (C) ~~(D)~~ shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43 (D) ~~(E)~~.

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

a. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment

b. Disconnect power to all EVSE and WPTE within sight of emergency shutoff

c. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)

d. Be a manual reset type

e. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-108

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-108 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

~~**(B) Disconnects not Listed for EVSE or WPTE.**~~

~~Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.~~

(B) ~~(C)~~ Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(C) ~~(D)~~ Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(D) ~~(E)~~ Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff

3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43 (C) ~~(D)~~ shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43 (D) ~~(E)~~.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-108 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Keith Jewell, Self Employed

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-114	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Bryce Nesbitt, Obviously Technical Inspections

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-120

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-120

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-120 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

~~1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~

~~2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~

~~3. Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-120 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Jason Potterf, Cisco

Certified Amending Motion to Accept Public Comment No. 1797	
CAM No. 70-122	**Recommended Text if Motion Passes:** **700.24 Luminaires with Control Inputs That Provide Emergency Illumination.** Luminaires with control inputs that provide emergency illumination shall comply with 700.24(A) or 700.24(B). **(A) Directly Controlled Emergency Luminaire (DCEL).** Where emergency illumination is provided by one or more DCELs that, upon loss of normal power, respond to an external active control signal on their control input from a listed ELCD to establish the required emergency illumination level, such DCELs shall be listed for use in emergency systems. **(B) Directly Controlled Luminaire (DCL).** Where emergency illumination is provided by one or more DCLs by disconnection of their control input by a listed ELCD upon loss of normal power, such DCLs shall not be required to be listed for use in emergency systems. If a DCL has configurable behavior for control input disconnection, it shall be set to provide ~~full luminaire output upon~~ the required emergency illumination level upon control input disconnection.
	Recommended Text if Motion Fails: **700.24 Luminaires with Control Inputs That Provide Emergency Illumination.** Luminaires with control inputs that provide emergency illumination shall comply with 700.24(A) or 700.24(B). **(A) Directly Controlled Emergency Luminaire (DCEL).** Where emergency illumination is provided by one or more DCELs that, upon loss of normal power, respond to an external active control signal on their control input from a listed ELCD to establish the required emergency illumination level, such DCELs shall be listed for use in emergency systems. **(B) Directly Controlled Luminaire (DCL).** Where emergency illumination is provided by one or more DCLs by disconnection of their control input by a listed ELCD upon loss of normal power, such DCLs shall not be required to be listed for use in emergency systems. If a DCL has configurable behavior for control input disconnection, it shall be set to provide full luminaire output upon control input disconnection.

AMENDMENT BALLOT No. 70-122

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-122 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

700.24 Luminaires with Control Inputs That Provide Emergency Illumination.
Luminaires with control inputs that provide emergency illumination shall comply with 700.24(A) or 700.24(B).

(A) Directly Controlled Emergency Luminaire (DCEL).
Where emergency illumination is provided by one or more DCELs that, upon loss of normal power, respond to an external active control signal on their control input from a listed ELCD to establish the required emergency illumination level, such DCELs shall be listed for use in emergency systems.

(B) Directly Controlled Luminaire (DCL).
Where emergency illumination is provided by one or more DCLs by disconnection of their control input by a listed ELCD upon loss of normal power, such DCLs shall not be required to be listed for use in emergency systems. If a DCL has configurable behavior for control input disconnection, it shall be set to provide ~~full luminaire output upon~~ the required emergency illumination level upon control input disconnection.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-122 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

700.24 Directly Controlled Emergency Luminaires.
Where emergency illumination is provided by one or more directly controlled emergency luminaires that, upon loss of normal power, respond to an external control input to establish the required emergency illumination level, such directly controlled emergency luminaries shall be listed for use in emergency systems. Luminaires that are energized to the required emergency illumination level by disconnection of their control input by a listed emergency lighting control device shall not be required to be listed for use in emergency systems.

NFPA 70, *National Electrical Code®*

Submitter: Stefan Kozma, Self Employed

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-123	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Indra Wiryadinata, Tesla

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Related Portions of First Revisions and First Correlating Revisions

CAM No. 70-127

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

~~1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~

1.~~2.~~ Disconnect power to all EVSE and WPTE within sight of emergency shutoff

2. ~~3.~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)

3. ~~4.~~Be a manual reset type

4. ~~5.~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

a. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment

b. Disconnect power to all EVSE and WPTE within sight of emergency shutoff

c. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)

d. Be a manual reset type

e. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-127

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-127 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

~~1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~

1.~~2.~~ Disconnect power to all EVSE and WPTE within sight of emergency shutoff

2. ~~3.~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)

3. ~~4.~~ Be a manual reset type

4. ~~5.~~ Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-127 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Bryan Nesbitt, Obviously Technical Inspections

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-128	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Paolo Rocca, 3M

Certified Amending Motion to Accept Public Comment No. 1755	
CAM No. 70-129	**Recommended Text if Motion Passes:** **315.2 Listing Requirements.** Type MV cables, Type MV cable joints, Type MV cable terminations, connectors, and associated fittings shall be listed. The listing requirement for Type MV cable joints, cable terminations, and connectors shall be effective January 1, ~~2029~~ 2032.
	Recommended Text if Motion Fails: **315.2 Listing Requirements.** Type MV cables, Type MV cable joints, Type MV cable terminations, connectors, and associated fittings shall be listed. The listing requirement for Type MV cable joints, cable terminations, and connectors shall be effective January 1, 2029.

AMENDMENT BALLOT No. 70-129

Code Making Panel 9

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-129 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

315.2 Listing Requirements.

Type MV cables, Type MV cable joints, Type MV cable terminations, connectors, and associated fittings shall be listed. The listing requirement for Type MV cable joints, cable terminations, and connectors shall be effective January 1, ~~2029~~ 2032.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-129 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

315.6 Listing Requirements. (Section becomes 315.2 in 2026 edition)

Type MV cables, type MV cable joints, type MV cable terminations, connectors, and associated fittings shall be listed. The listing requirement for Type MV cable joints, cable terminations, and connectors shall be effective January 1, 2026.

***Note: If this Motion passes vote of the Technical Meeting and fails ballot of the Code Making Panel, the numbering will be editorially corrected for the proper location in the 2026 edition.**

NFPA 70, *National Electrical Code®*

Submitter: Thomas Deary, AHRI

Certified Amending Motion to Accept Committee Comment No. 7584

CAM No. 70-130

Recommended Text if Motion Passes:

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, ~~2026~~ 2029.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked "HF" or "HF+" do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

Recommended Text if Motion Fails:

210.8 (F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

	Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked “HF” or “HF+” do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

AMENDMENT BALLOT No. 70-130

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-130 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, ~~2026~~ 2029.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked "HF" or "HF+" do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-130 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

NFPA 70, *National Electrical Code®*

Submitter: Dennis Murphy, EV Charging for All Coalition

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-132	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Dennis Murphy, EV Charging for All Coalition

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-133

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-133

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-133 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-133 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Dennis Murphy, EV Charging for All Coalition

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 7875	
CAM No. 70-134	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. ~~**(B) Permanently Wired.**~~ ~~**(1) 150 Volts or Less to Ground.**~~ ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ ~~**(2) Greater than 150 Volts to Ground.**~~ ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

AMENDMENT BALLOT No. 70-134

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-134 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.
(A) Cord- and Plug-Connected.
(1) 150 Volts or Less to Ground.
All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.
(2) Greater than 150 Volts to Ground.
All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.
~~**(B) Permanently Wired.**~~
~~**(1) 150 Volts or Less to Ground.**~~
~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~
~~**(2) Greater than 150 Volts to Ground.**~~
~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~
~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~
~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-134 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 70, *National Electrical Code®*

Submitter: Paul Nijssen, EVCHARGE4U, Inc.

Certified Amending Motion to Reject an Identifiable Part of Second Revision Number No. 7875	
CAM No. 70-135	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) ~~150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2)~~ Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*

AMENDMENT BALLOT No. 70-135

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-135 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

(B) Permanently Wired.

(1) ~~150 Volts or Less to Ground.~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~(2)~~ Greater than 150 Volts to Ground.

All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.

Exception No. 1~~ to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.

Exception No. 2~~ to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-135 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 70, *National Electrical Code®*

Submitter: Paul Nijssen, EVCHARGE4U, Inc.

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-136

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-136

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-136 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-136 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Paul Nijssen, EVCHARGE4U, Inc.

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-137	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Armin Karcher, Affiliation not provided

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-138

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-138

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-138 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-138 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: David Graves, simpleSwitch

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-140	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: David Graves, simpleSwitch

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-141

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-141

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-141 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-141 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: David Graves, simpleSwitch

Certified Amending Motion to Reject an Identifiable Part of Second Revision Number No. 7875	
CAM No. 70-142	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) ~~150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2)~~ Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*

AMENDMENT BALLOT No. 70-142

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-142 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

(B) Permanently Wired.

(1) ~~150 Volts or Less to Ground.~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~(2)~~ Greater than 150 Volts to Ground.

All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.

Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.

Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-142 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 70, *National Electrical Code®*

Submitter: Sven Thesen, Sven Thesen & Associates

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-143	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Sven Thesen, Sven Thesen & Associates

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-144

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-144

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-144 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-144 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Sven Thesen, Sven Thesen & Associates

Certified Amending Motion to Reject an Identifiable Part of Second Revision Number No. 7875	
CAM No. 70-145	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) ~~150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2)~~ Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*

AMENDMENT BALLOT No. 70-145

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-145 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

(B) Permanently Wired.

(1) ~~150 Volts or Less to Ground.~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~(2)~~ Greater than 150 Volts to Ground.

All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.

Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.

Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-145 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 70, *National Electrical Code®*

Submitter: Shannon Dulaney, It's Electric

Certified Amending Motion to Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions	
CAM No. 70-147	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter ~~(GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI)~~ Protection for Personnel.** **~~(A) Cord- and Plug-Connected.~~** **~~(1) 150 Volts or Less to Ground.~~** All receptacles ~~rated 150 volts or less to ground,~~ installed for the connection of electric vehicle charging shall have ~~GFCI~~ ground-fault circuit-interrupter protection for personnel ~~protection~~. **~~(2) Greater than 150 Volts to Ground.~~** ~~All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.~~ **~~(B) Permanently Wired.~~** **~~(1) 150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2) Greater than 150 Volts to Ground.~~** ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.**

	All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

NFPA 70, *National Electrical Code®*

Submitter: Genevieve Cullen, EDTA

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-148

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-148

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-148 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-148 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Shannon Dulaney, It's Electric Inc.

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-149

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

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For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

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For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

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Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

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(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-149

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-149 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

~~1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~

~~2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~

~~3. Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-149 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Achim Ginsberg-Klemmt, GismoPower LLC

Certified Amending Motion to Accept Public Comment No. 1189

CAM No. 70-150

Recommended Text if Motion Passes:

Article 624 Electric Self-Propelled and Unpropelled Vehicle Power Transfer Systems (ESVSEs)

Part I. General

624.1 Scope.

This article covers the electrical conductors and equipment connecting ~~an~~ a portable, electricity generating household appliance and an electric self-propelled or an unpropelled vehicle (ESV) to premises wiring for the purposes of charging, power export, or bidirectional current flow.

Informational Note No. 1: See NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on fire protection of industrial trucks.

Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.

Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.

Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.

Informational Note No. 5: See NECA 413-2019, *Installing and Maintaining Electric Vehicle Supply Equipment (EVSE)*, for information on the procedures for installing and maintaining AC Level 1, AC Level 2, and fast-charging dc electric vehicle supply equipment (EVSE).

624.2 Listing Requirements.

Electric self-propelled or unpropelled vehicle or portable electricity generating household appliance supply equipment (ESVSE), including power supply cords for the purposes of charging, power export, or bidirectional current flow, shall be listed.

Note: Article 627 which is referenced in the Public Comment was moved to Article 624 by Second Revision No. Additionally, the remaining text of the entirety of Article 624 remains unaffected by this Motion.

Recommended Text if Motion Fails:

Article 624 Electric Self-Propelled Vehicle Power Transfer Systems (ESVSEs)

Part I. General

624.1 Scope.

This article covers the electrical conductors and equipment connecting an electric self-propelled vehicle (ESV) to premises wiring for the purposes of charging, power export, or bidirectional current flow.

Informational Note No. 1: See NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on fire protection of industrial trucks.

Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.

Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.

Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.

Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.

Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.

Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.

Informational Note No. 5: See NECA 413-2019, *Installing and Maintaining Electric Vehicle Supply Equipment (EVSE)*, for information on the procedures for installing and maintaining AC Level 1, AC Level 2, and fast-charging dc electric vehicle supply equipment (EVSE).

624.2 Listing Requirements.

Electric self-propelled vehicle supply equipment (ESVSE), including power supply cords for the purposes of charging, power export, or bidirectional current flow, shall be listed.

AMENDMENT BALLOT No. 70-150

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-150 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

Article 624 Electric Self-Propelled and Unpropelled Vehicle Power Transfer Systems (ESVSEs)

Part I. General

624.1 Scope.

This article covers the electrical conductors and equipment connecting ~~an~~ a portable, electricity generating household appliance and an electric self-propelled or an unpropelled vehicle (ESV) to premises wiring for the purposes of charging, power export, or bidirectional current flow.

Informational Note No. 1: See NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on fire protection of industrial trucks.

Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.

Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.

Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.

Informational Note No. 5: See NECA 413-2019, *Installing and Maintaining Electric Vehicle Supply Equipment (EVSE)*, for information on the procedures for installing and maintaining AC Level 1, AC Level 2, and fast-charging dc electric vehicle supply equipment (EVSE).

624.2 Listing Requirements.

Electric self-propelled or unpropelled vehicle or portable electricity generating household appliance supply equipment (ESVSE), including power supply cords for the purposes of charging, power export, or bidirectional current flow, shall be listed.

****Note:*** *Article 627 which is referenced in the Public Comment was moved to Article 624 by Second Revision No. Additionally, the remaining text of the entirety of Article 624 remains unaffected by this Motion.*

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-150 , and no previous edition text exists, the text supported by the membership vote is simply deleted.

No Previous Edition Text

NFPA 70, *National Electrical Code®*

Submitter: Genevieve Cullen, EDTA

Certified Amending Motion to Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions	
CAM No. 70-151	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter ~~(GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI)~~ Protection for Personnel.** **~~(A) Cord- and Plug-Connected.~~** **~~(1) 150 Volts or Less to Ground.~~** All receptacles ~~rated 150 volts or less to ground,~~ installed for the connection of electric vehicle charging shall have ~~GFCI~~ ground-fault circuit-interrupter protection for personnel ~~protection~~. **~~(2) Greater than 150 Volts to Ground.~~** ~~All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.~~ **~~(B) Permanently Wired.~~** **~~(1) 150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2) Greater than 150 Volts to Ground.~~** ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.**

	All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

NFPA 70, *National Electrical Code®*

Submitter: Kevin Arnold, Eaton Bussmann

Certified Amending Motion to Reject Second Revision No. 7740	
CAM No. 70-156	**Recommended Text if Motion Passes:** **620.16(C) Available Fault Current Field Marking.** The elevator control panel shall be legibly marked in the field with the available fault current at its line terminals. The field marking(s) shall include the date the available fault current calculation was performed and shall meet the requirements of 110.21(B). The calculation shall be documented and made available to those authorized to design, install, inspect, maintain, or operate the system. When modifications to the electrical system occur that affect the available fault current at the elevator control panel, the available fault current shall be verified or recalculated as necessary to ensure the elevator control panel's short-circuit current rating is sufficient for the available fault current at the line terminals of the equipment. The required field marking(s) shall be adjusted to reflect the new level of available fault current.
	Recommended Text if Motion Fails: ***Note:** The text of 620.16(C) was new in First Draft and deleted by Second Revision No. 7740. Therefore, the recommended text is same as previous edition text which is no text.*

AMENDMENT BALLOT No. 70-156

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-156 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

620.16(C) Available Fault Current Field Marking.

The elevator control panel shall be legibly marked in the field with the available fault current at its line terminals. The field marking(s) shall include the date the available fault current calculation was performed and shall meet the requirements of 110.21(B). The calculation shall be documented and made available to those authorized to design, install, inspect, maintain, or operate the system.

When modifications to the electrical system occur that affect the available fault current at the elevator control panel, the available fault current shall be verified or recalculated as necessary to ensure the elevator control panel's short-circuit current rating is sufficient for the available fault current at the line terminals of the equipment. The required field marking(s) shall be adjusted to reflect the new level of available fault current.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-156, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No Previous Edition Text

NFPA 70, *National Electrical Code®*

Submitter: Eric Sprague, Mitsubishi Electric US, Inc.

Certified Amending Motion to Accept Committee Comment No. 7584

CAM No. 70-160

Recommended Text if Motion Passes:

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, ~~2026~~ 2029.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked "HF" or "HF+" do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

Recommended Text if Motion Fails:

210.8 (F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

	Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked “HF” or “HF+” do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

AMENDMENT BALLOT No. 70-160

Code Making Panel 2

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-160 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets other than those covered in 210.8(A) Exception No. 1, including outdoor outlets installed at the following locations and supplied by single-phase branch circuits rated 150 volts or less to ground, 60 amperes or less, shall be GFCI protected:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, ~~2026~~ 2029.

Exception No. 3: Listed Class C SPGFCI protection shall be permitted for listed HVAC equipment. If a Class C SPGFCI is provided, the disconnect serving the HVAC equipment shall be marked "Warning: Class C SPGFCI Protection Provided for HVAC Unit."

Informational Note: See UL 943C, *Outline of Investigation for Special Purpose Ground-Fault Circuit-Interrupters*, for further information. SPGFCIs marked "HF" or "HF+" do not trip when the frequency weighted differential current is less than the specified value for a Class C, Class D, or Class E SPGFCI.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-160 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

210.8(F) Outdoor Outlets.

For dwellings, all outdoor outlets, other than those covered in 210.8(A), Exception No. 1, including outlets installed in the following locations, and supplied by single-phase branch circuits rated 150 volts or less to ground, 50 amperes or less, shall be provided with GFCI protection:

(1) Garages that have floors located at or below grade level

(2) Accessory buildings

(3) Boathouses

If equipment supplied by an outlet covered under the requirements of this section is replaced, the outlet shall be supplied with GFCI protection.

Exception No. 1: GFCI protection shall not be required on lighting outlets other than those covered in 210.8(C).

Exception No. 2: GFCI protection shall not be required for listed HVAC equipment. This exception shall expire September 1, 2026.

NFPA 70, ***National Electrical Code®***

Submitter: Achim Ginsberg-Klemmt, GismoPower LLC

Certified Amending Motion to Reject Second Revision No. 7898 and any Related Portions of First Revisions and First Correlating Revisions

CAM No. 70-162

Recommended Text if Motion Passes:

~~**Article 624 Electric Self-Propelled Vehicle Power Transfer Systems (ESVSEs)**~~

~~**Part I. General**~~

~~**624.1 Scope.**~~

~~This article covers the electrical conductors and equipment connecting an electric self-propelled vehicle (ESV) to premises wiring for the purposes of charging, power export, or bidirectional current flow.~~

~~Informational Note No. 1: See NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on fire protection of industrial trucks.~~

~~Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.~~

~~Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.~~

~~Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.~~

~~Informational Note No. 5: See NECA 413-2019, *Installing and Maintaining Electric Vehicle Supply Equipment (EVSE)*, for information on the procedures for installing and maintaining AC Level 1, AC Level 2, and fast-charging dc electric vehicle supply equipment (EVSE).~~

~~**624.2 Listing Requirements.**~~

~~Electric self-propelled vehicle supply equipment (ESVSE), including power supply cords for the purposes of charging, power export, or bidirectional current flow, shall be listed.~~

~~**Part II. Equipment Construction**~~

~~**624.17 Cords and Cables.**~~

~~**(A) Power-Supply Cords.**~~

~~Cables for cord-connected ESVSE shall comply with all of the following:~~

~~(1) Be any of the types specified in 624.17(B)(1)(1) or hard service cord, junior hard service cord, or portable power cable types in accordance with Table 400.4. Hard service cord, junior hard service cord, or portable power cable types shall be listed, as applicable, for exposure to oil and damp and wet locations.~~

~~(2) Have an ampacity as specified in Table 400.5(A)(1) or, for 8 AWG and larger, in the 60°C (140°F) columns of Table 400.5(A)(2)~~

~~(3) Have a personnel protection system located within the ESVSE, at the attachment plug, or within the first 300 mm (12 in.) of the power-supply cordand have an overall length not exceeding 15.25 m (50 ft)~~

~~**(B) Output Cables to ESV.**~~

~~**(1) Output Cable Type.**~~

~~Output cables to ESVs shall be one of the following~~

~~(1) Listed Types EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cables as specified in Table 400.4~~

(2) Integral parts of listed ESVSE

(2) Overall Output Cable Length.

The overall usable length of output cable to the ESV shall not exceed 15 m (50 ft) unless equipped with a cable management system that is part of the listed ESVSE.

(a) The usable length of output cables to ESVs shall be measured from the cable exits of the ESVSE to the face of ESV connectors.

(b) Where wireless power transfer equipment (WPTE) is hand fastened, the output cables to the primary pads shall be measured from the cable exits of the control boxes to the cable inlets at the primary pads.

(C) Interconnecting Cabling Systems.

Other cabling systems that are integral parts of listed supply equipment and are intended to interconnect pieces of equipment within ESVSE systems using approved installation methods shall be permitted.

624.22 Personnel Protection Systems.

ESVSE shall have a listed system of protection against electric shock of personnel and comply with the following:

(1) Where cord- and plug-connected equipment is used, the interrupting device of a listed personnel protection system shall be provided according to 624.17(A).

(2) A personnel protection system shall not be required for power transfer equipment that supplies less than 60 volts dc.

Part III. Installation

624.40 ESVSE Branch Circuits.

Each outlet installed for the purpose of supplying ESVSE greater than 16 amperes, or 120 volts, shall be supplied by an individual branch circuit.

Exception: Branch circuits shall be permitted to feed multiple ESVSE as permitted by 624.42(A) or 624.42(B).

624.41 Overcurrent Protection.

(A) General.

Overcurrent protection for feeders and branch circuits supplying ESVSE and WPTE, including bidirectional equipment, shall be sized for continuous duty and have a current rating of not less than 125 percent of the maximum load of the equipment.

(B) Noncontinuous Loads.

Where noncontinuous loads are supplied from the same feeder, OCPDs shall have current ratings of not less than the sum of the noncontinuous loads plus 125 percent of the continuous loads.

624.42 Rating.

ESVSE shall have sufficient rating to supply the load served. Charging loads shall be considered continuous loads for the purposes of this article. Service and feeders shall be sized in accordance with the product ratings, unless the overall rating of the installation can be limited through controls as permitted by 624.42(A) or 624.42(B).

(A) Power Control System (PCS).

Where PCSs in accordance with Article 130 Part II provide load management of ESVSE, the maximum equipment load on service and feeders shall be the maximum load permitted by the PCSs. PCSs shall be permitted to be integral to one piece of equipment or integral to listed systems consisting of more than one piece of equipment. When one or more pieces of equipment are provided with integral load management control, systems shall be marked to indicate such control is provided.

(B) Supply Equipment with Adjustable Settings.

Supply equipment with restricted access to an ampere adjusting means complying with 130.70(B) shall be permitted. If adjustments have an impact on the rating label, such changes shall comply with manufacturer's instructions, with

~~the adjusted rating appearing on the rating label with sufficient durability to withstand the environment involved. Such supply equipment shall be permitted to have ampere ratings that are equal to the adjusted current setting.~~

~~624.43 Disconnecting Means.~~

~~Supply equipment rated more than 60 amperes or more than 150 volts to ground shall be provided with a disconnecting means installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.~~

~~624.44 Equipment Connection.~~

~~ESVSE and WPTE shall be connected to the premises wiring system in accordance with one of the methods in 624.44(A) through 624.44(C).~~

~~(A) Portable Equipment.~~

~~Portable equipment shall be connected to the premises wiring system by one or more of the following methods:~~

~~(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts, single phase, 15 or 20 amperes~~

~~(2) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 250 volts, single phase, 15 or 20 amperes~~

~~(3) A nonlocking, 2-pole, 3-wire or 3-pole, 4-wire grounding-type receptacle outlet rated at 250 volts, single phase, 30 or 50 amperes, or at 125/250 volts, single-phase, 30, 50, or 60 amperes~~

~~(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes~~

~~(B) Fastened-in-Place Equipment.~~

~~Equipment that is fastened-in-place shall be connected to the premises wiring system by one of the following methods:~~

~~(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase, up to 50 amperes~~

~~(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase, up to 50 amperes~~

~~(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase, 30, 50, or 60 amperes~~

~~(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes~~

~~(C) Securely Fastened in Place Equipment.~~

~~All other ESVSE and WPTE shall be permanently wired and securely fastened in place to supporting surfaces.~~

~~624.46 Loss of Primary Source.~~

~~Means shall be provided such that energy cannot be backfed through the ESV and supply equipment to the premises wiring system upon loss of voltage from the utility or other electrical systems unless permitted by 624.48.~~

~~624.47 Multiple Feeder or Branch Circuits.~~

~~Where equipment is identified for the application, more than one feeder or branch circuit shall be permitted to supply equipment.~~

~~624.48 Interactive Equipment.~~

~~ESVSE or WPTE that incorporates power export functions and are part of interactive systems that serve as optional standby systems, electric power production sources, or bidirectional power feeds shall be listed and marked as suitable for that purpose. When ESVSE or WPTE are used as optional standby systems, the requirements of Article 702 shall apply; when ESVSE or WPTE are used as electric power production sources, the requirements of Article 705 shall apply.~~

~~624.49 Island Mode.~~

~~Electric self-propelled vehicle power export equipment (ESVPE) and bidirectional ESVSE that incorporate power export functions shall be permitted to be part of interconnected power systems operating in island mode.~~

624.50 Location.

ESVSE shall be located for direct electrical coupling of ESV connectors (conductive or inductive) to ESVs. Unless specifically listed and marked for the location, the coupling means of ESVs shall be stored or located at a height of not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above the grade level for outdoor locations.

This requirement shall not apply to portable ESVSE constructed in accordance with 624.44(A).

624.52 Ventilation.

Ventilation for charging ESVs in indoor enclosed spaces shall be determined by 624.52(A) or 624.52(B).

(A) Ventilation Not Required.

Where ESV storage batteries are used or where equipment is listed for charging ESVs indoors without ventilation, mechanical ventilation shall not be required.

(B) Ventilation Required.

Where equipment is listed for charging ESVs that require ventilation for indoor charging, mechanical ventilation shall be provided. The ventilation shall include both supply and exhaust equipment and shall be permanently installed and located to intake from, and vent directly to, the outdoors. Positive-pressure ventilation systems shall be permitted only in vehicle charging buildings or areas that have been specifically designed and approved for that application. Mechanical ventilation requirements shall be determined by one of the methods specified in 624.52(B)(1) through 624.52(B)(4).

Informational Note: An example of mechanical ventilation would be a fan.

(1) Table Values.

For supply voltages and currents specified in Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2), the minimum ventilation requirements shall be as specified in Table Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2) for each of the total number of electric vehicles that can be charged at one time.

Table 624.52(B)(1)(1) Minimum Ventilation Required in Cubic Meters per Minute (m^3/min) for Each of the Total Number of ESVs That Can Be Charged at One Time

Branch-Circuit Ampere Rating	Branch-Circuit Voltage							
	Single-Phase				3-Phase			
	dc ≥ 50 V	120 V	208 V	240 V or 120/240 V	208 V or 208Y/120 V	240 V	480 V or 480Y/277 V	600 V or 600Y/347 V
15	0.5	1.1	1.8	2.1	—	—	—	—
20	0.6	1.4	2.4	2.8	4.2	4.8	9.7	12
30	0.9	2.1	3.6	4.2	6.3	7.2	15	18
40	1.2	2.8	4.8	5.6	8.4	9.7	19	24
50	1.5	3.5	6.1	7	10	12	24	30
60	1.8	4.2	7.3	8.4	13	15	29	36
100	2.9	7	12	14	21	24	48	60

150	—	—	—	—	31	36	73	91
200	—	—	—	—	42	48	97	120
250	—	—	—	—	52	60	120	150
300	—	—	—	—	63	73	145	180
350	—	—	—	—	73	85	170	210
400	—	—	—	—	84	97	195	240

Table 624.52(B)(1)(2) Minimum Ventilation Required in Cubic Feet per Minute (cfm) for Each of the Total Number of Electric Vehicles That Can Be Charged at One Time

Branch-Circuit Ampere Rating	Branch-Circuit Voltage							
	Single-Phase				3-Phase			
	dc			240 V or	208 V or		480 V or	600 V or
	≥ 50 V	120 V	208 V	120/240 V	208Y/120 V	240 V	480Y/277 V	600Y/347
15	15.4	37	64	74	—	—	—	—
20	20.4	49	85	99	148	171	342	427
30	30.8	74	128	148	222	256	512	641
40	41.3	99	171	197	296	342	683	854
50	51.3	123	214	246	370	427	854	1066
60	61.7	148	256	296	444	512	1025	1281
100	102.5	246	427	493	740	854	1708	2135
150	—	—	—	—	1110	1281	2562	3203
200	—	—	—	—	1480	1708	3416	4270
250	—	—	—	—	1850	2135	4270	5338
300	—	—	—	—	2221	2562	5125	6406
350	—	—	—	—	2591	2989	5979	7473
400	—	—	—	—	2961	3416	6832	8541

(2) Other Values.

For supply voltages and currents other than specified in Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2), the minimum ventilation requirements shall be calculated by means of Equation 624.52(B)(2)a or Equation 624.52(B)(2)b for single-phase ac or dc or Equation 624.52(B)(2)c or Equation 624.52(B)(2)d for 3-phase ac.

~~V$entilation\ single-phase\ ac\ or\ dc\ in\ cubic\ meters\ per\ minute\ \left(\frac{m^3}{min}\right) = \frac{(volts)(amperes)}{1718}$ [624.52(B)(2)a]~~

~~$Ventilation\ single-phase\ ac\ or\ dc\ in\ cubic\ feet\ per\ minute\ (cfm) = \frac{(volts)(amperes)}{48.7}$ [624.52(B)(2)b]~~

~~$Ventilation\ 3-phase\ ac\ or\ dc\ in\ cubic\ meters\ per\ minute\ \left(\frac{m^3}{min}\right) = \frac{(1.732)(volts)(amperes)}{1718}$ [624.52(B)(2)c]~~

~~$Ventilation\ 3-phase\ ac\ or\ dc\ in\ cubic\ feet\ per\ minute\ (cfm) = \frac{(1.732)(volts)(amperes)}{48.7}$ [624.52(B)(2)d]~~

~~(3) Engineered Systems.~~

~~For equipment ventilation systems designed by persons qualified to perform such calculations as integral parts of total ventilation systems for buildings, minimum ventilation requirements shall be permitted to be determined in accordance with calculations specified in engineering studies.~~

~~(4) Supply Circuits.~~

~~Supply circuits to mechanical ventilation equipment shall be electrically interlocked with the equipment and remain energized during the entire electric vehicle charging cycle. Equipment receptacles rated at 125 volts, single phase, 15 and 20 amperes shall be switched, with mechanical ventilation systems electrically interlocked through the switch supply power to the receptacles. Equipment supplied from less than 50 volts dc shall be switched with mechanical ventilation systems electrically interlocked through the switch supply power to the equipment.~~

~~624.54 Ground-Fault Circuit-Interrupter Protection for Personnel.~~

~~All receptacles installed for the connection of ESVSE shall have GFCI protection for personnel.~~

~~624.56 Receptacle Enclosures.~~

~~All receptacles installed in wet locations for electric vehicle charging shall have enclosures that are weatherproof with attachment plug caps inserted or removed. Outlet box hoods installed for this purpose shall be listed and be identified as extra-duty. Other listed products, enclosures, or assemblies providing weatherproof protection that do not use outlet box hoods shall not be required to be marked extra-duty.~~

~~Part IV. Wireless Power Transfer Equipment~~

~~624.101 Grounding.~~

~~Primary pad base plates shall be constructed of nonferrous metal and be connected to circuit equipment grounding conductors unless the listed WPTE employs double-insulation systems. Base plates shall be sized to match the size of the primary pad enclosures.~~

~~624.102 Installation.~~

~~(A) General.~~

~~Control pads, if included in WPTE configuration, shall comply with 624.102(B). The primary pad shall comply with 624.102(C).~~

~~(B) Control Box.~~

~~Control box enclosures shall be suitable for the environment and be mounted at a height not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above grade level for outdoor locations in one of the following forms:~~

~~(1) Pedestals~~

~~(2) Walls or poles~~

~~(3) Buildings or structures~~

~~(4) Raised concrete pads~~

~~**(C) Primary Pads.**~~

~~Primary pads shall be installed secured to the surface or embedded in the surface of the floor with their tops flush with or below the surface in accordance with the manufacturer's instructions and the following:~~

~~(1) If located in an area requiring snow removal, primary pads shall not be located on or above the surface.~~

~~*Exception: Where installed on private property where snow removal is done manually, primary pads shall be permitted to be on or above the surface.*~~

~~(2) Primary pad enclosures shall be suitable for the environment and, if located in an area subject to severe climatic conditions (e.g., flooding), suitably rated for those conditions.~~

~~**(D) Protection of Cords and Cables to Primary Pads.**~~

~~Output cables to primary pads shall be secured in place over its entire length to restrict movement and to prevent strain at the connection points. If installed in conditions where drive-over could occur, cables shall be provided with supplemental protection.~~

~~Where control boxes are not provided, cords or cables supplying power to primary pads shall be secured in place to restrict movement and to prevent strain at the connection points. Where subject to vehicular traffic, supplemental protection shall be provided.~~

~~**(E) Other Wiring Systems.**~~

~~Other wiring systems and fittings specifically listed for use on WPTE shall be permitted.~~

Recommended Text if Motion Fails:

Article 624 Electric Self-Propelled Vehicle Power Transfer Systems (ESVSEs)

Part I. General

624.1 Scope.

This article covers the electrical conductors and equipment connecting an electric self-propelled vehicle (ESV) to premises wiring for the purposes of charging, power export, or bidirectional current flow.

Informational Note No. 1: See NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*, for information on fire protection of industrial trucks.

Informational Note No. 2: See UL 2594, *Electrical Vehicle Supply Equipment*, for information on conductive electric vehicle supply equipment.

Informational Note No. 3: See UL 2202, *Electric Vehicle Charging System Equipment*, for information on conductive electric vehicle charging equipment.

Informational Note No. 4: See UL 2750-2020, *Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles*, for information on wireless power transfer equipment for transferring power to an electric vehicle.

Informational Note No. 5: See NECA 413-2019, *Installing and Maintaining Electric Vehicle Supply Equipment (EVSE)*, for information on the procedures for installing and maintaining AC Level 1, AC Level 2, and fast-charging dc electric vehicle supply equipment (EVSE).

624.2 Listing Requirements.

Electric self-propelled vehicle supply equipment (ESVSE), including power supply cords for the purposes of charging, power export, or bidirectional current flow, shall be listed.

Part II. Equipment Construction

624.17 Cords and Cables.

(A) Power-Supply Cords.

Cables for cord-connected ESVSE shall comply with all of the following:

(1) Be any of the types specified in 624.17(B)(1)(1) or hard service cord, junior hard service cord, or portable power cable types in accordance with Table 400.4. Hard service cord, junior hard service cord, or portable power cable types shall be listed, as applicable, for exposure to oil and damp and wet locations.

(2) Have an ampacity as specified in Table 400.5(A)(1) or, for 8 AWG and larger, in the 60°C (140°F) columns of Table 400.5(A)(2)

(3) Have a personnel protection system located within the ESVSE, at the attachment plug, or within the first 300 mm (12 in.) of the power-supply cordand have an overall length not exceeding 15.25 m (50 ft)

(B) Output Cables to ESV.

(1) Output Cable Type.

Output cables to ESVs shall be one of the following

(1) Listed Types EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cables as specified in Table 400.4

(2) Integral parts of listed ESVSE

(2) Overall Output Cable Length.

The overall usable length of output cable to the ESV shall not exceed 15 m (50 ft) unless equipped with a cable management system that is part of the listed ESVSE.

(a) The usable length of output cables to ESVs shall be measured from the cable exits of the ESVSE to the face of ESV connectors.

(b) Where wireless power transfer equipment (WPTE) is hand fastened, the output cables to the primary pads shall be measured from the cable exits of the control boxes to the cable inlets at the primary pads.

(C) Interconnecting Cabling Systems.

Other cabling systems that are integral parts of listed supply equipment and are intended to interconnect pieces of equipment within ESVSE systems using approved installation methods shall be permitted.

624.22 Personnel Protection Systems.

ESVSE shall have a listed system of protection against electric shock of personnel and comply with the following:

(1) Where cord- and plug-connected equipment is used, the interrupting device of a listed personnel protection system shall be provided according to 624.17(A).

(2) A personnel protection system shall not be required for power transfer equipment that supplies less than 60 volts dc.

Part III. Installation

624.40 ESVSE Branch Circuits.

Each outlet installed for the purpose of supplying ESVSE greater than 16 amperes, or 120 volts, shall be supplied by an individual branch circuit.

Exception: Branch circuits shall be permitted to feed multiple ESVSE as permitted by 624.42(A) or 624.42(B).

624.41 Overcurrent Protection.

(A) General.

Overcurrent protection for feeders and branch circuits supplying ESVSE and WPTE, including bidirectional equipment, shall be sized for continuous duty and have a current rating of not less than 125 percent of the maximum load of the equipment.

(B) Noncontinuous Loads.

Where noncontinuous loads are supplied from the same feeder, OCPDs shall have current ratings of not less than the sum of the noncontinuous loads plus 125 percent of the continuous loads.

624.42 Rating.

ESVSE shall have sufficient rating to supply the load served. Charging loads shall be considered continuous loads for the purposes of this article. Service and feeders shall be sized in accordance with the product ratings, unless the overall rating of the installation can be limited through controls as permitted by 624.42(A) or 624.42(B).

(A) Power Control System (PCS).

Where PCSs in accordance with Article 130 Part II provide load management of ESVSE, the maximum equipment load on service and feeders shall be the maximum load permitted by the PCSs. PCSs shall be permitted to be integral to one piece of equipment or integral to listed systems consisting of more than one piece of equipment. When one or more pieces of equipment are provided with integral load management control, systems shall be marked to indicate such control is provided.

(B) Supply Equipment with Adjustable Settings.

Supply equipment with restricted access to an ampere adjusting means complying with 130.70(B) shall be permitted. If adjustments have an impact on the rating label, such changes shall comply with manufacturer's instructions, with the adjusted rating appearing on the rating label with sufficient durability to withstand the environment involved. Such supply equipment shall be permitted to have ampere ratings that are equal to the adjusted current setting.

624.43 Disconnecting Means.

Supply equipment rated more than 60 amperes or more than 150 volts to ground shall be provided with a disconnecting means installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

624.44 Equipment Connection.

ESVSE and WPTE shall be connected to the premises wiring system in accordance with one of the methods in 624.44(A) through 624.44(C).

(A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts, single phase, 15 or 20 amperes

(2) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 250 volts, single phase, 15 or 20 amperes

(3) A nonlocking, 2-pole, 3-wire or 3-pole, 4-wire grounding-type receptacle outlet rated at 250 volts, single phase, 30 or 50 amperes, or at 125/250 volts, single-phase, 30, 50, or 60 amperes

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

(B) Fastened-in-Place Equipment.

Equipment that is fastened-in-place shall be connected to the premises wiring system by one of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase, up to 50 amperes

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase, up to 50 amperes

(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase, 30, 50, or 60 amperes

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

(C) Securely Fastened in Place Equipment.

All other ESVSE and WPTE shall be permanently wired and securely fastened in place to supporting surfaces.

624.46 Loss of Primary Source.

Means shall be provided such that energy cannot be backfed through the ESV and supply equipment to the premises wiring system upon loss of voltage from the utility or other electrical systems unless permitted by 624.48.

624.47 Multiple Feeder or Branch Circuits.

Where equipment is identified for the application, more than one feeder or branch circuit shall be permitted to supply equipment.

624.48 Interactive Equipment.

ESVSE or WPTE that incorporates power export functions and are part of interactive systems that serve as optional standby systems, electric power production sources, or bidirectional power feeds shall be listed and marked as suitable for that purpose. When ESVSE or WPTE are used as optional standby systems, the requirements of Article 702 shall apply; when ESVSE or WPTE are used as electric power production sources, the requirements of Article 705 shall apply.

624.49 Island Mode.

Electric self-propelled vehicle power export equipment (ESVPE) and bidirectional ESVSE that incorporate power export functions shall be permitted to be part of interconnected power systems operating in island mode.

624.50 Location.

ESVSE shall be located for direct electrical coupling of ESV connectors (conductive or inductive) to ESVs. Unless specifically listed and marked for the location, the coupling means of ESVs shall be stored or located at a height of not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above the grade level for outdoor locations.

This requirement shall not apply to portable ESVSE constructed in accordance with 624.44(A).

624.52 Ventilation.

Ventilation for charging ESVs in indoor enclosed spaces shall be determined by 624.52(A) or 624.52(B).

(A) Ventilation Not Required.

Where ESV storage batteries are used or where equipment is listed for charging ESVs indoors without ventilation, mechanical ventilation shall not be required.

(B) Ventilation Required.

Where equipment is listed for charging ESVs that require ventilation for indoor charging, mechanical ventilation shall be provided. The ventilation shall include both supply and exhaust equipment and shall be permanently installed and located to intake from, and vent directly to, the outdoors. Positive-pressure ventilation systems shall be permitted only in vehicle charging buildings or areas that have been specifically designed and approved for that application. Mechanical ventilation requirements shall be determined by one of the methods specified in 624.52(B)(1) through 624.52(B)(4).

Informational Note: An example of mechanical ventilation would be a fan.

(1) Table Values.

For supply voltages and currents specified in Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2), the minimum ventilation requirements shall be as specified in Table Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2) for each of the total number of electric vehicles that can be charged at one time.

Table 624.52(B)(1)(1) Minimum Ventilation Required in Cubic Meters per Minute (m^3/min) for Each of the Total Number of ESVs That Can Be Charged at One Time

Branch-Circuit Ampere Rating	Branch-Circuit Voltage							
	Single-Phase				3-Phase			
	dc. ≥ 50 V	120 V	208 V	240 V or. 120/240 V	208 V or. 208Y/120 V	240 V	480 V or. 480Y/277 V	600 V or. 600Y/347 V
15	0.5	1.1	1.8	2.1	—	—	—	—
20	0.6	1.4	2.4	2.8	4.2	4.8	9.7	12
30	0.9	2.1	3.6	4.2	6.3	7.2	15	18

40	1.2	2.8	4.8	5.6	8.4	9.7	19	24
50	1.5	3.5	6.1	7	10	12	24	30
60	1.8	4.2	7.3	8.4	13	15	29	36
100	2.9	7	12	14	21	24	48	60
150	—	—	—	—	31	36	73	91
200	—	—	—	—	42	48	97	120
250	—	—	—	—	52	60	120	150
300	—	—	—	—	63	73	145	180
350	—	—	—	—	73	85	170	210
400	—	—	—	—	84	97	195	240

Table 624.52(B)(1)(2) Minimum Ventilation Required in Cubic Feet per Minute (cfm) for Each of the Total Number of Electric Vehicles That Can Be Charged at One Time

Branch-Circuit Ampere Rating	Branch-Circuit Voltage							
	Single-Phase				3-Phase			
	dc. ≥ 50 V	120 V	208 V	240 V or. 120/240 V	208 V or. 208Y/120 V	240 V	480 V or. 480Y/277 V	600 V or. 600Y/347
15	15.4	37	64	74	—	—	—	—
20	20.4	49	85	99	148	171	342	427
30	30.8	74	128	148	222	256	512	641
40	41.3	99	171	197	296	342	683	854
50	51.3	123	214	246	370	427	854	1066
60	61.7	148	256	296	444	512	1025	1281
100	102.5	246	427	493	740	854	1708	2135
150	—	—	—	—	1110	1281	2562	3203
200	—	—	—	—	1480	1708	3416	4270
250	—	—	—	—	1850	2135	4270	5338
300	—	—	—	—	2221	2562	5125	6406
350	—	—	—	—	2591	2989	5979	7473

400	—	—	—	—	2961	3416	6832	8541

(2) Other Values.

For supply voltages and currents other than specified in Table 624.52(B)(1)(1) or Table 624.52(B)(1)(2), the minimum ventilation requirements shall be calculated by means of Equation 624.52(B)(2)a or Equation 624.52(B)(2)b for single-phase ac or dc or Equation 624.52(B)(2)c or Equation 624.52(B)(2)d for 3-phase ac.

$$Ventilation\ single-phase\ ac\ or\ dc\ in\ cubic\ meters\ per\ minute\ \left(\frac{m^3}{min}\right) = \frac{(volts)(amperes)}{1718}$$ **[624.52(B)(2)a]**

$$Ventilation\ single-phase\ ac\ or\ dc\ in\ cubic\ feet\ per\ minute\ (cfm) = \frac{(volts)(amperes)}{48.7}$$ **[624.52(B)(2)b]**

$$Ventilation\ 3-phase\ ac\ or\ dc\ in\ cubic\ meters\ per\ minute\ \left(\frac{m^3}{min}\right) = \frac{(1.732)(volts)(amperes)}{1718}$$ **[624.52(B)(2)c]**

$$Ventilation\ 3-phase\ ac\ or\ dc\ in\ cubic\ feet\ per\ minute\ (cfm) = \frac{(1.732)(volts)(amperes)}{48.7}$$ **[624.52(B)(2)d]**

(3) Engineered Systems.

For equipment ventilation systems designed by persons qualified to perform such calculations as integral parts of total ventilation systems for buildings, minimum ventilation requirements shall be permitted to be determined in accordance with calculations specified in engineering studies.

(4) Supply Circuits.

Supply circuits to mechanical ventilation equipment shall be electrically interlocked with the equipment and remain energized during the entire electric vehicle charging cycle. Equipment receptacles rated at 125 volts, single phase, 15 and 20 amperes shall be switched, with mechanical ventilation systems electrically interlocked through the switch supply power to the receptacles. Equipment supplied from less than 50 volts dc shall be switched with mechanical ventilation systems electrically interlocked through the switch supply power to the equipment.

624.54 Ground-Fault Circuit-Interrupter Protection for Personnel.

All receptacles installed for the connection of ESVSE shall have GFCI protection for personnel.

624.56 Receptacle Enclosures.

All receptacles installed in wet locations for electric vehicle charging shall have enclosures that are weatherproof with attachment plug caps inserted or removed. Outlet box hoods installed for this purpose shall be listed and be identified as extra duty. Other listed products, enclosures, or assemblies providing weatherproof protection that do not use outlet box hoods shall not be required to be marked extra duty.

Part IV. Wireless Power Transfer Equipment

624.101 Grounding.

Primary pad base plates shall be constructed of nonferrous metal and be connected to circuit equipment grounding conductors unless the listed WPTE employs double-insulation systems. Base plates shall be sized to match the size of the primary pad enclosures.

624.102 Installation.

(A) General.

Control pads, if included in WPTE configuration, shall comply with 624.102(B). The primary pad shall comply with 624.102(C).

(B) Control Box.

Control box enclosures shall be suitable for the environment and be mounted at a height not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above grade level for outdoor locations in one of the following forms:

(1) Pedestals

(2) Walls or poles

(3) Buildings or structures

(4) Raised concrete pads

(C) Primary Pads.

Primary pads shall be installed secured to the surface or embedded in the surface of the floor with their tops flush with or below the surface in accordance with the manufacturer's instructions and the following:

(1) If located in an area requiring snow removal, primary pads shall not be located on or above the surface.

Exception: Where installed on private property where snow removal is done manually, primary pads shall be permitted to be on or above the surface.

(2) Primary pad enclosures shall be suitable for the environment and, if located in an area subject to severe climatic conditions (e.g., flooding), suitably rated for those conditions.

(D) Protection of Cords and Cables to Primary Pads.

Output cables to primary pads shall be secured in place over its entire length to restrict movement and to prevent strain at the connection points. If installed in conditions where drive-over could occur, cables shall be provided with supplemental protection.

Where control boxes are not provided, cords or cables supplying power to primary pads shall be secured in place to restrict movement and to prevent strain at the connection points. Where subject to vehicular traffic, supplemental protection shall be provided.

(E) Other Wiring Systems.

Other wiring systems and fittings specifically listed for use on WPTE shall be permitted.

NFPA 70, *National Electrical Code®*

Submitter: Kyle Wiens, iFixit

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-164	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Achim Ginsberg-Klemmt, GismoPower LLC

Certified Amending Motion to Accept Public Comment No. 1225	
CAM No. 70-172	**Recommended Text if Motion Passes:** **Article 100** **Electric Vehicle (EV).** ~~An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles,~~ A vehicle, defined using the Merriam-Webster definition as "a means of carrying or transporting something", unpropelled or primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are electric vehicles having a second source of motive power. (CMP-12) ~~Informational Note: Off-road, self-propelled electric mobile machines, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, and boats are not considered electric vehicles.~~
	Recommended Text if Motion Fails: **Article 100** **Electric Vehicle (EV).** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are electric vehicles having a second source of motive power. (CMP-12) Informational Note: Off-road, self-propelled electric mobile machines, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, and boats are not considered electric vehicles. ***Note: This text is the same as previous edition text. No revisions were recommended during this revision cycle.***

AMENDMENT BALLOT No. 70-172

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-172 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

Article 100
Electric Vehicle (EV).

~~An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles.~~ A vehicle, defined using the Merriam-Webster definition as "a means of carrying or transporting something", unpropelled or primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are electric vehicles having a second source of motive power. (CMP-12)

~~Informational Note: Off-road, self-propelled electric mobile machines, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, and boats are not considered electric vehicles.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-172 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

Article 100
Electric Vehicle (EV).

An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are electric vehicles having a second source of motive power. (CMP-12)

Informational Note: Off-road, self-propelled electric mobile machines, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, and boats are not considered electric vehicles.

NFPA 70, *National Electrical Code®*

Submitter: Matthew Dillon, no affiliation provided

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-173	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Lucas Gutterman, U.S. Public Interest Research Group

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-174	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Alon Doron, EV Seg

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-175	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Achim Ginsberg-Klemmt, Gismo-Power LLC

Certified Amending Motion to Reject Second Revision No. 7853	
CAM No. 70-176	**Recommended Text if Motion Passes:** ~~**625.4 Qualified Persons.**~~ ~~Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons.~~ ~~Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.~~
	Recommended Text if Motion Fails: **625.4 Qualified Persons.** Permanently installed electric vehicle power transfer system equipment shall be installed by qualified persons. Informational Note: See NECA 413-2024, *Standard for Installing and Maintaining Electric Vehicle Supply Equipment (EVSE),* or other ANSI approved installation standards.

NFPA 70, *National Electrical Code®*

Submitter: Alon Doron, EV-Seg

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-177

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

NFPA 70, *National Electrical Code®*

Submitter: Alon Doron, EV-Seg

Certified Amending Motion to Reject Second Revision No. 7875 and any Related First Revisions and First Correlating Revisions	
CAM No. 70-178	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter ~~(GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI)~~ Protection for Personnel.** **~~(A) Cord- and Plug-Connected.~~** **~~(1) 150 Volts or Less to Ground.~~** All receptacles ~~rated 150 volts or less to ground,~~ installed for the connection of electric vehicle charging shall have ~~GFCI~~ ground-fault circuit-interrupter protection for personnel ~~protection~~. **~~(2) Greater than 150 Volts to Ground.~~** ~~All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.~~ **~~(B) Permanently Wired.~~** **~~(1) 150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2) Greater than 150 Volts to Ground.~~** ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.**

	All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

NFPA 70, *National Electrical Code®*
Submitter: Achim Ginsberg-Klemmt

Certified Amending Motion to Reject an Identifiable Part of Second Revision Number No. 7875	
CAM No. 70-179	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) ~~150 Volts or Less to Ground.~~** ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ **~~(2)~~ Greater than 150 Volts to Ground.** All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 ~~to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 ~~to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection*

AMENDMENT BALLOT No. 70-179

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-179 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

(B) Permanently Wired.

(1) ~~150 Volts or Less to Ground.~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~(2)~~ Greater than 150 Volts to Ground.

All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.

Exception No. 1~~ to (B)(1) and (B)(2)~~: Outlets installed to supply dc charging shall not require SPGFCI protection.

Exception No. 2~~ to (B)(1) and (B)(2)~~: Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-179 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel. All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 70, *National Electrical Code®*

Submitter: Achim Ginsberg-Klemmt, GismoPower LLC

Certified Amending Motion to Reject an Identifiable Part of Second Correlating Revision No. 117 and any Relation Portions of First Revisions and First Correlating Revisions

CAM No. 70-180

Recommended Text if Motion Passes:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43 (D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~
4. ~~Be a manual reset type~~
5. ~~Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

Recommended Text if Motion Fails:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(E), as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

(E) Emergency Shutoff.

(1) Emergency Disconnect Devices.

For other than one- and two-family dwellings, all permanently connected EVSE and WPTEshall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:

1. Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment
2. Disconnect power to all EVSE and WPTE within sight of emergency shutoff
3. Be marked “EVSE EMERGENCY DISCONNECT” and “WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED” in accordance with 110.22(A)
4. Be a manual reset type
5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply

(2) Disconnecting Means Serving as Emergency Shutoff.

The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).

AMENDMENT BALLOT No. 70-180

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-180 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.43 Disconnecting Means.

(A) General.

EVSE and WPTE shall be provided with one or more disconnecting means in accordance with 625.43(B) through 625.43(D) ~~(E)~~, as applicable.

(B) Disconnects not Listed for EVSE or WPTE.

Disconnecting means that are not listed for EVSE or WPTE use shall be rated for continuous load or have a nameplate current rating that is 125 percent of the EVSE or WPTE branch circuit rating.

(C) Multifamily Dwellings.

For multifamily dwellings where multiple EVSE or WPTE are each served through individual disconnecting means, a plaque or directory shall be attached to each EVSE or WPTE and its corresponding disconnect clearly identifying which disconnect serves which EVSE or WPTE.

(D) Equipment Disconnects.

For permanently connected EVSE and WPTE, a disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque or directory shall be installed on the equipment denoting the location of the disconnecting means. For cord- and plug-connected EVSE and WPTE, with a rating not exceeding 60 amperes or not exceeding 150 volts to ground, the cord and plug shall be permitted to serve as the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

~~**(E) Emergency Shutoff.**~~

~~**(1) Emergency Disconnect Devices.**~~

~~For other than one- and two-family dwellings, all permanently connected EVSE and WPTE shall be provided with one or more clearly identified emergency disconnect devices or electrical disconnects that meet all of the following:~~

1. ~~Be installed in a readily accessible location not less than 6.0 m (20 ft) nor more than 30.0 m (100 ft) from the equipment and in sight from the equipment~~
2. ~~Disconnect power to all EVSE and WPTE within sight of emergency shutoff~~
3. ~~Be marked "EVSE EMERGENCY DISCONNECT" and "WARNING: ELECTRIC VEHICLE(S) WILL REMAIN ENERGIZED" in accordance with 110.22(A)~~

~~4. Be a manual reset type~~

~~5. Disconnect all ungrounded conductors of the circuits simultaneously from the source of supply~~

~~**(2) Disconnecting Means Serving as Emergency Shutoff.**~~

~~The disconnecting means required in accordance with 625.43(D) shall be permitted to serve as the emergency disconnect if it complies with all the requirements of 625.43(E).~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-180 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.43 Disconnecting Means.

For EVSE and WPTE rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. If the disconnecting means is installed remote from the equipment, a plaque shall be installed on the equipment denoting the location of the disconnecting means. The disconnecting means shall be lockable open in accordance with 110.25.

NFPA 70, *National Electrical Code®*

Submitter: Bryce Nesbitt, Obviously Technical Inspections

Certified Amending Motion to Accept Public Comment No. 1680

CAM No. 70-181

Recommended Text if Motion Passes:

625.44(A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts or 250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(2) A ~~nonlocking,~~ 3-pole, 4-wire grounding-type receptacle outlet rated at 125/250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 277 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(4) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

(5) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.

625.44(B) Hand Fastened Equipment.

Equipment that is hand fastened shall be connected to the premises wiring system by one of the following methods:

(1) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(2) A ~~nonlocking,~~ 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A ~~nonlocking,~~ 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(4) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated 277 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(5) A ~~nonlocking,~~ 3-pole, 4-wire grounding-type receptacle outlet rated at 120/208 volts, three phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(6) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

(7) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.

Recommended Text if Motion Fails:

625.44 (A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts or 250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 125/250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 277 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

(5) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three-phase 60 amperes or 100 amperes

(B) Hand Fastened Equipment.

Equipment that is hand fastened shall be connected to the premises wiring system by one of the following methods:

(1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30 or 50 amperes listed for EVSE and WPTE use

(2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 277 volts, single phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(5) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 120/208 volts, three phase in accordance with one of the following:

a. 15 or 20 amperes

b. 30, 50, or 60 amperes listed for EVSE and WPTE use

(6) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

(7) A locking, pin-and-sleeve, 3-pole, 4-wire grounding type receptacle outlet rated 277/480 volts, three phase 60 amperes or 100 amperes

AMENDMENT BALLOT No. 70-181

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-181 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.44(A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

(1) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts or 250 volts, single phase in accordance with one of the following:
   a. 15 or 20 amperes
   ~~b.~~ 30 or 50 amperes ~~listed and marked for EVSE and WPTE use~~

(2) A ~~nonlocking,~~ 3-pole, 4-wire grounding-type receptacle outlet rated at 125/250 volts, single phase in accordance with one of the following:
   a. 15 or 20 amperes
   b. 30, 50, or 60 amperes ~~listed and marked for EVSE and WPTE use~~

(3) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 277 volts, single phase in accordance with one of the following:
   a. 15 or 20 amperes
   b. 30 or 50 amperes ~~listed and marked for EVSE and WPTE use~~

(4) A ~~locking, pin-and-sleeve,~~ 3-pole, 4-wire grounding type receptacle outlet rated ~~277/~~ at 480 volts, three phase ~~60 or 100 amperes~~ in accordance with one of the following:
   a. 30, 60 or 100 amperes.

(5) A ~~nonlocking,~~ 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

625.44(B) ~~Hand Fastened Equipment.~~ Listed Connections

~~Equipment that is hand fastened shall be connected to the premises wiring system by one of the following methods:~~

(1) All plugs, connectors, and receptacles shall be listed for the appropriate voltage and current of the portable charging system. ~~A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase in accordance with one of the following:~~
   ~~a. 15 or 20 amperes~~
   ~~b. 30 or 50 amperes listed and marked for EVSE and WPTE use~~

~~(2)~~ Connectors shall be of the locking or nonlocking type. ~~A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed and marked for EVSE and WPTE use~~

~~(3) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed and marked for EVSE and WPTE use~~

~~(4) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 277 volts, single phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed and marked for EVSE and WPTE use~~

~~(5) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated at 120/208 volts, three phase in accordance with one of the following:~~

~~a. 15 or 20 amperes~~

~~b. 30, 50, or 60 amperes listed and marked for EVSE and WPTE use~~

~~(6) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes~~

~~(7) A locking, pin-and-sleeve, 3-pole, 4-wire grounding-type receptacle outlet rated 277/480 volts, three phase 60 or 100 amperes.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-181 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.44(A) Portable Equipment.

Portable equipment shall be connected to the premises wiring system by one or more of the following methods:

1. A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts, single phase, 15 or 20 amperes
2. A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 250 volts, single phase, 15 or 20 amperes
3. A nonlocking, 2-pole, 3-wire or 3-pole, 4-wire grounding-type receptacle outlet rated at 250 volts, single phase, 30 or 50 amperes, or 125/250 volts, single-phase, 30, 50, or 60 amperes
4. A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

625.44(B) Fastened-in-Place Equipment.

Equipment that is fastened-in-place shall be connected to the premises wiring system by one of the following methods:

1. A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volts or 250 volts, single phase, up to 50 amperes
2. A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volts, three phase, up to 50 amperes
3. A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 125/250 volts, single phase, 30, 50, or 60 amperes
4. A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 60 volts dc maximum, 15 or 20 amperes

NFPA 70, *National Electrical Code®*

Submitter: Bryan Nesbitt, Obviously Technical Inspections

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 7875	
CAM No. 70-182	**Recommended Text if Motion Passes:** **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. ~~**(B) Permanently Wired.**~~ ~~**(1) 150 Volts or Less to Ground.**~~ ~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~ ~~**(2) Greater than 150 Volts to Ground.**~~ ~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~ ~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~ ~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*~~
	Recommended Text if Motion Fails: **625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.** **(A) Cord- and Plug-Connected.** **(1) 150 Volts or Less to Ground.** All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI for personnel protection. **(2) Greater than 150 Volts to Ground.** All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. **(B) Permanently Wired.** **(1) 150 Volts or Less to Ground.** All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.

	(2) Greater than 150 Volts to Ground. All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029. *Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.* *Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection.*

AMENDMENT BALLOT No. 70-182

Code Making Panel 12

NFPA 70, *National Electrical Code*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 70-182 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

625.54 Ground-Fault Circuit-Interrupter (GFCI) or Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection for Personnel.

(A) Cord- and Plug-Connected.

(1) 150 Volts or Less to Ground.

All receptacles rated 150 volts or less to ground, installed for the connection of electric vehicle charging shall have GFCI protection for personnel protection.

(2) Greater than 150 Volts to Ground.

All receptacles rated greater than 150 volts to ground shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection.

~~**(B) Permanently Wired.**~~

~~**(1) 150 Volts or Less to Ground.**~~

~~All outlets rated 150 volts or less to ground, installed for the connection of electric vehicle charging, shall have GFCI for personnel protection.~~

~~**(2) Greater than 150 Volts to Ground.**~~

~~All outlets installed for permanently wired electric vehicle charging, shall have SPGFCI with a ground-fault trip current not exceeding 20 mA for personnel protection. This requirement shall become effective January 1, 2029.~~

~~*Exception No. 1 to (B)(1) and (B)(2): Outlets installed to supply dc charging shall not require SPGFCI protection.*~~

~~*Exception No. 2 to (B)(1) and (B)(2): Outlets installed for electric vehicle bidirectional charging shall not require SPGFCI protection..*~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 70-182 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

625.54 Ground-Fault Circuit-Interrupter Protection for Personnel.

All receptacles installed for the connection of electric vehicle charging shall have ground-fault circuit-interrupter protection for personnel.

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*
Submitter: Marcelo Hirschler, GBH International

Certified Amending Motion to Reject Second Revision No. 22

CAM No. 130-3

Recommended Text if Motion Passes:

8.4.1*

The test procedures and minimum performance for materials and assemblies shall be as detailed in Table 8.4.1.

Table 8.4.1 Fire Test Procedures and Performance Criteria for Materials and Assemblies

Category	Function of Material	Test Method	Performance Criteria
Cushioning	All individual flexible cushioning materials used in seat cushions, mattresses, mattress pads, armrests, crash pads, and grab rail padding[a–e]	ASTM D3675≤	$I_s \leq 25$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 175
Fabrics	Seat upholstery, mattress ticking and covers, curtains, draperies, window shades, and woven seat cushion suspensions[a–c,f–h]	14 CFR 25, Appendix F, Part I (vertical test)	Flame time ≤ 10 sec Burn length ≤ 6 in.
		ASTM E662	D_s (4.0) ≤ 200
Other vehicle components	Seat and mattress frames, wall and ceiling lining and panels, seat and toilet shrouds, toilet seats, trays and other tables, partitions, shelves, opaque windscreens, combustible signage, end caps, roof housings, articulation bellows, exterior shells, nonmetallic skirts, battery case material, and component boxes and covers[a,b,i–k]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Thermal and acoustical insulation[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	HVAC ducting[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	Floor covering[b,k,l]	ASTM E648	CRF ≥ 5 kW/m^2
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200

	Light diffusers, windows, and transparent plastic windscreens [b,i,q]	~~See 8.4.1.17~~ ASTM E162	~~See 8.4.1.17~~ $I_s \leq 100$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Adhesives and sealants[a,b,p]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100D_s
			(4.0) ≤ 200
Elastomers[a,b,i,j]	Window gaskets, door nosings, intercar diaphragms, seat cushion suspension diaphragms, and roof mats	ASTM C1166	Flame propagation ≤ 100 mm (4 in.)
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
Wire and cable	All	See 8.6.7.1.1 through 8.6.7.1.3.	See 8.6.7.1.1 through 8.6.7.1.3.
Structural components[m]	Flooring,[n] other[o]	ASTM E119	Pass

[a]See 8.4.1.1.
[b]See 8.4.1.2.
[c]See 8.4.1.3.
[d]See 8.4.1.4.
[e]See 8.4.1.5.
[f]See 8.4.1.6.
[g]See 8.4.1.7.
[h]See 8.4.1.8.
[i]See 8.4.1.9.
[j]See 8.4.1.10.
[k]See 8.4.1.11.
[l]See 8.4.1.12.
[m]See 8.4.1.13.
[n]See 8.4.1.14.
[o]See 8.4.1.15.
[p]See 8.4.1.16.
[q]See 8.4.1.17.

Recommended Text if Motion Fails:

8.4.1*

The test procedures and minimum performance for materials and assemblies shall be as detailed in Table 8.4.1.

Table 8.4.1 Fire Test Procedures and Performance Criteria for Materials and Assemblies

Category	Function of Material	Test Method	Performance Criteria
Cushioning	All individual flexible cushioning materials used in seat cushions, mattresses, mattress pads, armrests, crash pads, and grab rail padding[a–e]	ASTM D3675≤	$I_s \leq 25$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 175
Fabrics	Seat upholstery, mattress ticking and covers, curtains, draperies, window shades, and woven seat cushion suspensions[a–c,f–h]	14 CFR 25, Appendix F, Part I (vertical test)	Flame time ≤ 10 sec Burn length ≤ 6 in.
		ASTM E662	D_s (4.0) ≤ 200
Other vehicle components	Seat and mattress frames, wall and ceiling lining and panels, seat and toilet shrouds, toilet seats, trays and other tables, partitions, shelves, opaque windscreens, combustible signage, end caps, roof housings, articulation bellows, exterior shells, nonmetallic skirts, battery case material, and component boxes and covers[a,b,i–k]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Thermal and acoustical insulation[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	HVAC ducting[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	Floor covering[b,k,l]	ASTM E648	CRF ≥ 5 kW/m^2
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Light diffusers, windows, and transparent plastic windscreens[b,i, q]	See 8.4.1.17	See 8.4.1.17
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Adhesives and sealants[a,b,p]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100D_s
			(4.0) ≤ 200

Elastomers[a,b,i,j]	Window gaskets, door nosings, intercar diaphragms, seat cushion suspension diaphragms, and roof mats	ASTM C1166	Flame propagation ≤ 100 mm (4 in.)
		ASTM E662	D_s (1.5) ≤ 100 D_s (4.0) ≤ 200
Wire and cable	All	See 8.6.7.1.1.1 through 8.6.7.1.3.	See 8.6.7.1.1.1 through 8.6.7.1.3.
Structural components[m]	Flooring,[n] other[o]	ASTM E119	Pass

[a]See 8.4.1.1.
[b]See 8.4.1.2.
[c]See 8.4.1.3.
[d]See 8.4.1.4.
[e]See 8.4.1.5.
[f]See 8.4.1.6.
[g]See 8.4.1.7.
[h]See 8.4.1.8.
[i]See 8.4.1.9.
[j]See 8.4.1.10.
[k]See 8.4.1.11.
[l]See 8.4.1.12.
[m]See 8.4.1.13.
[n]See 8.4.1.14.
[o]See 8.4.1.15.
[p]See 8.4.1.16.
[q]See 8.4.1.17.

AMENDMENT BALLOT No. 130-3

Technical Committee on Fixed Guideway Transit and Passenger Rail Systems

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 130-3 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

8.4.1*

The test procedures and minimum performance for materials and assemblies shall be as detailed in Table 8.4.1.

Table 8.4.1 Fire Test Procedures and Performance Criteria for Materials and Assemblies

Category	Function of Material	Test Method	Performance Criteria
Cushioning	All individual flexible cushioning materials used in seat cushions, mattresses, mattress pads, armrests, crash pads, and grab rail padding[a–e]	ASTM D3675≤	$I_s \leq 25$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 175
Fabrics	Seat upholstery, mattress ticking and covers, curtains, draperies, window shades, and woven seat cushion suspensions[a–c,f–h]	14 CFR 25, Appendix F, Part I (vertical test)	Flame time ≤ 10 sec Burn length ≤ 6 in.
		ASTM E662	D_s (4.0) ≤ 200

Category	Function of Material	Test Method	Performance Criteria
Other vehicle components	Seat and mattress frames, wall and ceiling lining and panels, seat and toilet shrouds, toilet seats, trays and other tables, partitions, shelves, opaque windscreens, combustible signage, end caps, roof housings, articulation bellows, exterior shells, nonmetallic skirts, battery case material, and component boxes and covers[a,b,i–k]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Thermal and acoustical insulation[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	HVAC ducting[a,b]	ASTM E162	$I_s \leq 25$
		ASTM E662	D_s (4.0) ≤ 100
	Floor covering[b,k,l]	ASTM E648	CRF ≥ 5 kW/m^2
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Light diffusers, windows, and transparent plastic windscreens [b,i, q]	~~See 8.4.1.17~~ ASTM E162	~~See 8.4.1.17~~ $I_s \leq 100$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Adhesives and sealants[a,b,p]	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100D_s

Category	Function of Material	Test Method	Performance Criteria
			(4.0) ≤ 200
Elastomers[a,b,i,j]	Window gaskets, door nosings, intercar diaphragms, seat cushion suspension diaphragms, and roof mats	ASTM C1166	Flame propagation ≤ 100 mm (4 in.)
		ASTM E662	D_s (1.5) ≤ 100 D_s (4.0) ≤ 200
Wire and cable	All	See 8.6.7.1.1.1 through 8.6.7.1.3.	See 8.6.7.1.1.1 through 8.6.7.1.3.
Structural components[m]	Flooring,[n] other[o]	ASTM E119	Pass

[a]See 8.4.1.1.

[b]See 8.4.1.2.

[c]See 8.4.1.3.

[d]See 8.4.1.4.

[e]See 8.4.1.5.

[f]See 8.4.1.6.

[g]See 8.4.1.7.

[h]See 8.4.1.8.

[i]See 8.4.1.9.

[j]See 8.4.1.10.

[k]See 8.4.1.11.

[l]See 8.4.1.12.

[m]See 8.4.1.13.

[n]See 8.4.1.14.

[o]See 8.4.1.15.

[p]See 8.4.1.16.

[q]See 8.4.1.17.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 130-3 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

8.4.1*

The test procedures and minimum performance for materials and assemblies shall be as detailed in Table 8.4.1.

Table 8.4.1 Fire Test Procedures and Performance Criteria for Materials and Assemblies

Category	Function of Material	Test Method	Performance Criteria
Cushioning	All individual flexible cushioning materials used in seat cushions, mattresses, mattress pads, armrests, crash pads, and grab rail padding[a–e]	ASTM D3675≤	$I_s \leq 25$
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 175
Fabrics	Seat upholstery, mattress ticking and covers, curtains, draperies, window shades, and woven seat cushion suspensions[a–c,f–h]	14 CFR 25, Appendix F, Part I (vertical test)	Flame time ≤ 10 sec Burn length ≤ 6 in.
		ASTM E662	D_s (4.0) ≤ 200
Other vehicle components	Seat and mattress frames, wall and ceiling lining and panels, seat and toilet shrouds, toilet seats, trays and other tables, partitions, shelves, opaque windscreens, combustible signage, end caps, roof housings, articulation bellows, exterior shells, nonmetallic	ASTM E162	$I_s \leq 35$
		ASTM E662	D_s (1.5) ≤ 100

Category	Function of Material	Test Method	Performance Criteria
	skirts, battery case material, and component boxes and covers[a,b,i–k]		D_s (4.0) ≤ 200
	Thermal and acoustical insulation[a,b]	ASTM E162	I_s≤ 25
		ASTM E662	D_s (4.0) ≤ 100
	HVAC ducting[a,b]	ASTM E162	I_s≤ 25
		ASTM E662	D_s (4.0) ≤ 100
	Floor covering[b,k,l]	ASTM E648	CRF ≥ 5 kW/m^2
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Light diffusers, windows, and transparent plastic windscreens[a,b,i]	ASTM E162	I_s≤ 100
		ASTM E662	D_s (1.5) ≤ 100
			D_s (4.0) ≤ 200
	Adhesives and sealants[a,b,p]	ASTM E162	I_s≤ 35
		ASTM E662	D_s (1.5) ≤ 100D_s
			(4.0) ≤ 200
Elastomers[a,b,i,j]	Window gaskets, door nosings, intercar diaphragms, seat cushion suspension diaphragms, and roof mats	ASTM C1166	Flame propagation

Category	Function of Material	Test Method	Performance Criteria
			≤ 100 mm (4 in.)
		ASTM E662	D_s (1.5) ≤ 100 D_s (4.0) ≤ 200
Wire and cable	All	See 8.6.7.1.1.1 through 8.6.7.1.3.	See 8.6.7.1.1.1 through 8.6.7.1.3.
Structural components[m]	Flooring,[n] other[o]	ASTM E119	Pass

[a]See 8.4.1.1.

[b]See 8.4.1.2.

[c]See 8.4.1.3.

[d]See 8.4.1.4.

[e]See 8.4.1.5.

[f]See 8.4.1.6.

[g]See 8.4.1.7.

[h]See 8.4.1.8.

[i]See 8.4.1.9.

[j]See 8.4.1.10.

[k]See 8.4.1.11.

[l]See 8.4.1.12.

[m]See 8.4.1.13.

[n]See 8.4.1.14.

[o]See 8.4.1.15.

[p]See 8.4.1.16.

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*
Submitter: Marcelo Hirschler, GBH International

Certified Amending Motion to Reject Second Revision No. 18	
CAM No. 130-4	**Recommended Text if Motion Passes:** **8.4.1.17** Light diffusers, windows, and transparent plastic windscreens shall comply with a valid radiant panel index ~~meet one of the following test criteria~~: ~~(1) When tested~~ in accordance with ASTM E162, *Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source*~~, the material shall exhibit a valid radiant panel index (Is) of less than 100 with no rapid running or dripping of flaming material as defined in ASTM E162.~~ ~~(2) When testing in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, at use thickness in the horizontal orientation at an incident radiant heat flux of 50 kW/m^2 the material shall exhibit a peak heat release rate of ≤ 500 kW/m^2, and an 180 second average heat release rate of ≤ 300 kW/m^2.~~
	Recommended Text if Motion Fails: **8.4.1.17** Light diffusers, windows, and transparent plastic windscreens shall meet one of the following test criteria: (1) When tested in accordance with ASTM E162, *Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source*, the material shall exhibit a valid radiant panel index (Is) of less than 100 with no rapid running or dripping of flaming material as defined in ASTM E162. (2) When testing in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, at use thickness in the horizontal orientation at an incident radiant heat flux of 50 kW/m^2 the material shall exhibit a peak heat release rate of ≤ 500 kW/m^2, and an 180 second average heat release rate of ≤ 300 kW/m^2.

AMENDMENT BALLOT No. 130-4

Technical Committee on Fixed Guideway Transit and Passenger Rail Systems

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 130-4 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

8.4.1.17

Light diffusers, windows, and transparent plastic windscreens shall comply with a valid radiant panel index ~~meet one of the following test criteria~~:

(1) ~~When tested~~ in accordance with ASTM E162, *Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source*~~, the material shall exhibit a valid radiant panel index (Is) of less than 100 with no rapid running or dripping of flaming material as defined in ASTM E162.~~

~~When testing in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, at use thickness in the horizontal orientation at an incident radiant heat flux of 50 kW/m^2 the material shall exhibit a peak heat release rate of ≤ 500 kW/m^2, and an 180 second average heat release rate of ≤ 300 kW/m^2.~~

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 130-4 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*
Submitter: Marcelo Hirschler, GBH International

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 1	
CAM No. 130-5	**Recommended Text if Motion Passes:** **A.5.2.4** The intent is to permit an alternative approach to determining exposure protection requirements between a station or a train in a station and an adjacent building. This analysis would be applied to aboveground stations. For aboveground platforms, the main exposing fire hazard is a train in the station at the platform. The requirements for materials used in construction and interior finish materials, compartmentation, and fire protection systems in ancillary areas limit the likelihood of fire spread in stations. In such instances, the exposure from the station building would be from a train fire to the adjacent building, property line or other, based on ignition of materials relative to the fire source. There may be configurations where station elements, such as stairs landing at the sidewalk with no entrance enclosure, require no protection as there is no exposing fire hazard to the adjacent property. A hazard assessment should be conducted on a case by case basis to determine the appropriate fire scenarios.
	Recommended Text if Motion Fails: **Note: No text recommended at Second Draft.*

AMENDMENT BALLOT No. 130-5

Technical Committee on Fixed Guideway Transit and Passenger Rail Systems

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*

June 19-20, 2021

IF YOU AGREE TO SUPPORT AMENDMENT 130-5 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

A.5.2.4

The intent is to permit an alternative approach to determining exposure protection requirements between a station or a train in a station and an adjacent building. This analysis would be applied to aboveground stations.

For aboveground platforms, the main exposing fire hazard is a train in the station at the platform. The requirements for materials used in construction and interior finish materials, compartmentation, and fire protection systems in ancillary areas limit the likelihood of fire spread in stations. In such instances, the exposure from the station building would be from a train fire to the adjacent building, property line or other, based on ignition of materials relative to the fire source.

There may be configurations where station elements, such as stairs landing at the sidewalk with no entrance enclosure, require no protection as there is no exposing fire hazard to the adjacent property.

A hazard assessment should be conducted on a case by case basis to determine the appropriate fire scenarios.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 130-5 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text.

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*
Submitter: Marcelo Hirschler, GBH International

Certified Amending Motion to Accept Public Comment No. 6	
CAM No. 130-6	**Recommended Text if Motion Passes:** **5.2.4* Fire Separation.** Provisions for exposure protection between either a station or a train in a station and an adjacent building shall be determined based on an engineering analysis that considers site specific fire hazards.
	Recommended Text if Motion Fails: **Note: No text recommended at Second Draft.*

AMENDMENT BALLOT No. 130-6

Technical Committee on Fixed Guideway Transit and Passenger Rail Systems

NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*

June 19-20, 2021

IF YOU AGREE TO SUPPORT AMENDMENT 130-6 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

5.2.4* Fire Separation.

Provisions for exposure protection between either a station or a train in a station and an adjacent building shall be determined based on an engineering analysis that considers site specific fire hazards.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 130-6 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text.

NFPA 855, ***Installation of Stationary Energy Storage Systems***
Submitter: William Koffel, Koffel Associates, Inc.

Certified Amending Motion to Reject Second Revision No. 20

CAM No. 855-12

Recommended Text if Motion Passes:

15.13.1*

~~If~~ Where required by 15.3.1 ~~or 15.4.1~~, fire and explosion testing shall be conducted on a representative ESS in accordance with UL 9540A or equivalent test standards ~~and large-scale fire testing to collect data for gas production at cell level, thermal runaway propagation at a module level, and thermal runaway propagation potential between ESS units~~.

A.15.13.1

A UL 9540A or equivalent test should evaluate the fire characteristics of the composition of gases generated at the cell, module, and unit and installation levels for ESSs undergoing thermal runaways, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during fire vent testing at the unit-level and installation-level testing should document whether the fire event propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level. The fire and explosion testing data is intended to be used by manufacturers, system designers, and AHJs to determine if the required separation distance for an ESS installation can be reduced.

~~Residential large-scale fire testing is intended to supplement the findings of the UL 9540A test protocol for permissible performance-based reductions such as unit-to-unit and unit-to-opening spacing to less than 3 ft (0.9 m). The test should mimic the unit level UL 9540A test with ignition of the flammable off-gassing. The test should focus on the ignition of vent gasses and confirmation that target unit internal module temperatures do not exceed cell vent temperatures.~~

~~Manufacturer installation instructions for ESSs listed to UL 9540 based on fire and explosion testing on a representative ESS in accordance with UL 9540 should be provided to the fire code official. See UL 9540 for information regarding manufacturer's installation instructions.~~

Recommended Text if Motion Fails:

15.13.1*

If required by 15.3.1 or 15.4.1, fire and explosion testing shall be conducted on a representative ESS in accordance with UL 9540A and large-scale fire testing to collect data for gas production at cell level, thermal runaway propagation at a module level, and thermal runaway propagation potential between ESS units.

A.15.13.1

A UL 9540A or equivalent test should evaluate the fire characteristics of the composition of gases generated at the cell, module, and unit and installation levels for ESSs undergoing thermal runaways, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during fire vent testing at the unit-level and installation-level testing should document whether the fire event propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level. The fire and explosion testing data is intended to be used by manufacturers, system designers, and AHJs to determine if the required separation distance for an ESS installation can be reduced.

Residential large-scale fire testing is intended to supplement the findings of the UL 9540A test protocol for permissible performance-based reductions such as unit-to-unit and unit-to-opening spacing to less than 3 ft (0.9 m). The test should mimic the unit level UL 9540A test with ignition of the flammable off-gassing. The test should focus on the ignition of vent gasses and confirmation that target unit internal module temperatures do not exceed cell vent temperatures.

	Manufacturer installation instructions for ESSs listed to UL 9540 based on fire and explosion testing on a representative ESS in accordance with UL 9540 should be provided to the fire code official. See UL 9540 for information regarding manufacturer’s installation instructions.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter:

Certified Amending Motion to Accept an Identifiable Part of Public Comment No. 139	
CAM No. 855-15	**Recommended Text if Motion Passes:** **4.9.4.1*** The automatic fire control and suppression systems shall comply with the following standards, or their equivalent-unless modified in Chapters 9 through 17: (1) NFPA 13 (2) NFPA 12 (3) NFPA 15 (4) NFPA 750 (5) NFPA 770 (6) NFPA 2001 (7) NFPA 2010 ***Note: This text was moved from Section 4.9.3.2 to 4.9.4.1 as part of Second Draft Revisions.*
	Recommended Text if Motion Fails: **4.9.4.1*** Automatic fire control and suppression systems shall comply with the following standards, or their equivalent, unless modified in Chapters 9 through 17: (1) NFPA 13 (2) NFPA 15 (3) NFPA 750 (4) NFPA 770

AMENDMENT BALLOT No. 855-15

Technical Committee on Energy Storage Systems

NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 855-15 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

4.9.4.1*

The automatic fire control and suppression systems shall comply with the following standards, or their equivalent, unless modified in Chapters 9 through 17:

(1) NFPA 13
(2) NFPA 12
(3) NFPA 15
(4) NFPA 750
(5) NFPA 770
(6) NFPA 2001
(7) NFPA 2010

***Note: This text was moved from Section 4.9.3.2 to 4.9.4.1 as part of Second Draft Revisions.*

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 855-15 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

4.9.3.2*

The automatic fire control and suppression systems shall comply with the following standards, or their equivalent, as appropriate:

(1) NFPA 12

(2) NFPA 15

(3) NFPA 750

(4) NFPA 770

(5) NFPA 2001

(6) NFPA 2010

Note: If ballot results to returning to previous edition text, this section will be editorially renumbered 4.9.4.1 to align with Second Draft recommendations of moving this text.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Craig Nixon, FirePro

Certified Amending Motion to Reject Second Revision No. 41 and any related portions of First Revisions and First Correlating Revisions

CAM No. 855-21

Recommended Text if Motion Passes:

4.9.4.1*

The automatic ~~Automatic~~ fire control and suppression systems shall comply with the following standards, or their equivalent, as appropriate ~~unless modified in Chapters 9 through 17~~:

(1) ~~NFPA 13~~ NFPA 12
(2) NFPA 15
(3) NFPA 750
(4) NFPA 770
(5) NFPA 2001
(6) NFPA 2010

A.4.9.4.1

Gaseous Agents. Gaseous agent fire suppression systems can be used to protect ESS fires in either of the following two ways:

(1) Total flooding systems are used where there is a permanent enclosure around the fire hazard that is adequate to enable the design concentration to be built up and maintained for the time required to ensure the complete and permanent extinguishment of a fire for the specific combustible materials involved. For total flooding systems, potential leakage sources should be included in the gaseous agent design quantities, which should include leakage through ventilation dampers. Usually, ventilation dampers are either gravity actuated (i.e., close when the ventilation fans automatically shut down upon gaseous agent discharge) or pressure actuated (i.e., close by means of counterweight and a pressure-operated latch that is activated by the gaseous agent). Leakage from the interface between the enclosure walls and the foundation should also be taken into consideration. For ESS enclosures where the normal temperature of the enclosure exceeds 200°F (93°C) or is below 0°F (−18°C), gaseous agent levels should be adjusted as required by the appropriate NFPA standard or the manufacturer's instruction manual.

(2) Local application systems are used for the extinguishment of surface fires of combustible gases, liquids, or solids where the fire hazard is not enclosed or where the enclosure does not conform to the requirements for a total flooding system. For local application systems, it is imperative that the entire fire hazard be protected. The hazard area should include all areas that are subject to spillage, leakage, splashing, condensation, and so forth and are of combustible materials that might extend a fire outside the protected area or lead a fire into the protected area. This type of hazard could necessitate dikes, drains, or trenches to contain any combustible material leakage. When multiple ESS equipment fire hazards are in an area such that they are interposing, provisions should be made to ensure that the hazards can be protected simultaneously, which could involve subdividing the hazards into sections and providing independent protection to each section.

See G.6.1.4 for more information on the use of gaseous/clean agent fire suppression with LIB-based ESS.

Water Mist. Water mist fire suppression systems need to be designed specifically for use with the size and configuration of the specific ESS installation or enclosure being protected. Currently, there is no generic design method recognized for water mist systems. System features such as nozzle spacing, flow rate, drop size distribution, cone angle, and other characteristics need to be determined for each manufacturer's system through fire and explosion testing in accordance with Section 9.2 to obtain a listing for each specific application and must be designed, installed, and tested in accordance with NFPA 750.

See G.6.1.3 for more information on the use of water mist systems with LIB-based ESSs.

4.9.4.2*

Other automatic fire control and suppression systems shall be permitted based on reports issued as a result of ~~large-scale~~ fire and explosion testing in accordance with Section 9.2.

A.4.9.4.2

UL 9540A Installation Level Test, Method 2, ~~can~~ provides the data needed to determine if other fixed fire control and suppression systems are suitable for the application. ~~Additionally, large-scale fire testing or equivalent~~ Equivalent test standards, as permitted in Section 9.2, can provide comparable data.

(***Note: Multiple sections within this text were moved from former locations as part of Second Draft Revisions; the appropriate numbering will be editorially cross-checked for accuracy and Manual of Style compliance once all Motion results are finalized)***

Recommended Text if Motion Fails:

4.9.4.1*

Automatic fire control and suppression systems shall comply with the following standards, or their equivalent, unless modified in Chapters 9 through 17:

(1) NFPA 13
(2) NFPA 15
(3) NFPA 750
(4) NFPA 770

A.4.9.4.1

Water mist fire suppression systems need to be designed specifically for use with the size and configuration of the specific ESS installation or enclosure being protected. Currently, there is no generic design method recognized for water mist systems. System features such as nozzle spacing, flow rate, drop size distribution, cone angle, and other characteristics need to be determined for each manufacturer's system through fire and explosion testing in accordance with Section 9.2 to obtain a listing for each specific application and must be designed, installed, and tested in accordance with NFPA 750.

See G.6.1.3 for more information on the use of water mist systems with LIB-based ESSs.

4.9.4.2*

Other automatic fire control and suppression systems shall be permitted based on reports issued as a result of large-scale fire and explosion testing in accordance with Section 9.2.

A.4.9.4.2

UL 9540A Installation Level Test, Method 2, can provide data needed to determine if other fixed fire control and suppression systems are suitable for the application. Additionally, large-scale fire testing or equivalent test standards, as permitted in Section 9.2, can provide comparable data.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Jody Leber, CSA Group

Certified Amending Motion to Reject Second Revision No. 78	
CAM No. 855-24	**Recommended Text if Motion Passes:** ~~**G.11 Guidance on Implementing a Large-Scale Fire Test (LSFT).**~~ ~~**G.11.1 Intentional Ignition of Vent Gases.**~~ ~~**G.11.1.1**~~ ~~Ignition sources are included because existing technologies cannot make a battery energy storage system intrinsically safe because battery failure can generate its own ignition sources. Building codes and ESS installation codes do not require intrinsically safe electrical installation in the remainder of the electrical components in the BESS (e.g., switches, and so on).~~ ~~**G.11.1.2**~~ ~~Intentional ignition of the vent gases informs the degree of thermal runaway propagation hazard presented by the released flammable gases and the development of a fire protection strategy. The ignition source should be of sufficient magnitude, such as generated by a spark igniter, glow plug, or pilot flame located near the origin of the vented gases but outside of the module of origin, to cause prompt ignition of the flammable gases. External ignition in this manner is not intended to address deflagration mitigation as required in 9.2.1.4.~~ ~~**G.11.2 Scope and Intent of Large-Scale Fire Test (LSFT).**~~ ~~**G.11.2.1**~~ ~~LSFT is intended to develop data to characterize the fire performance hazard of battery energy storage systems for scenarios originating from battery cells and propagating to additional cells susceptible to thermal runaway.~~ ~~**G.11.2.2**~~ ~~This test covers testing of a battery energy storage system installation by initiating a developed fire condition within the unit of origin, involving, but not limited to, batteries, and observing the effects on surrounding exposed surfaces that can lead to involvement of surrounding combustibles.~~ ~~**G.11.2.3**~~ ~~The test method intends to capture the peak thermal stress from a battery energy storage system procedure, such that it can represent many foreseeable failure conditions beyond a specific initiation scenario. The foreseeable failure conditions might include cell failures and additional failure scenarios outside the battery cells. Only protection systems installed in accordance with applicable codes and standards are allowed for inclusion in this LSFT method. Protection systems or components installed without applicable codes and standards are allowed for inclusion in the UL 9540A test method.~~ ~~**G.11.3 LSFT Objective.**~~ ~~**G.11.3.1**~~ ~~The objective of the test method is to evaluate the thermal exposure from a developed fire within a battery energy storage system unit, including nonbattery components, to determine propagation/ignition risk to adjacent units or exposures. The test setup should reflect the final installed configuration of BESS, ancillary equipment, and any immediate surrounding enclosure or buildings.~~ ~~**G.11.3.1.1**~~ ~~Where accumulation of flammable vent gases might occur, this test method evaluates the developed fire scenario after any potential ignition of the vent gases, including the operation of any mitigation devices, such as deflagration panels.~~

~~**G.11.3.1.2**~~

~~The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin.~~

~~**G.11.3.1.3**~~

~~Only fire protection systems designed and installed in accordance with applicable product and installation standards and meeting applicable code requirements should be used.~~

~~**G.11.3.2**~~

~~Tests conducted according to this test method should generate quantitative data to measure thermal exposure to adjacent units or exposures.~~

~~**G.11.3.3**~~

~~This test method is not intended to evaluate the effectiveness of systems designed to protect against the accumulation of flammable gas, deflagration mitigation systems, or the reliability of safety systems.~~

~~**G.11.3.4**~~

~~This test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin, but thermal runaway mitigation devices and strategies can be incorporated in all adjacent enclosures.~~

~~**G.11.3.5**~~

~~Section G.11.3 recommendations do not cover battery energy storage systems intended for residential use.~~

~~**G.11.4 LSFT Evaluations.**~~

~~LSFT should include the following evaluations:~~

1. ~~Performance criteria [BESS and BESS equipment (e.g., inverters, combustible wire insulation)], including the following:~~
   - ~~(a) Fire and damage impact on critical safety systems.~~
   - ~~(b) Survivability of the communication pathways.~~
   - ~~(c) Proposed spacing between finished product configuration of BESS for outdoor and indoor applications.~~
   - ~~(d) Fire Impingement, ignition, and damage to exposed surfaces or that lead to thermal runaway propagation, including the following:~~
     - ~~i. Evaluate combustibles – "Involve"~~
     - ~~ii. Evaluate noncombustibles – "Effect"~~
2. ~~Exposure to BESS (batteries), including the following:~~
   - ~~(a) Adjacent enclosures should all be partially populated (on the sides of the exposure closest to the DUT).~~
   - ~~(b) The surface temperature of modules within the BESS units adjacent to the initiating BESS unit should not exceed the temperature at which thermally initiated cell venting occurs according to UL 9540A cell level testing.~~
   - ~~(c) Module temperatures measured by the BMS in target enclosures should not be used for this evaluation.~~
   - ~~(d) There should be no ignition of combustible materials on or in any adjacent enclosure during testing.~~
   - ~~(e) There should be no venting in any cells.~~
   - ~~(f) There should be no thermal runaways.~~

~~**G.11.4.1**~~

~~If the containers are populated, and the BMS monitors the modules during the test, fire impingement or damage might be acceptable as determined by the RDP if it doesn't include thermal runaway propagation.~~

~~**G.11.4.2**~~

~~In unpopulated containers, if flames penetrate through interconnection paths or fire propagates into adjacent containers, then the assumption is it will lead to thermal runaway propagation in the adjacent containers.~~

~~**G.11.4.3**~~

~~A registered design professional should review the collected data to verify that the large-scale fire condition of one ESS does not result in thermal runaway propagation to adjacent ESSs for location with exposures or it should be used to evaluate appropriate risk for remote locations.~~

~~**G.11.4.4**~~

~~If applicable, the details of any fire detection and suppression systems that are an integral part of the BESS should be noted in the test report.~~

~~**G.11.5 Test Procedure.**~~

~~**G.11.5.1**~~

~~Before performing the LSFT, cell-level testing should be conducted according to UL 9540A to characterize cell-level thermal runaway performance and gas flammability.~~

~~**G.11.5.2**~~

~~The test setup should reflect the final installed configuration of BESS, ancillary equipment, and targets representing any immediate surrounding enclosure or buildings.~~

~~**G.11.5.3 Active Fire and Thermal Runaway Mitigation Systems.**~~

~~**G.11.5.3.1**~~

~~Fire protection systems installed in accordance with applicable codes and standards should be installed and active in all enclosures in the test.~~

~~**G.11.5.3.2**~~

~~Thermal runaway mitigation technologies that are not installed in accordance with applicable codes and standards can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin.~~

~~**G.11.5.4 Passive Thermal Runaway Propagation Resistance Features.**~~

~~**G.11.5.4.1**~~

~~All passive design features should be included in the enclosure of origin and adjacent enclosures.~~

~~**G.11.5.4.2**~~

~~For liquid-cooled modules, nonflammable coolant should be drained from the battery module of origin to support the establishment of a developed fire condition but should be permitted in the rest of the unit and enclosure of origin. Flammable coolants should remain in all modules where they would be present per the manufacturer's installation instructions.~~

~~**G.11.5.5**~~

~~Test method modifications should take in account installation location such as:~~

~~(1) Outdoor enclosures~~
~~(2) Outdoor enclosures (stacked enclosures)~~
~~(3) Open parking garages~~
~~(4) Indoor system~~

~~**G.11.6 Ventilation.**~~

~~**G.11.6.1**~~

~~Ventilation paths in the enclosure should be opened if they are anticipated to be opened due to a deflagration in the enclosure of origin.~~

~~**G.11.6.2**~~

~~Doors and openings that are not opened in normal operation and are not expected to be opened by deflagration should remain closed during testing.~~

~~**G.11.6.2.1**~~

~~Designed deflagration pressure relief areas in the enclosure should be open from the beginning of the test. Openings that are not designed deflagration pressure relief areas should remain closed if the deflagration pressure relief area(s) are designed in accordance with NFPA 68 requirements.~~

~~**G.11.6.2.2**~~

~~If there is no designed deflagration pressure relief area(s), or deflagration pressure relief area(s) are not designed in accordance with NFPA 68 requirements, doors and other openings that are not opened in normal operation should be opened before the test and remain open throughout the test.~~

~~**G.11.6.2.3**~~

~~NFPA 69 systems do not need to be addressed, as this scenario is not within the scope of NFPA 69 system operation. By performing this LSFT, it is assumed that anyNFPA 69 exhaust system has not mitigated the ignition of gas venting from one or more cells in thermal runaway.~~

~~**G.11.7 Ignition Method.**~~

~~**G.11.7.1**~~

~~The ignition method should result in a developed fire condition throughout the enclosure of origin, though the exception is possible where the fire or thermal runaway propagation are limited by physical barriers or fire protection systems installed following applicable codes and standards.~~

~~**G.11.7.1.1**~~

~~The ignition method is intended to cause overheating, which can lead to thermal runaways and ignition of flammable gas mixtures vented from cells and nonbattery combustibles, resulting in a developed fire condition.~~

~~**G.11.7.2**~~

~~If a developed fire condition is not met, the test should be considered invalid.~~

~~**G.11.7.2.1**~~

~~The ignition method should be achieved with one of the following methods:~~

~~(1) Diffusion burner~~
~~(2) Semi-premixed burner~~
~~(3) Premixed burner~~
~~(4) Flexible film heaters with supplemental ignition sources~~

~~**G.11.7.2.2**~~

~~Ignition sources should be present in the path of flammable gases released due to thermal runaway. They should be present internally and externally to the enclosure of origin and positioned to avoid heating the battery system components.~~

~~**G.11.7.2.3**~~

~~If a burner is used, the burner can be considered as the ignition source. Additional ignition sources might not be necessary but should be optionally included.~~

~~**G.11.7.2.4**~~

~~Additional ignition sources should be included if flexible film heaters are used.~~

~~**G.11.7.2.5**~~

~~Viable ignition sources include spark plugs, glow plugs, spark showers, or pilot.~~

G.11.8 Abuse Condition.

G.11.8.1

While the abuse condition can be accomplished with a single ignition source, such as external fire or electrical arcing, separating the source for cell overheating and flammable gas ignition production might be easier to implement in some battery system designs. Cell overheating is achieved using an internal or external heater for the battery modules.

G.11.8.2

If a burner is used as the abuse condition, the following factors should be considered:

(1) Premixed burner: Heating would be localized to the burner's footprint, removing under-ventilation concerns. Thermal stress depends on burner design and requires high specificity for consistent applications. It would also be more robust in the face of suppression systems.

(2) Diffusion burner: It is easier to specify consistently (set kW, for example). Flames wrap around module geometry. It is less robust with suppression systems. It is more representative of surrounding combustible fires.

G.11.9 Mitigation Technologies.

G.11.9.1

It is assumed that active technologies intended to mitigate thermal runaways in the enclosure of origin do not prevent a developed fire condition, irrespective of whether they operate as intended. As such, this test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin. Thermal runaway mitigation technologies can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin. Fire protection systems installed per applicable codes and standards can be included in all enclosures in the test.

G.11.9.2

It is expected that active thermal runaway mitigation technologies for the unit of origin have been evaluated separately under the UL 9540A unit or installation level test. Active thermal runaway mitigation technologies include direct injection, but do not include systems that would be in place in normal operation like liquid cooling. Mitigation systems and their associated evaluation test are summarized in Table G.11.9.2.

Table G.11.9.2 Mitigation Systems

Mitigation System	Installation Location / Protection Area	Recommended Test Standard
Direct injection of water or other agent	Integrated into the battery module	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Integrated into the battery unit or rack	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Enclosure of origin	UL 9540A installation level test
Single-use, noncontinuous operation systems designed to protect the enclosure of origin	Enclosure of origin	UL 9540A installation level test

G.11.9.3

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin. For total flooding applications,

~~the entire system must be removed. Continuously operated local protection systems, such as direct injection, involve removing the system from the rack of origin only.~~

Recommended Text if Motion Fails:

G.11 Guidance on Implementing a Large-Scale Fire Test (LSFT).

G.11.1 Intentional Ignition of Vent Gases.

G.11.1.1

Ignition sources are included because existing technologies cannot make a battery energy storage system intrinsically safe because battery failure can generate its own ignition sources. Building codes and ESS installation codes do not require intrinsically safe electrical installation in the remainder of the electrical components in the BESS (e.g., switches, and so on).

G.11.1.2

Intentional ignition of the vent gases informs the degree of thermal runaway propagation hazard presented by the released flammable gases and the development of a fire protection strategy. The ignition source should be of sufficient magnitude, such as generated by a spark igniter, glow plug, or pilot flame located near the origin of the vented gases but outside of the module of origin, to cause prompt ignition of the flammable gases. External ignition in this manner is not intended to address deflagration mitigation as required in 9.2.1.4.

G.11.2 Scope and Intent of Large-Scale Fire Test (LSFT).

G.11.2.1

LSFT is intended to develop data to characterize the fire performance hazard of battery energy storage systems for scenarios originating from battery cells and propagating to additional cells susceptible to thermal runaway.

G.11.2.2

This test covers testing of a battery energy storage system installation by initiating a developed fire condition within the unit of origin, involving, but not limited to, batteries, and observing the effects on surrounding exposed surfaces that can lead to involvement of surrounding combustibles.

G.11.2.3

The test method intends to capture the peak thermal stress from a battery energy storage system procedure, such that it can represent many foreseeable failure conditions beyond a specific initiation scenario. The foreseeable failure conditions might include cell failures and additional failure scenarios outside the battery cells. Only protection systems installed in accordance with applicable codes and standards are allowed for inclusion in this LSFT method. Protection systems or components installed without applicable codes and standards are allowed for inclusion in the UL 9540A test method.

G.11.3 LSFT Objective.

G.11.3.1

The objective of the test method is to evaluate the thermal exposure from a developed fire within a battery energy storage system unit, including nonbattery components, to determine propagation/ignition risk to adjacent units or exposures. The test setup should reflect the final installed configuration of BESS, ancillary equipment, and any immediate surrounding enclosure or buildings.

G.11.3.1.1

Where accumulation of flammable vent gases might occur, this test method evaluates the developed fire scenario after any potential ignition of the vent gases, including the operation of any mitigation devices, such as deflagration panels.

G.11.3.1.2

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin.

G.11.3.1.3

Only fire protection systems designed and installed in accordance with applicable product and installation standards and meeting applicable code requirements should be used.

G.11.3.2

Tests conducted according to this test method should generate quantitative data to measure thermal exposure to adjacent units or exposures.

G.11.3.3

This test method is not intended to evaluate the effectiveness of systems designed to protect against the accumulation of flammable gas, deflagration mitigation systems, or the reliability of safety systems.

G.11.3.4

This test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin, but thermal runaway mitigation devices and strategies can be incorporated in all adjacent enclosures.

G.11.3.5

Section G.11.3 recommendations do not cover battery energy storage systems intended for residential use.

G.11.4 LSFT Evaluations.

LSFT should include the following evaluations:

3. Performance criteria [BESS and BESS equipment (e.g., inverters, combustible wire insulation)], including the following:
   (e) Fire and damage impact on critical safety systems.
   (f) Survivability of the communication pathways.
   (g) Proposed spacing between finished product configuration of BESS for outdoor and indoor applications.
   (h) Fire Impingement, ignition, and damage to exposed surfaces or that lead to thermal runaway propagation, including the following:
      iii. Evaluate combustibles—"Involve"
      iv. Evaluate noncombustibles—"Effect"
4. Exposure to BESS (batteries), including the following:
   (g) Adjacent enclosures should all be partially populated (on the sides of the exposure closest to the DUT).
   (h) The surface temperature of modules within the BESS units adjacent to the initiating BESS unit should not exceed the temperature at which thermally initiated cell venting occurs according to UL 9540A cell level testing.
   (i) Module temperatures measured by the BMS in target enclosures should not be used for this evaluation.
   (j) There should be no ignition of combustible materials on or in any adjacent enclosure during testing.
   (k) There should be no venting in any cells.
   (l) There should be no thermal runaways.

G.11.4.1

If the containers are populated, and the BMS monitors the modules during the test, fire impingement or damage might be acceptable as determined by the RDP if it doesn't include thermal runaway propagation.

G.11.4.2

In unpopulated containers, if flames penetrate through interconnection paths or fire propagates into adjacent containers, then the assumption is it will lead to thermal runaway propagation in the adjacent containers.

G.11.4.3

A registered design professional should review the collected data to verify that the large-scale fire condition of one ESS does not result in thermal runaway propagation to adjacent ESSs for location with exposures or it should be used to evaluate appropriate risk for remote locations.

G.11.4.4

If applicable, the details of any fire detection and suppression systems that are an integral part of the BESS should be noted in the test report.

G.11.5 Test Procedure.

G.11.5.1

Before performing the LSFT, cell-level testing should be conducted according to UL 9540A to characterize cell-level thermal runaway performance and gas flammability.

G.11.5.2

The test setup should reflect the final installed configuration of BESS, ancillary equipment, and targets representing any immediate surrounding enclosure or buildings.

G.11.5.3 Active Fire and Thermal Runaway Mitigation Systems.

G.11.5.3.1

Fire protection systems installed in accordance with applicable codes and standards should be installed and active in all enclosures in the test.

G.11.5.3.2

Thermal runaway mitigation technologies that are not installed in accordance with applicable codes and standards can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin.

G.11.5.4 Passive Thermal Runaway Propagation Resistance Features.

G.11.5.4.1

All passive design features should be included in the enclosure of origin and adjacent enclosures.

G.11.5.4.2

For liquid-cooled modules, nonflammable coolant should be drained from the battery module of origin to support the establishment of a developed fire condition but should be permitted in the rest of the unit and enclosure of origin. Flammable coolants should remain in all modules where they would be present per the manufacturer's installation instructions.

G.11.5.5

Test method modifications should take in account installation location such as:

(5) Outdoor enclosures
(6) Outdoor enclosures (stacked enclosures)
(7) Open parking garages
(8) Indoor system

G.11.6 Ventilation.

G.11.6.1

Ventilation paths in the enclosure should be opened if they are anticipated to be opened due to a deflagration in the enclosure of origin.

G.11.6.2

Doors and openings that are not opened in normal operation and are not expected to be opened by deflagration should remain closed during testing.

G.11.6.2.1

Designed deflagration pressure relief areas in the enclosure should be open from the beginning of the test. Openings that are not designed deflagration pressure relief areas should remain closed if the deflagration pressure relief area(s) are designed in accordance with NFPA 68 requirements.

G.11.6.2.2

If there is no designed deflagration pressure relief area(s), or deflagration pressure relief area(s) are not designed in accordance with NFPA 68 requirements, doors and other openings that are not opened in normal operation should be opened before the test and remain open throughout the test.

G.11.6.2.3

NFPA 69 systems do not need to be addressed, as this scenario is not within the scope of NFPA 69 system operation. By performing this LSFT, it is assumed that anyNFPA 69 exhaust system has not mitigated the ignition of gas venting from one or more cells in thermal runaway.

G.11.7 Ignition Method.

G.11.7.1

The ignition method should result in a developed fire condition throughout the enclosure of origin, though the exception is possible where the fire or thermal runaway propagation are limited by physical barriers or fire protection systems installed following applicable codes and standards.

G.11.7.1.1

The ignition method is intended to cause overheating, which can lead to thermal runaways and ignition of flammable gas mixtures vented from cells and nonbattery combustibles, resulting in a developed fire condition.

G.11.7.2

If a developed fire condition is not met, the test should be considered invalid.

G.11.7.2.1

The ignition method should be achieved with one of the following methods:

(5) Diffusion burner
(6) Semi-premixed burner
(7) Premixed burner
(8) Flexible film heaters with supplemental ignition sources

G.11.7.2.2

Ignition sources should be present in the path of flammable gases released due to thermal runaway. They should be present internally and externally to the enclosure of origin and positioned to avoid heating the battery system components.

G.11.7.2.3

If a burner is used, the burner can be considered as the ignition source. Additional ignition sources might not be necessary but should be optionally included.

G.11.7.2.4

Additional ignition sources should be included if flexible film heaters are used.

G.11.7.2.5

Viable ignition sources include spark plugs, glow plugs, spark showers, or pilot.

G.11.8 Abuse Condition.

G.11.8.1

While the abuse condition can be accomplished with a single ignition source, such as external fire or electrical arcing, separating the source for cell overheating and flammable gas ignition production might be easier to implement in some battery system designs. Cell overheating is achieved using an internal or external heater for the battery modules.

G.11.8.2

If a burner is used as the abuse condition, the following factors should be considered:

(3) Premixed burner: Heating would be localized to the burner's footprint, removing under-ventilation concerns. Thermal stress depends on burner design and requires high specificity for consistent applications. It would also be more robust in the face of suppression systems.

(4) Diffusion burner: It is easier to specify consistently (set kW, for example). Flames wrap around module geometry. It is less robust with suppression systems. It is more representative of surrounding combustible fires.

G.11.9 Mitigation Technologies.

G.11.9.1

It is assumed that active technologies intended to mitigate thermal runaways in the enclosure of origin do not prevent a developed fire condition, irrespective of whether they operate as intended. As such, this test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin. Thermal runaway mitigation technologies can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin. Fire protection systems installed per applicable codes and standards can be included in all enclosures in the test.

G.11.9.2

It is expected that active thermal runaway mitigation technologies for the unit of origin have been evaluated separately under the UL 9540A unit or installation level test. Active thermal runaway mitigation technologies include direct injection, but do not include systems that would be in place in normal operation like liquid cooling. Mitigation systems and their associated evaluation test are summarized in Table G.11.9.2.

Table G.11.9.2 Mitigation Systems

Mitigation System	Installation Location / Protection Area	Recommended Test Standard
Direct injection of water or other agent	Integrated into the battery module	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Integrated into the battery unit or rack	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Enclosure of origin	UL 9540A installation level test
Single-use, noncontinuous operation systems designed to protect the enclosure of origin	Enclosure of origin	UL 9540A installation level test

G.11.9.3

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin. For total flooding applications, the entire system must be removed. Continuously operated local protection systems, such as direct injection, involve removing the system from the rack of origin only.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Michael Becker, CSA Group

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 48

CAM No. 855-29

Recommended Text if Motion Passes:

A.9.2.1

~~See Section G.11 for test objectives of the large-scale test.~~

A UL 9540A test or equivalent test should evaluate the fire characteristics of the composition of combustible gases generated at cell level, module level, and unit and installation levels for an indoor installation of an ESS that undergoes thermal runaway, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during testing at the unit level and indoor installation level testing should document whether the thermal runaway propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level.

The test methodology in UL 9540A determines the capability of a battery technology to undergo thermal runaway and then evaluates the fire and explosion hazard characteristics of those battery energy storage systems that have demonstrated a capability to undergo thermal runaway.

The test sequence in UL 9540A includes, in order, cell-, module-, unit-, and installation-level tests. If the following individual test performance criteria are obtained, no further testing in the sequence is needed:

(1) *Cell-level test.* Thermal runaway cannot be induced in the cell and the cell vent gas is nonflammable in air in accordance with ASTM E918.

(2) *Module-level test.* The effects of thermal runaway are contained by the module design, and cell vent gas (based on the cell level test) is nonflammable.

(3) *Unit-level test.* Acceptable performance criteria include the following:

(a) Target ESS module temperatures less than cell venting temperature

(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient.

(c) No explosion hazards exhibited by the product.

(d) No flaming beyond outer dimensions of ESS unit (indoor floor mount, indoor and outdoor, wall mount).

(e) Meets the heat flux limits for means of egress (for ESS units intended for near exposures)

(4) *Installation-level test.* Acceptable performance includes the following:

(a) Target ESS temperatures less than cell venting temperature
(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient.
(c) The flame indicator does not propagate flames beyond the enclosure dimensions of the initiating ESS.
(d) No flaming outside the test room and meets the heat flux limits for the means of egress.
(e) There is no observation of detonation or deflagration (unless mitigated by an engineered deflagration protection systems).
(f) No re-ignition within the ESS after test and sprinkler usage discontinued.
(g) Meets the heat flux limits for means of egress (for ESS units intended for near exposures).

The test requirements outlined in 9.1.5.1.2 through 9.1.5.1.5 are specific to chemistries that undergo thermal runaway, such as lithium-ion, and might not represent requirements for non-lithium-ion chemistries.

Alternative chemistries might have different procedures or exceptions based on the unique hazard profile. UL 9540A should be referenced to determine the specific requirements for fire testing for alternative chemistries.

Examples of alternative chemistries with unique test procedures include aqueous chemistries such as lead-acid, nickel-cadmium, and iron-air.

The data generated by the fire testing is intended to be used by manufacturers, system designers, and AHJs to determine the need for fire and explosion control and prevention required for an ESS installation.

Note: Section A.9.2.1 was moved from former location A.9.1.5.1 as part of Second Draft Revisions; the appropriate numbering will be editorially cross-checked for accuracy and Manual of Style compliance once all Motion results are finalized

Recommended Text if Motion Fails:

A.9.2.1

See Section G.11 for test objectives of the large-scale test.

A UL 9540A test or equivalent test should evaluate the fire characteristics of the composition of combustible gases generated at cell level, module level, and unit and installation levels for an indoor installation of an ESS that undergoes thermal runaway, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during testing at the unit level and indoor installation level testing should document whether the thermal runaway propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level.

The test methodology in UL 9540A determines the capability of a battery technology to undergo thermal runaway and then evaluates the fire and explosion hazard characteristics of those battery energy storage systems that have demonstrated a capability to undergo thermal runaway.

The test sequence in UL 9540A includes, in order, cell-, module-, unit-, and installation-level tests. If the following individual test performance criteria are obtained, no further testing in the sequence is needed:

(1) *Cell-level test.* Thermal runaway cannot be induced in the cell and the cell vent gas is nonflammable in air in accordance with ASTM E918.

(2) *Module-level test.* The effects of thermal runaway are contained by the module design, and cell vent gas (based on the cell level test) is nonflammable.

(3) *Unit-level test.* Acceptable performance criteria include the following:

(a) Target ESS module temperatures less than cell venting temperature

(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient

(c) No explosion hazards exhibited by the product

(d) No flaming beyond outer dimensions of ESS unit (indoor floor mount, indoor and outdoor, wall mount)

(e) Meets the heat flux limits for means of egress (for ESS units intended for near exposures)

(4) *Installation-level test.* Acceptable performance includes the following:

(a) Target ESS temperatures less than cell venting temperature
(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient.
(c) The flame indicator does not propagate flames beyond the enclosure dimensions of the initiating ESS.

(d) No flaming outside the test room and meets the heat flux limits for the means of egress.
(e) There is no observation of detonation or deflagration (unless mitigated by an engineered deflagration protection systems).
(f) No re-ignition within the ESS after test and sprinkler usage discontinued.
(g) Meets the heat flux limits for means of egress (for ESS units intended for near exposures).

The test requirements outlined in 9.1.5.1.2 through 9.1.5.1.5 are specific to chemistries that undergo thermal runaway, such as lithium-ion, and might not represent requirements for non-lithium-ion chemistries.

Alternative chemistries might have different procedures or exceptions based on the unique hazard profile. UL 9540A should be referenced to determine the specific requirements for fire testing for alternative chemistries.

Examples of alternative chemistries with unique test procedures include aqueous chemistries such as lead-acid, nickel-cadmium, and iron-air.

The data generated by the fire testing is intended to be used by manufacturers, system designers, and AHJs to determine the need for fire and explosion control and prevention required for an ESS installation.

Note: Section A.9.2.1 was moved from former location A.9.1.5.1 as part of Second Draft Revisions

AMENDMENT BALLOT No. 855-29

Technical Committee on Energy Storage Systems

NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 855-29 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

A.9.2.1

~~See Section G.11 for test objectives of the large-scale test.~~

A UL 9540A test or equivalent test should evaluate the fire characteristics of the composition of combustible gases generated at cell level, module level, and unit and installation levels for an indoor installation of an ESS that undergoes thermal runaway, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during testing at the unit level and indoor installation level testing should document whether the thermal runaway propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level.

The test methodology in UL 9540A determines the capability of a battery technology to undergo thermal runaway and then evaluates the fire and explosion hazard characteristics of those battery energy storage systems that have demonstrated a capability to undergo thermal runaway.

The test sequence in UL 9540A includes, in order, cell-, module-, unit-, and installation-level tests. If the following individual test performance criteria are obtained, no further testing in the sequence is needed:

(1) *Cell-level test.* Thermal runaway cannot be induced in the cell and the cell vent gas is nonflammable in air in accordance with ASTM E918.

(2) *Module-level test.* The effects of thermal runaway are contained by the module design, and cell vent gas (based on the cell level test) is nonflammable.

(3) *Unit-level test.* Acceptable performance criteria include the following:

(a) Target ESS module temperatures less than cell venting temperature

(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient.

(c) No explosion hazards exhibited by the product.

(d) No flaming beyond outer dimensions of ESS unit (indoor floor mount, indoor and outdoor, wall mount).

(e) Meets the heat flux limits for means of egress (for ESS units intended for near exposures)

(4) *Installation-level test.* Acceptable performance includes the following:

(a) Target ESS temperatures less than cell venting temperature
(b) Temperature increase of target walls do not exceed 97°C (175°F) above ambient.
(c) The flame indicator does not propagate flames beyond the enclosure dimensions of the initiating ~~B~~ESS.
(d) No flaming outside the test room and meets the heat flux limits for the means of egress.
(e) There is no observation of detonation or deflagration (unless mitigated by an engineered deflagration protection systems).
(f) No re-ignition within the ESS after test and sprinkler usage discontinued.
(g) Meets the heat flux limits for means of egress (for ESS units intended for near exposures).

The test requirements outlined in 9.1.5.1.2 through 9.1.5.1.5 are specific to chemistries that undergo thermal runaway, such as lithium-ion, and might not represent requirements for non-lithium-ion chemistries.

Alternative chemistries might have different procedures or exceptions based on the unique hazard profile. UL 9540A should be referenced to determine the specific requirements for fire testing for alternative chemistries.

Examples of alternative chemistries with unique test procedures include aqueous chemistries such as lead-acid, nickel-cadmium, and iron-air.

The data generated by the fire testing is intended to be used by manufacturers, system designers, and AHJs to determine the need for fire and explosion control and prevention required for an ESS installation.

Note: Section A.9.2.1 was moved from former location A.9.1.5.1 as part of Second Draft Revisions; the appropriate numbering will be editorially cross-checked for accuracy and Manual of Style compliance once all Motion results are finalized

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IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 855-29 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

A.9.2.1

A UL 9540A test or equivalent test should evaluate the fire characteristics of the composition of gases generated at cell level, module level, and unit and installation levels for an indoor installation of an ESS that undergoes thermal runaway, such as what might occur due to a fault, physical damage, or exposure hazard. The evaluation of the fire characteristics during fire vent testing at the unit level and indoor installation level testing should document whether the fire event propagates to the neighboring ESS units and include radiant heat flux measurements at enclosing wall surfaces and at various distances from the ESS being tested at the unit level. The data generated by the fire and explosion testing is intended to be used by manufacturers, system designers, and AHJs to determine the need for fire and explosion protection required for an ESS installation.

Note: If results are to return to previous edition text, the affected text will be editorially renumbered to align with Second Draft recommendations of moving this text.

NFPA 855, ***Installation of Stationary Energy Storage Systems***
Submitter: Povl Hansen, STIF

Certified Amending Motion to Accept Public Comment No. 266	
CAM No. 855-31	**Recommended Text if Motion Passes:** **9.7.6.7.3*** All ESSs shall be provided with a reliable <u>active</u> explosion control and prevention system designed, installed, operated, maintained, and tested in accordance with NFPA 69 <u>as well a passive explosion protection system in accordance with NFPA 68.</u> ***Note: Section 9.7.6.7.3 was moved from former location 9.6.6.6.3 as part of Second Draft Revisions***
	Recommended Text if Motion Fails: 9.7.6.7.3* All ESSs shall be provided with a reliable explosion control and prevention system designed, installed, operated, maintained, and tested in accordance with NFPA 69.

AMENDMENT BALLOT No. 855-31

Technical Committee on Energy Storage Systems

NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 855-31 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

9.7.6.7.3*

All ESSs shall be provided with a reliable active explosion control and prevention system designed, installed, operated, maintained, and tested in accordance with NFPA 69 as well a passive explosion protection system in accordance with NFPA 68.

***Note: Section 9.7.6.7.3 was moved from former location 9.6.6.6.3 as part of Second Draft Revisions*

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 855-31 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

9.7.6.7.3*

ESS installed within a room, building, ESS cabinet, ESS walk-in unit, or otherwise nonoccupiable enclosure shall be provided with one of the following:

(1) Explosion control and prevention systems designed, installed, operated, maintained, and tested in accordance with NFPA 69

(2) Deflagration venting installed and maintained in accordance with NFPA 68

***Note: If results are to return to previous edition text, the affected text will be editorially renumbered to align with Second Draft recommendations of moving this text.*

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Abid Anwar, Tesla, Inc.

Certified Amending Motion to Reject Second Revision No. 78	
CAM No. 855-35	**Recommended Text if Motion Passes:** ~~**G.11 Guidance on Implementing a Large-Scale Fire Test (LSFT).**~~ ~~**G.11.1 Intentional Ignition of Vent Gases.**~~ ~~**G.11.1.1**~~ ~~Ignition sources are included because existing technologies cannot make a battery energy storage system intrinsically safe because battery failure can generate its own ignition sources. Building codes and ESS installation codes do not require intrinsically safe electrical installation in the remainder of the electrical components in the BESS (e.g., switches, and so on).~~ ~~**G.11.1.2**~~ ~~Intentional ignition of the vent gases informs the degree of thermal runaway propagation hazard presented by the released flammable gases and the development of a fire protection strategy. The ignition source should be of sufficient magnitude, such as generated by a spark igniter, glow plug, or pilot flame located near the origin of the vented gases but outside of the module of origin, to cause prompt ignition of the flammable gases. External ignition in this manner is not intended to address deflagration mitigation as required in 9.2.1.4.~~ ~~**G.11.2 Scope and Intent of Large-Scale Fire Test (LSFT).**~~ ~~**G.11.2.1**~~ ~~LSFT is intended to develop data to characterize the fire performance hazard of battery energy storage systems for scenarios originating from battery cells and propagating to additional cells susceptible to thermal runaway.~~ ~~**G.11.2.2**~~ ~~This test covers testing of a battery energy storage system installation by initiating a developed fire condition within the unit of origin, involving, but not limited to, batteries, and observing the effects on surrounding exposed surfaces that can lead to involvement of surrounding combustibles.~~ ~~**G.11.2.3**~~ ~~The test method intends to capture the peak thermal stress from a battery energy storage system procedure, such that it can represent many foreseeable failure conditions beyond a specific initiation scenario. The foreseeable failure conditions might include cell failures and additional failure scenarios outside the battery cells. Only protection systems installed in accordance with applicable codes and standards are allowed for inclusion in this LSFT method. Protection systems or components installed without applicable codes and standards are allowed for inclusion in the UL 9540A test method.~~ ~~**G.11.3 LSFT Objective.**~~ ~~**G.11.3.1**~~ ~~The objective of the test method is to evaluate the thermal exposure from a developed fire within a battery energy storage system unit, including nonbattery components, to determine propagation/ignition risk to adjacent units or exposures. The test setup should reflect the final installed configuration of BESS, ancillary equipment, and any immediate surrounding enclosure or buildings.~~ ~~**G.11.3.1.1**~~ ~~Where accumulation of flammable vent gases might occur, this test method evaluates the developed fire scenario after any potential ignition of the vent gases, including the operation of any mitigation devices, such as deflagration panels.~~

~~**G.11.3.1.2**~~

~~The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin.~~

~~**G.11.3.1.3**~~

~~Only fire protection systems designed and installed in accordance with applicable product and installation standards and meeting applicable code requirements should be used.~~

~~**G.11.3.2**~~

~~Tests conducted according to this test method should generate quantitative data to measure thermal exposure to adjacent units or exposures.~~

~~**G.11.3.3**~~

~~This test method is not intended to evaluate the effectiveness of systems designed to protect against the accumulation of flammable gas, deflagration mitigation systems, or the reliability of safety systems.~~

~~**G.11.3.4**~~

~~This test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin, but thermal runaway mitigation devices and strategies can be incorporated in all adjacent enclosures.~~

~~**G.11.3.5**~~

~~Section G.11.3 recommendations do not cover battery energy storage systems intended for residential use.~~

~~**G.11.4 LSFT Evaluations.**~~

~~LSFT should include the following evaluations:~~

1. ~~Performance criteria [BESS and BESS equipment (e.g., inverters, combustible wire insulation)], including the following:~~
   - ~~(a) Fire and damage impact on critical safety systems.~~
   - ~~(b) Survivability of the communication pathways.~~
   - ~~(c) Proposed spacing between finished product configuration of BESS for outdoor and indoor applications.~~
   - ~~(d) Fire Impingement, ignition, and damage to exposed surfaces or that lead to thermal runaway propagation, including the following:~~
     - ~~i. Evaluate combustibles – "Involve"~~
     - ~~ii. Evaluate noncombustibles – "Effect"~~
2. ~~Exposure to BESS (batteries), including the following:~~
   - ~~(a) Adjacent enclosures should all be partially populated (on the sides of the exposure closest to the DUT).~~
   - ~~(b) The surface temperature of modules within the BESS units adjacent to the initiating BESS unit should not exceed the temperature at which thermally initiated cell venting occurs according to UL 9540A cell level testing.~~
   - ~~(c) Module temperatures measured by the BMS in target enclosures should not be used for this evaluation.~~
   - ~~(d) There should be no ignition of combustible materials on or in any adjacent enclosure during testing.~~
   - ~~(e) There should be no venting in any cells.~~
   - ~~(f) There should be no thermal runaways.~~

~~**G.11.4.1**~~

~~If the containers are populated, and the BMS monitors the modules during the test, fire impingement or damage might be acceptable as determined by the RDP if it doesn't include thermal runaway propagation.~~

~~**G.11.4.2**~~

~~In unpopulated containers, if flames penetrate through interconnection paths or fire propagates into adjacent containers, then the assumption is it will lead to thermal runaway propagation in the adjacent containers.~~

~~**G.11.4.3**~~

~~A registered design professional should review the collected data to verify that the large-scale fire condition of one ESS does not result in thermal runaway propagation to adjacent ESSs for location with exposures or it should be used to evaluate appropriate risk for remote locations.~~

~~**G.11.4.4**~~

~~If applicable, the details of any fire detection and suppression systems that are an integral part of the BESS should be noted in the test report.~~

~~**G.11.5 Test Procedure.**~~

~~**G.11.5.1**~~

~~Before performing the LSFT, cell-level testing should be conducted according to UL 9540A to characterize cell-level thermal runaway performance and gas flammability.~~

~~**G.11.5.2**~~

~~The test setup should reflect the final installed configuration of BESS, ancillary equipment, and targets representing any immediate surrounding enclosure or buildings.~~

~~**G.11.5.3 Active Fire and Thermal Runaway Mitigation Systems.**~~

~~**G.11.5.3.1**~~

~~Fire protection systems installed in accordance with applicable codes and standards should be installed and active in all enclosures in the test.~~

~~**G.11.5.3.2**~~

~~Thermal runaway mitigation technologies that are not installed in accordance with applicable codes and standards can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin.~~

~~**G.11.5.4 Passive Thermal Runaway Propagation Resistance Features.**~~

~~**G.11.5.4.1**~~

~~All passive design features should be included in the enclosure of origin and adjacent enclosures.~~

~~**G.11.5.4.2**~~

~~For liquid-cooled modules, nonflammable coolant should be drained from the battery module of origin to support the establishment of a developed fire condition but should be permitted in the rest of the unit and enclosure of origin. Flammable coolants should remain in all modules where they would be present per the manufacturer's installation instructions.~~

~~**G.11.5.5**~~

~~Test method modifications should take in account installation location such as:~~

~~(1) Outdoor enclosures~~
~~(2) Outdoor enclosures (stacked enclosures)~~
~~(3) Open parking garages~~
~~(4) Indoor system~~

~~**G.11.6 Ventilation.**~~

~~**G.11.6.1**~~

~~Ventilation paths in the enclosure should be opened if they are anticipated to be opened due to a deflagration in the enclosure of origin.~~

~~**G.11.6.2**~~

~~Doors and openings that are not opened in normal operation and are not expected to be opened by deflagration should remain closed during testing.~~

~~**G.11.6.2.1**~~

~~Designed deflagration pressure relief areas in the enclosure should be open from the beginning of the test. Openings that are not designed deflagration pressure relief areas should remain closed if the deflagration pressure relief area(s) are designed in accordance with NFPA 68 requirements.~~

~~**G.11.6.2.2**~~

~~If there is no designed deflagration pressure relief area(s), or deflagration pressure relief area(s) are not designed in accordance with NFPA 68 requirements, doors and other openings that are not opened in normal operation should be opened before the test and remain open throughout the test.~~

~~**G.11.6.2.3**~~

~~NFPA 69 systems do not need to be addressed, as this scenario is not within the scope of NFPA 69 system operation. By performing this LSFT, it is assumed that anyNFPA 69 exhaust system has not mitigated the ignition of gas venting from one or more cells in thermal runaway.~~

~~**G.11.7 Ignition Method.**~~

~~**G.11.7.1**~~

~~The ignition method should result in a developed fire condition throughout the enclosure of origin, though the exception is possible where the fire or thermal runaway propagation are limited by physical barriers or fire protection systems installed following applicable codes and standards.~~

~~**G.11.7.1.1**~~

~~The ignition method is intended to cause overheating, which can lead to thermal runaways and ignition of flammable gas mixtures vented from cells and nonbattery combustibles, resulting in a developed fire condition.~~

~~**G.11.7.2**~~

~~If a developed fire condition is not met, the test should be considered invalid.~~

~~**G.11.7.2.1**~~

~~The ignition method should be achieved with one of the following methods:~~

~~(1) Diffusion burner~~
~~(2) Semi-premixed burner~~
~~(3) Premixed burner~~
~~(4) Flexible film heaters with supplemental ignition sources~~

~~**G.11.7.2.2**~~

~~Ignition sources should be present in the path of flammable gases released due to thermal runaway. They should be present internally and externally to the enclosure of origin and positioned to avoid heating the battery system components.~~

~~**G.11.7.2.3**~~

~~If a burner is used, the burner can be considered as the ignition source. Additional ignition sources might not be necessary but should be optionally included.~~

~~**G.11.7.2.4**~~

~~Additional ignition sources should be included if flexible film heaters are used.~~

~~**G.11.7.2.5**~~

~~Viable ignition sources include spark plugs, glow plugs, spark showers, or pilot.~~

G.11.8 Abuse Condition.

G.11.8.1

While the abuse condition can be accomplished with a single ignition source, such as external fire or electrical arcing, separating the source for cell overheating and flammable gas ignition production might be easier to implement in some battery system designs. Cell overheating is achieved using an internal or external heater for the battery modules.

G.11.8.2

If a burner is used as the abuse condition, the following factors should be considered:

(1) Premixed burner: Heating would be localized to the burner's footprint, removing under-ventilation concerns. Thermal stress depends on burner design and requires high specificity for consistent applications. It would also be more robust in the face of suppression systems.

(2) Diffusion burner: It is easier to specify consistently (set kW, for example). Flames wrap around module geometry. It is less robust with suppression systems. It is more representative of surrounding combustible fires.

G.11.9 Mitigation Technologies.

G.11.9.1

It is assumed that active technologies intended to mitigate thermal runaways in the enclosure of origin do not prevent a developed fire condition, irrespective of whether they operate as intended. As such, this test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin. Thermal runaway mitigation technologies can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin. Fire protection systems installed per applicable codes and standards can be included in all enclosures in the test.

G.11.9.2

It is expected that active thermal runaway mitigation technologies for the unit of origin have been evaluated separately under the UL 9540A unit or installation level test. Active thermal runaway mitigation technologies include direct injection, but do not include systems that would be in place in normal operation like liquid cooling. Mitigation systems and their associated evaluation test are summarized in Table G.11.9.2.

Table G.11.9.2 Mitigation Systems

Mitigation System	Installation Location / Protection Area	Recommended Test Standard
Direct injection of water or other agent	Integrated into the battery module	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Integrated into the battery unit or rack	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Enclosure of origin	UL 9540A installation level test
Single-use, noncontinuous operation systems designed to protect the enclosure of origin	Enclosure of origin	UL 9540A installation level test

G.11.9.3

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin. For total flooding applications,

~~the entire system must be removed. Continuously operated local protection systems, such as direct injection, involve removing the system from the rack of origin only.~~

Recommended Text if Motion Fails:

G.11 Guidance on Implementing a Large-Scale Fire Test (LSFT).

G.11.1 Intentional Ignition of Vent Gases.

G.11.1.1

Ignition sources are included because existing technologies cannot make a battery energy storage system intrinsically safe because battery failure can generate its own ignition sources. Building codes and ESS installation codes do not require intrinsically safe electrical installation in the remainder of the electrical components in the BESS (e.g., switches, and so on).

G.11.1.2

Intentional ignition of the vent gases informs the degree of thermal runaway propagation hazard presented by the released flammable gases and the development of a fire protection strategy. The ignition source should be of sufficient magnitude, such as generated by a spark igniter, glow plug, or pilot flame located near the origin of the vented gases but outside of the module of origin, to cause prompt ignition of the flammable gases. External ignition in this manner is not intended to address deflagration mitigation as required in 9.2.1.4.

G.11.2 Scope and Intent of Large-Scale Fire Test (LSFT).

G.11.2.1

LSFT is intended to develop data to characterize the fire performance hazard of battery energy storage systems for scenarios originating from battery cells and propagating to additional cells susceptible to thermal runaway.

G.11.2.2

This test covers testing of a battery energy storage system installation by initiating a developed fire condition within the unit of origin, involving, but not limited to, batteries, and observing the effects on surrounding exposed surfaces that can lead to involvement of surrounding combustibles.

G.11.2.3

The test method intends to capture the peak thermal stress from a battery energy storage system procedure, such that it can represent many foreseeable failure conditions beyond a specific initiation scenario. The foreseeable failure conditions might include cell failures and additional failure scenarios outside the battery cells. Only protection systems installed in accordance with applicable codes and standards are allowed for inclusion in this LSFT method. Protection systems or components installed without applicable codes and standards are allowed for inclusion in the UL 9540A test method.

G.11.3 LSFT Objective.

G.11.3.1

The objective of the test method is to evaluate the thermal exposure from a developed fire within a battery energy storage system unit, including nonbattery components, to determine propagation/ignition risk to adjacent units or exposures. The test setup should reflect the final installed configuration of BESS, ancillary equipment, and any immediate surrounding enclosure or buildings.

G.11.3.1.1

Where accumulation of flammable vent gases might occur, this test method evaluates the developed fire scenario after any potential ignition of the vent gases, including the operation of any mitigation devices, such as deflagration panels.

G.11.3.1.2

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin.

G.11.3.1.3

Only fire protection systems designed and installed in accordance with applicable product and installation standards and meeting applicable code requirements should be used.

G.11.3.2

Tests conducted according to this test method should generate quantitative data to measure thermal exposure to adjacent units or exposures.

G.11.3.3

This test method is not intended to evaluate the effectiveness of systems designed to protect against the accumulation of flammable gas, deflagration mitigation systems, or the reliability of safety systems.

G.11.3.4

This test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin, but thermal runaway mitigation devices and strategies can be incorporated in all adjacent enclosures.

G.11.3.5

Section G.11.3 recommendations do not cover battery energy storage systems intended for residential use.

G.11.4 LSFT Evaluations.

LSFT should include the following evaluations:

3. Performance criteria [BESS and BESS equipment (e.g., inverters, combustible wire insulation)], including the following:
   (e) Fire and damage impact on critical safety systems.
   (f) Survivability of the communication pathways.
   (g) Proposed spacing between finished product configuration of BESS for outdoor and indoor applications.
   (h) Fire Impingement, ignition, and damage to exposed surfaces or that lead to thermal runaway propagation, including the following:
      iii. Evaluate combustibles—"Involve"
      iv. Evaluate noncombustibles—"Effect"
4. Exposure to BESS (batteries), including the following:
   (g) Adjacent enclosures should all be partially populated (on the sides of the exposure closest to the DUT).
   (h) The surface temperature of modules within the BESS units adjacent to the initiating BESS unit should not exceed the temperature at which thermally initiated cell venting occurs according to UL 9540A cell level testing.
   (i) Module temperatures measured by the BMS in target enclosures should not be used for this evaluation.
   (j) There should be no ignition of combustible materials on or in any adjacent enclosure during testing.
   (k) There should be no venting in any cells.
   (l) There should be no thermal runaways.

G.11.4.1

If the containers are populated, and the BMS monitors the modules during the test, fire impingement or damage might be acceptable as determined by the RDP if it doesn't include thermal runaway propagation.

G.11.4.2

In unpopulated containers, if flames penetrate through interconnection paths or fire propagates into adjacent containers, then the assumption is it will lead to thermal runaway propagation in the adjacent containers.

G.11.4.3

A registered design professional should review the collected data to verify that the large-scale fire condition of one ESS does not result in thermal runaway propagation to adjacent ESSs for location with exposures or it should be used to evaluate appropriate risk for remote locations.

G.11.4.4

If applicable, the details of any fire detection and suppression systems that are an integral part of the BESS should be noted in the test report.

G.11.5 Test Procedure.

G.11.5.1

Before performing the LSFT, cell-level testing should be conducted according to UL 9540A to characterize cell-level thermal runaway performance and gas flammability.

G.11.5.2

The test setup should reflect the final installed configuration of BESS, ancillary equipment, and targets representing any immediate surrounding enclosure or buildings.

G.11.5.3 Active Fire and Thermal Runaway Mitigation Systems.

G.11.5.3.1

Fire protection systems installed in accordance with applicable codes and standards should be installed and active in all enclosures in the test.

G.11.5.3.2

Thermal runaway mitigation technologies that are not installed in accordance with applicable codes and standards can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin.

G.11.5.4 Passive Thermal Runaway Propagation Resistance Features.

G.11.5.4.1

All passive design features should be included in the enclosure of origin and adjacent enclosures.

G.11.5.4.2

For liquid-cooled modules, nonflammable coolant should be drained from the battery module of origin to support the establishment of a developed fire condition but should be permitted in the rest of the unit and enclosure of origin. Flammable coolants should remain in all modules where they would be present per the manufacturer's installation instructions.

G.11.5.5

Test method modifications should take in account installation location such as:

(5) Outdoor enclosures
(6) Outdoor enclosures (stacked enclosures)
(7) Open parking garages
(8) Indoor system

G.11.6 Ventilation.

G.11.6.1

Ventilation paths in the enclosure should be opened if they are anticipated to be opened due to a deflagration in the enclosure of origin.

G.11.6.2

Doors and openings that are not opened in normal operation and are not expected to be opened by deflagration should remain closed during testing.

G.11.6.2.1

Designed deflagration pressure relief areas in the enclosure should be open from the beginning of the test. Openings that are not designed deflagration pressure relief areas should remain closed if the deflagration pressure relief area(s) are designed in accordance with NFPA 68 requirements.

G.11.6.2.2

If there is no designed deflagration pressure relief area(s), or deflagration pressure relief area(s) are not designed in accordance with NFPA 68 requirements, doors and other openings that are not opened in normal operation should be opened before the test and remain open throughout the test.

G.11.6.2.3

NFPA 69 systems do not need to be addressed, as this scenario is not within the scope of NFPA 69 system operation. By performing this LSFT, it is assumed that anyNFPA 69 exhaust system has not mitigated the ignition of gas venting from one or more cells in thermal runaway.

G.11.7 Ignition Method.

G.11.7.1

The ignition method should result in a developed fire condition throughout the enclosure of origin, though the exception is possible where the fire or thermal runaway propagation are limited by physical barriers or fire protection systems installed following applicable codes and standards.

G.11.7.1.1

The ignition method is intended to cause overheating, which can lead to thermal runaways and ignition of flammable gas mixtures vented from cells and nonbattery combustibles, resulting in a developed fire condition.

G.11.7.2

If a developed fire condition is not met, the test should be considered invalid.

G.11.7.2.1

The ignition method should be achieved with one of the following methods:

(5) Diffusion burner
(6) Semi-premixed burner
(7) Premixed burner
(8) Flexible film heaters with supplemental ignition sources

G.11.7.2.2

Ignition sources should be present in the path of flammable gases released due to thermal runaway. They should be present internally and externally to the enclosure of origin and positioned to avoid heating the battery system components.

G.11.7.2.3

If a burner is used, the burner can be considered as the ignition source. Additional ignition sources might not be necessary but should be optionally included.

G.11.7.2.4

Additional ignition sources should be included if flexible film heaters are used.

G.11.7.2.5

Viable ignition sources include spark plugs, glow plugs, spark showers, or pilot.

G.11.8 Abuse Condition.

G.11.8.1

While the abuse condition can be accomplished with a single ignition source, such as external fire or electrical arcing, separating the source for cell overheating and flammable gas ignition production might be easier to implement in some battery system designs. Cell overheating is achieved using an internal or external heater for the battery modules.

G.11.8.2

If a burner is used as the abuse condition, the following factors should be considered:

(3) Premixed burner: Heating would be localized to the burner's footprint, removing under-ventilation concerns. Thermal stress depends on burner design and requires high specificity for consistent applications. It would also be more robust in the face of suppression systems.

(4) Diffusion burner: It is easier to specify consistently (set kW, for example). Flames wrap around module geometry. It is less robust with suppression systems. It is more representative of surrounding combustible fires.

G.11.9 Mitigation Technologies.

G.11.9.1

It is assumed that active technologies intended to mitigate thermal runaways in the enclosure of origin do not prevent a developed fire condition, irrespective of whether they operate as intended. As such, this test is not intended to evaluate active thermal runaway mitigation devices or strategies in the enclosure of origin. Thermal runaway mitigation technologies can be incorporated in all adjacent enclosures but will be deactivated in the enclosure of origin. Fire protection systems installed per applicable codes and standards can be included in all enclosures in the test.

G.11.9.2

It is expected that active thermal runaway mitigation technologies for the unit of origin have been evaluated separately under the UL 9540A unit or installation level test. Active thermal runaway mitigation technologies include direct injection, but do not include systems that would be in place in normal operation like liquid cooling. Mitigation systems and their associated evaluation test are summarized in Table G.11.9.2.

Table G.11.9.2 Mitigation Systems

Mitigation System	Installation Location / Protection Area	Recommended Test Standard
Direct injection of water or other agent	Integrated into the battery module	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Integrated into the battery unit or rack	UL 9540A unit level test
Fire protection systems without applicable codes and standards	Enclosure of origin	UL 9540A installation level test
Single-use, noncontinuous operation systems designed to protect the enclosure of origin	Enclosure of origin	UL 9540A installation level test

G.11.9.3

The developed fire condition is assumed to occur after the operation and dissipation of single-use, noncontinuous operation systems designed to protect the enclosure of origin. For total flooding applications, the entire system must be removed. Continuously operated local protection systems, such as direct injection, involve removing the system from the rack of origin only.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Abid Anwar, Tesla, Inc.

Certified Amending Motion to Reject Second Revision No. 21 including any related portions of First Revisions and First Correlating Revisions

CAM No. 855-36

Recommended Text if Motion Passes:

~~**4.10* Emergency Power Supply Systems (EPSS).**~~

~~Critical safety systems that rely on power shall be provided with reliable EPSS or SEPSS power in accordance with NFPA 110 or NFPA 111.~~

~~**A.4.10**~~
~~At least two sources of power must be provided – one normal supply and one or more of the sources described in 701.12 of *NFPA 70*. Examples of types of combinations of sources by which to fulfill this requirement include, but are not limited to, the following:~~

~~(1) One normal service and a generator set (EPSS) according to 701.12(D) of *NFPA 70*.~~
~~(2) One normal service and a stored energy power supply system (SEPSS) according to N 701.12(E) of *NFPA 70*~~

~~Article 701.12(E)(12) references the requirements of NFPA 855 for fire protection. SEPSS systems are considered ESS systems and should also meet the requirements of the current edition of NFPA 855.~~

~~(3) A separate service if approved by the AHJ according to 701.12(F) of *NFPA 70*.~~
~~(4) Microgrid systems that conforms to SEPSS (an islanded distributed energy system) according to 701.12(H) of *NFPA 70*.~~

~~**4.10.1***~~
~~If EPSS or SEPSS is provided, they shall be Class X, Type 10, Level 2.~~

~~**A.4.10.1**~~
~~The duration of the required EPSS of SEPSS as defined in Class X is time, in hours, as required by the application, code, or user. The HMA is used to determine a credible event and the expected duration of the event. The design of the emergency power supply system is used as part of the engineering analysis (along with HMA, fire risk/explosion risk, and electrical distribution system design) to show that the credible event and the duration of the event is supported by the EPSS. Typically, for systems operating in standby mode, the duration should be a minimum of 24 hours for LIB BESSs. This ensures that the critical safety systems are functional to provide appropriate information to the SME or the first responders. Other references and codes might include the terms *secondary power*, *standby power*, or *auxiliary power*. For safety reliability and survivability, they are assumed to have the same requirements as an EPSS or SEPSS.~~

~~**4.10.2 ESS Design.**~~

~~**4.10.2.1***~~
~~A registered design professional with anEPSS design background shall both evaluate the duration and total load requirements as well as define the specific loads to be served for the power systems.~~

~~**A.4.10.2.1**~~
~~A typical evaluation would include all safety systems functioning in a failure event. Total load would be based on one BESS in failure with a safety margin of one additional unit based on the HMA including the supporting~~

~~explosion, and loss of primary power analysis. This evaluation should be supported by UL 9540A and propagation potential from the large-scale testing. For units interconnected in a row, the sizing of the EPSS should be based on row size.~~

~~**4.10.2.2**~~
~~The design for the EPSS shall be made available to the fire protection engineer (FPE) of record and the AHJ for review and approval.~~

~~**4.10.3***~~
~~EPSS or SEPSS Type 10 requirements shall be permitted to be increased based on the HMA evaluation and a safe critical infrastructure load transfer.~~

~~**A.4.10.3**~~
~~If an EPSS is used, such as standby diesel generators, the transfer time between the loss of power and engagement of the generators might be greater than 10 seconds for critical safe shut down and transfer of the load to and from the grid. A higher type might be acceptable for critical infrastructure equipment and the transfer of power is safely completed. If there is a limited UPS to power the critical safety system until the generator starts up, then a combination of the two systems would still meet the 10-second transfer time of a Type 10 system. This would be determined by the HMA.~~

~~**4.10.4***~~
~~EPSS shall be installed per Section 7.2 of NFPA 110, providing separation and protection such that a failure event doesn't compromise the operation of the system.~~

~~**A.4.10.4**~~
~~EPSS power systems locations should be evaluated as part of the HMA such that a credible event does not compromise the operation of the system.~~

~~**4.10.5***~~
~~Emergency power shall not be required on mechanical ventilation systems for all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries used in ESS in stationary standby service that complies with any of the following:~~

- ~~(1) Comprised of vented cells in systems 600 V dc or less~~
- ~~(2) Comprised of cells or batteries listed to UL1973 in systems 600 V dc or less~~
- ~~(3) Used for control of substations and control or safe shutdown of generating stations under the exclusive control of the electric utility and located outdoors or in building spaces used exclusively for such installations~~
- ~~(4) Used for control of fixed guideway transit or passenger rail systems under the exclusive control of a transit authority and located outdoors or in building spaces used exclusively for such installations~~
- ~~(5) Are less than 60 V dc in telecommunications facilities for installations of communications equipment under the exclusive control of communications utilities and located outdoors or in building spaces used exclusively for such installations~~
- ~~(6) Utilized in uninterruptible power supplies listed to UL 1778, which occupy no more than 10 percent of the floor area on the floor on which they are located~~

~~**A.4.10.5**~~
~~On loss of power to the charging system, all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries essentially cease generation of hydrogen gas. For this reason, interconnection of the mechanical ventilation power to the charging power negates the need for emergency power for the ventilation system.~~

Recommended Text if Motion Fails:

4.10* Emergency Power Supply Systems (EPSS).

Critical safety systems that rely on power shall be provided with reliable EPSS or SEPSS power in accordance with NFPA 110 or NFPA 111.

A.4.10
At least two sources of power must be provided—one normal supply and one or more of the sources described in 701.12 of *NFPA 70*. Examples of types of combinations of sources by which to fulfill this requirement include, but are not limited to, the following:

1) One normal service and a generator set (EPSS) according to 701.12(D) of NFPA 70.
2) One normal service and a stored energy power supply system (SEPSS) according to N 701.12(E) of NFPA 70

   Article 701.12(E)(12) references the requirements of NFPA 855 for fire protection. SEPSS systems are considered ESS systems and should also meet the requirements of the current edition of NFPA 855.

3) A separate service if approved by the AHJ according to 701.12(F) of NFPA 70.
4) Microgrid systems that conforms to SEPSS (an islanded distributed energy system) according to 701.12(H) of NFPA 70.

4.10.1*
If EPSS or SEPSS is provided, they shall be Class X, Type 10, Level 2.

A.4.10.1
The duration of the required EPSS of SEPSS as defined in Class X is time, in hours, as required by the application, code, or user. The HMA is used to determine a credible event and the expected duration of the event. The design of the emergency power supply system is used as part of the engineering analysis (along with HMA, fire risk/explosion risk, and electrical distribution system design) to show that the credible event and the duration of the event is supported by the EPSS. Typically, for systems operating in standby mode, the duration should be a minimum of 24 hours for LIB BESSs. This ensures that the critical safety systems are functional to provide appropriate information to the SME or the first responders. Other references and codes might include the terms *secondary power*, *standby power*, or *auxiliary power*. For safety reliability and survivability, they are assumed to have the same requirements as an EPSS or SEPSS.

4.10.2 ESS Design.

4.10.2.1*
A registered design professional with an EPSS design background shall both evaluate the duration and total load requirements as well as define the specific loads to be served for the power systems.

A.4.10.2.1
A typical evaluation would include all safety systems functioning in a failure event. Total load would be based on one BESS in failure with a safety margin of one additional unit based on the HMA including the supporting explosion, and loss of primary power analysis. This evaluation should be supported by UL 9540A and propagation potential from the large-scale testing. For units interconnected in a row, the sizing of the EPSS should be based on row size.

4.10.2.2
The design for the EPSS shall be made available to the fire protection engineer (FPE) of record and the AHJ for review and approval.

4.10.3*
EPSS or SEPSS Type 10 requirements shall be permitted to be increased based on the HMA evaluation and a safe critical infrastructure load transfer.

A.4.10.3
If an EPSS is used, such as standby diesel generators, the transfer time between the loss of power and engagement of the generators might be greater than 10 seconds for critical safe shut down and transfer of the load to and from the grid. A higher type might be acceptable for critical infrastructure equipment and the transfer of power is safely completed. If there is a limited UPS to power the critical safety system until the generator starts-up, then a combination of the two systems would still meet the 10-second transfer time of a Type 10 system. This would be determined by the HMA.

4.10.4*
EPSS shall be installed per Section 7.2 of NFPA 110, providing separation and protection such that a failure event doesn't compromise the operation of the system.

A.4.10.4
EPSS power systems locations should be evaluated as part of the HMA such that a credible event does not compromise the operation of the system.

4.10.5*
Emergency power shall not be required on mechanical ventilation systems for all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries used in ESS in stationary standby service that complies with any of the following:

1) Comprised of vented cells in systems 600 V dc or less
2) Comprised of cells or batteries listed to UL1973 in systems 600 V dc or less
3) Used for control of substations and control or safe shutdown of generating stations under the exclusive control of the electric utility and located outdoors or in building spaces used exclusively for such installations
4) Used for control of fixed guideway transit or passenger rail systems under the exclusive control of a transit authority and located outdoors or in building spaces used exclusively for such installations
5) Are less than 60 V dc in telecommunications facilities for installations of communications equipment under the exclusive control of communications utilities and located outdoors or in building spaces used exclusively for such installations
6) Utilized in uninterruptible power supplies listed to UL 1778, which occupy no more than 10 percent of the floor area on the floor on which they are located

A.4.10.5
On loss of power to the charging system, all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries essentially cease generation of hydrogen gas. For this reason, interconnection of the mechanical ventilation power to the charging power negates the need for emergency power for the ventilation system.

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Abid Anwar, Tesla, Inc.

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 9	
CAM No. 855-38	**Recommended Text if Motion Passes:** **4.12* Vehicle to Grid (V2G) Usage.** The use of parked EVs ~~as ESS~~ to power commercial or industrial buildings or feed power back to the grid shall both use power conversion equipment that is listed to UL 9741 and be installed in accordance with manufacturer's instructions and *NFPA 70*. **A.4.12** Electric vehicles can be used ~~as ESS~~ to supply power for backup use and a variety of grid support functions. Vehicle to Grid (V2G) applications typically require permission to operate (PTO) as they run in parallel with the utility. In many respects, these installations are similar to mobile ESS used in a stationary situation. They are mobile battery packs that are being charged and discharged at a specific, permitted, and interconnected location, and these facilities can easily reach multimegawatt scale. V2G power conversion equipment that meets UL 9741 also requires that any connected ESS batteries be listed to UL 9540 and UL 1973. Article 625 of *NFPA 70* is the primary relevant section related to the installation of premise equipment for EV power transfer. This article requires listing of all power conversion equipment to or from the vehicle. If the equipment is bi-directional (i.e., capable of V2x), UL 9741 is the likely listing standard. When used as V2B (vehicle to business) or V2H (vehicle to home), it is considered an optional standby system, and also covered by Article 702. Where used as V2G, it also requires compliance with Article 705.
	Recommended Text if Motion Fails: **4.12* Vehicle to Grid (V2G) Usage.** The use of parked EVs as ESS to power commercial or industrial buildings or feed power back to the grid shall both use power conversion equipment that is listed to UL 9741 and be installed in accordance with manufacturer's instructions and *NFPA 70*. **A.4.12** Electric vehicles can be used as ESS to supply power for backup use and a variety of grid support functions. Vehicle to Grid (V2G) applications typically require permission to operate (PTO) as they run in parallel with the utility. In many respects, these installations are similar to mobile ESS used in a stationary situation. They are mobile battery packs that are being charged and discharged at a specific, permitted, and interconnected location, and these facilities can easily reach multimegawatt scale. V2G power conversion equipment that meets UL 9741 also requires that any connected ESS batteries be listed to UL 9540 and UL 1973. Article 625 of *NFPA 70* is the primary relevant section related to the installation of premise equipment for EV power transfer. This article requires listing of all power conversion equipment to or from the vehicle. If the equipment is bi-directional (i.e., capable of V2x), UL 9741 is the likely listing standard. When used as V2B (vehicle to business) or V2H (vehicle to home), it is considered an optional standby system, and also covered by Article 702. Where used as V2G, it also requires compliance with Article 705.

AMENDMENT BALLOT No. 855-38

Technical Committee on Energy Storage Systems

NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 855-38 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

4.12* Vehicle to Grid (V2G) Usage.

The use of parked EVs ~~as ESS~~ to power commercial or industrial buildings or feed power back to the grid shall both use power conversion equipment that is listed to UL 9741 and be installed in accordance with manufacturer's instructions and *NFPA 70*.

A.4.12

Electric vehicles can be used ~~as ESS~~ to supply power for backup use and a variety of grid support functions. Vehicle to Grid (V2G) applications typically require permission to operate (PTO) as they run in parallel with the utility. In many respects, these installations are similar to mobile ESS used in a stationary situation. They are mobile battery packs that are being charged and discharged at a specific, permitted, and interconnected location, and these facilities can easily reach multimegawatt scale.

V2G power conversion equipment that meets UL 9741 also requires that any connected ESS batteries be listed to UL 9540 and UL 1973.

Article 625 of *NFPA 70* is the primary relevant section related to the installation of premise equipment for EV power transfer. This article requires listing of all power conversion equipment to or from the vehicle. If the equipment is bi-directional (i.e., capable of V2x), UL 9741 is the likely listing standard. When used as V2B (vehicle to business) or V2H (vehicle to home), it is considered an optional standby system, and also covered by Article 702. Where used as V2G, it also requires compliance with Article 705.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 855-38 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No previous edition text

NFPA 855, *Installation of Stationary Energy Storage Systems*
Submitter: Abid Anwar, Tesla, Inc.

Certified Amending Motion to Reject Second Revision No. 154

CAM No. 855-41

Recommended Text if Motion Passes:

~~**4.10.5***~~
~~Emergency power shall not be required on mechanical ventilation systems for all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries used in ESS in stationary standby service that complies with any of the following:~~

~~(1) Comprised of vented cells in systems 600 V dc or less~~
~~(2) Comprised of cells or batteries listed to UL1973 in systems 600 V dc or less~~
~~(3) Used for control of substations and control or safe shutdown of generating stations under the exclusive control of the electric utility and located outdoors or in building spaces used exclusively for such installations~~
~~(4) Used for control of fixed guideway transit or passenger rail systems under the exclusive control of a transit authority and located outdoors or in building spaces used exclusively for such installations~~
~~(5) Are less than 60 V dc in telecommunications facilities for installations of communications equipment under the exclusive control of communications utilities and located outdoors or in building spaces used exclusively for such installations~~
~~(6) Utilized in uninterruptible power supplies listed to UL 1778, which occupy no more than 10 percent of the floor area on the floor on which they are located~~

~~**A.4.10.5**~~

~~On loss of power to the charging system, all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries essentially cease generation of hydrogen gas. For this reason, interconnection of the mechanical ventilation power to the charging power negates the need for emergency power for the ventilation system.~~

Recommended Text if Motion Fails:

4.10.5*
Emergency power shall not be required on mechanical ventilation systems for all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries used in ESS in stationary standby service that complies with any of the following:

1) Comprised of vented cells in systems 600 V dc or less
2) Comprised of cells or batteries listed to UL1973 in systems 600 V dc or less
3) Used for control of substations and control or safe shutdown of generating stations under the exclusive control of the electric utility and located outdoors or in building spaces used exclusively for such installations
4) Used for control of fixed guideway transit or passenger rail systems under the exclusive control of a transit authority and located outdoors or in building spaces used exclusively for such installations
5) Are less than 60 V dc in telecommunications facilities for installations of communications equipment under the exclusive control of communications utilities and located outdoors or in building spaces used exclusively for such installations
6) Utilized in uninterruptible power supplies listed to UL 1778, which occupy no more than 10 percent of the floor area on the floor on which they are located

	A.4.10.5 On loss of power to the charging system, all types of lead-acid, aqueous nickel-based, and aqueous metal-air batteries essentially cease generation of hydrogen gas. For this reason, interconnection of the mechanical ventilation power to the charging power negates the need for emergency power for the ventilation system.

NFPA 1850, ***Standard on Protective Ensembles for Structural and Proximity Firefighting and Self-Contained Breathing Apparatus (SCBA)***

Submitter: Jeff Knobbe, Alameda County Fire Department and Bauer Compressor Inc.

Certified Amending Motion to Reject an Identifiable Part of Second Revision No. 36

CAM No. 1850-10

Recommended Text if Motion Passes:

11.1.1.1*

Verification of the organization or ISP shall include advanced inspection, advanced cleaning, sanitization, and advanced repairs of garment elements only as specified in Table 11.1.1.1.

Table 11.1.1.1 ISP and Organization Verification Designation Criteria

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced cleaning	Required	Required
Heavy metals cleaning efficiency	≥70%~~50%~~ for average of all metals	≥70%~~50%~~ for average of all metals
Semivolatile organic compound cleaning efficiency	≥70%~~50%~~ for average of all compounds	≥70%~~50%~~ for average of all compounds
Biological sanitization effectiveness — *Staphylococcus aureus*	3 log reduction or better	3 log reduction or better
Biological sanitization effectiveness — *Klebsiella pneumoniae*	3 log reduction or better	3 log reduction or better
Advanced inspection	All ensembles and ensemble elements of structural and proximity firefighter protective clothing	Not allowed
Advanced repair	At a minimum for verification of advanced repairs, repair of outer shells and thermal barriers is required	No repairs allowed
Advanced repairs for moisture barriers	ISPs have a choice of which moisture barriers to verify	Not allowed

Recommended Text if Motion Fails:

11.1.1.1*

Verification of the organization or ISP shall include advanced inspection, advanced cleaning, sanitization, and advanced repairs of garment elements only as specified in Table 11.1.1.1.

Table 11.1.1.1 ISP and Organization Verification Designation Criteria

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced cleaning	Required	Required
Heavy metals cleaning efficiency	≥50% for average of all metals	≥50% for average of all metals

Semivolatile organic compound cleaning efficiency	≥50% for average of all compounds	≥50% for average of all compounds
Biological sanitization effectiveness — *Staphylococcus aureus*	3 log reduction or better	3 log reduction or better
Biological sanitization effectiveness — *Klebsiella pneumoniae*	3 log reduction or better	3 log reduction or better
Advanced inspection	All ensembles and ensemble elements of structural and proximity firefighter protective clothing	Not allowed
Advanced repair	At a minimum for verification of advanced repairs, repair of outer shells and thermal barriers is required	No repairs allowed
Advanced repairs for moisture barriers	ISPs have a choice of which moisture barriers to verify	Not allowed

AMENDMENT BALLOT No. 1850-10

Technical Committee on Protective Ensembles for Structural and Proximity Firefighting

NFPA 1850, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural and Proximity Firefighting and Open-Circuit Self-Contained Breathing Apparatus (SCBA)*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 1850-10 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

11.1.1.1*

Verification of the organization or ISP shall include advanced inspection, advanced cleaning, sanitization, and advanced repairs of garment elements only as specified in Table 11.1.1.1.

Table 11.1.1.1 ISP and Organization Verification Designation Criteria

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced cleaning	Required	Required
Heavy metals cleaning efficiency	≥70%~~50%~~ for average of all metals	≥70%~~50%~~ for average of all metals
Semivolatile organic compound cleaning efficiency	≥70%~~50%~~ for average of all compounds	≥70%~~50%~~ for average of all compounds
Biological sanitization effectiveness — *Staphylococcus aureus*	3 log reduction or better	3 log reduction or better
Biological sanitization effectiveness — *Klebsiella pneumoniae*	3 log reduction or better	3 log reduction or better

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced inspection	All ensembles and ensemble elements of structural and proximity firefighter protective clothing	Not allowed
Advanced repair	At a minimum for verification of advanced repairs, repair of outer shells and thermal barriers is required	No repairs allowed
Advanced repairs for moisture barriers	ISPs have a choice of which moisture barriers to verify	Not allowed

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 1850-10 by the NFPA membership by vote at Tech Session, the recommended text (i.e. previous edition text) is shown clean below.

11.1.1.1*

Verification of the organization or ISP shall include advanced inspection, advanced cleaning, sanitization, and advanced repairs of garment elements only as specified in Table 11.1.1.1.

Table 11.1.1.1 ISP and Organization Verification Designation Criteria

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced cleaning	Required	Required
Biological sanitization effectiveness — *Staphylococcus aureus*	3 log reduction or better	3 log reduction or better
Biological sanitization effectiveness — *Klebsiella pneumoniae*	3 log reduction or better	3 log reduction or better
Advanced inspection	All ensembles and ensemble elements of structural and proximity firefighter protective clothing	Not allowed
Advanced repair	At a minimum for verification of advanced repairs, repair of outer shells and thermal barriers is required	No repairs allowed

Function/Capability	Verified ISP or Verified Organization	Verified Cleaner
Advanced repairs for moisture barriers	ISPs have a choice of which moisture barriers to verify	Not allowed

NFPA 1850, ***Standard on Protective Ensembles for Structural and Proximity Firefighting and Self-Contained Breathing Apparatus (SCBA)***

Submitter: Jeff Knobbe, Alameda County Fire Department and Bauer Compressor, Inc.

Certified Amending Motion to Return Standard	
CAM No. 1850-11	**Recommended Text if Motion Passes:** Standard returns in entirety
	Recommended Text if Motion Fails: Entire standard as recommended by the Technical Committee and Correlating Committee

NFPA 1850, ***Standard on Protective Ensembles for Structural and Proximity Firefighting and Self-Contained Breathing Apparatus (SCBA)***

Submitter: Jeff Knobbe, Alameda County Fire Department and Bauer Compressor, Inc.

Certified Amending Motion to Reject Second Revision No. 55	
CAM No. 1850-13	**Recommended Text if Motion Passes:** **11.3.7.1*** The cleaning process shall demonstrate a 70~~50~~ percent or greater average cleaning efficiency for the average of all semivolatile organic compounds and the average of all heavy metals separately.
	Recommended Text if Motion Fails: **11.3.7.1*** The cleaning process shall demonstrate a 50 percent or greater average cleaning efficiency for the average of all semivolatile organic compounds and the average of all heavy metals separately.

AMENDMENT BALLOT No. 1850-13

Technical Committee on Protective Ensembles for Structural and Proximity Firefighting

NFPA 1850, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural and Proximity Firefighting and Open-Circuit Self-Contained Breathing Apparatus (SCBA)*

June 19-20, 2025

IF YOU AGREE TO SUPPORT AMENDMENT 1850-13 as recommended by the NFPA membership by vote at Tech Session, the recommended text reads as follows *(changes shown legislatively to the Second Draft)*:

11.3.7.1*

The cleaning process shall demonstrate a 70~~50~~ percent or greater average cleaning efficiency for the average of all semivolatile organic compounds and the average of all heavy metals separately.

IF YOU DISAGREE WITH THE RECOMMENDATION FOR AMENDMENT 1850-13 by the NFPA membership by vote at Tech Session, and no previous edition text exists, the text supported by the membership vote is simply deleted.

No Previous Edition Text

*Note: Related text proposed as Annex 11.3.7.1 will also be deleted editorially.