



NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

Instructions on Reviewing 2020 NEC Changes from 2017 and Accessing the Archived Revision Information

1. Identify changes to the 2020 NFPA 70 – NEC Document by reviewing the hard copy or viewing through NFPA LiNK for “Change Markers” (screenshots from NFPA LiNK – Subscription required)

The screenshot shows the NFPA LiNK interface for Article 702.4 Capacity and Rating. The left sidebar lists the article sections, with 702.4 Capacity and Rating selected. The main content area displays the text for 702.4 Capacity and Rating. The text is as follows:

702.4 Capacity and Rating.

(A) Available Fault Current.
Optional standby system equipment shall be suitable for the available fault current at its terminals.

(B) System Capacity.

(1) Manual Transfer Equipment.
Where manual transfer equipment is used, an optional standby system shall have adequate capacity and rating for the supply of all equipment intended to be operated at one time. The user of the optional standby system shall be permitted to select the load connected to the system.

(2) Automatic Transfer Equipment.
Where automatic transfer equipment is used, an optional standby system shall comply with **702.4(B)(2)(a) or (B)(2)(b)** in accordance with Article 220 or by another approved method.

(a) *Full Load.* The standby source shall be capable of supplying the full load that is transferred by the automatic transfer equipment.

(b) *Load Management.* Where a system is employed that will automatically manage the connected load, the standby source shall have a capacity sufficient to supply the maximum load that will be connected by the load management system.

** Δ indicates a section has a change made (see the highlighted text)

** Highlighted text indicates where changes have been made.

NFPA Intranet | NFPA 70®: National Electrical Code | TerraView™ | NFPA LINK™ - 2020 NFPA-70 - C

link.nfpa.org/publications/70/2020/chapters/7/articles/702#ID000700008904

2020 NFPA-70 > Chapter 7 – Special Conditions > Article 702 Optional Standby Systems

Chapter 7 – Special Conditions

Article 702 Optional Standby Systems

Part I. General

- 702.1 Scope.
- 702.2 Definition.
- 702.4 Capacity and Rating.**
- 702.5 Transfer Equipment.**
- 702.6 Signals.
- 702.7 Signs.

Part II. Wiring

- 702.10 Wiring Optional Standby Systems.
- 702.11 Portable Generator Grounding.
- 702.12 Outdoor Generator Sets.

702.5 Transfer Equipment.

N (A) General.

Transfer equipment shall be required for all standby systems subject to the requirements of this article and for which an electric utility supply is either the normal or standby source. Transfer switches shall not be permitted to be reconditioned.

Exception: Temporary connection of a portable generator without transfer equipment shall be permitted where conditions of maintenance and supervision ensure that only qualified persons service the installation and where the normal supply is physically isolated by a lockable disconnecting means or by disconnection of the normal supply conductors.

N (B) Meter-Mounted Transfer Switches.

Transfer switches installed between the utility meter and the meter enclosure shall be listed meter-mounted transfer switches and shall be approved. Meter-mounted transfer switches shall be of the manual type unless rated as determined by **702.4(B)(2)**.

Informational Note: For more information, see UL 1008M, *Transfer Switch Equipment, Meter Mounted*.

N (C) Documentation.

In other than dwelling units, the short-circuit current rating of the transfer equipment, based on the specific overcurrent protective device type and settings protecting the transfer equipment, shall be field marked on the exterior of the transfer equipment.

N (D) Inadvertent Interconnection.

Transfer equipment shall be suitable for the intended use and shall be listed, designed, and installed

** **N** Symbol indicates the entire section is new.

- Go to www.nfpa.org/70. The NFPA codes and standards development system can be used with most of the recent versions of Google Chrome, Firefox and Internet Explorer.

The screenshot shows the NFPA website interface. At the top, there is a navigation bar with the NFPA logo and the tagline "The leading information and knowledge resource on fire, electrical and related hazards". Below this is a red navigation menu with categories: CODES & STANDARDS, ELECTRICAL SOLUTIONS, NEWS & RESEARCH, TRAINING & CERTIFICATION, PUBLIC EDUCATION, and MEMBERSHIP. The main content area features a large banner for "CODES & STANDARDS" and a sub-breadcrumb: "Codes & Standards / All codes & standards / List of NFPA codes & standards / NFPA 70".

The main heading is "NFPA 70® National Electrical Code®". Below this, it states: "Adopted in all 50 states, NFPA 70, National Electrical Code (NEC) is the benchmark for safe electrical design, installation, and inspection to protect people and property from electrical hazards." The current edition is listed as "Current Edition: 2020". There are buttons for "BUY NFPA 70®", "SIGN IN TO NFCS", and "FREE ACCESS".

At the bottom of the page, there is a section titled "Current & Prior Editions" with a dropdown menu showing "2020 Edition" and a "SELECT EDITION" button. Below this is a section for "Tentative Interim Amendment (TIA)" with a table structure:

Proposed Amendments	Closing Date	Format/Size
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3. Scroll down to “**Archived Revision Information**” for the 2020 NEC and click on “**VIEW**” for First Draft Report.

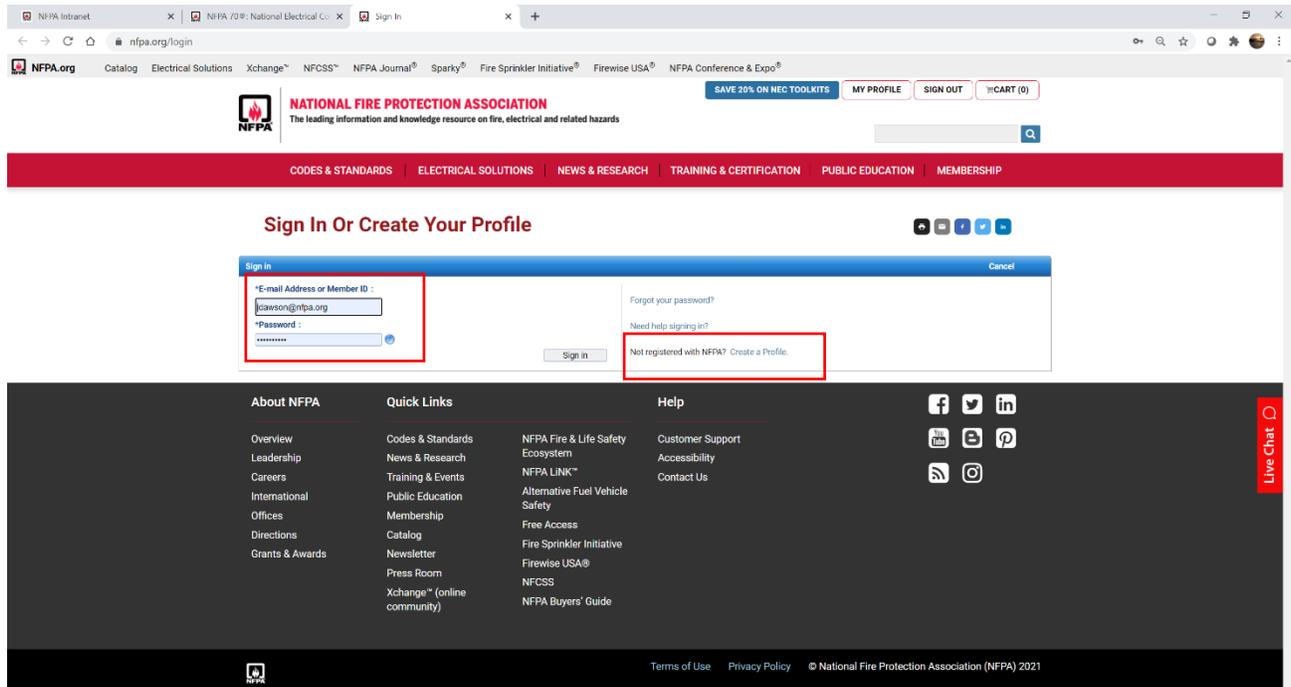
The screenshot shows the NFPA 70 website interface. At the top, there is a navigation bar with the NFPA 70 logo and buttons for 'SIGN IN TO NFCS' and 'FREE ACCESS'. Below this is a dark navigation menu with options: 'Current & Prior Editions', 'Next Edition', 'Technical Committee', 'Ask a Technical Question', 'News', 'Purchase Products & Training', and 'Related Products'. The main content area features a section titled 'Archived Revision Information' in a yellow box. Under this section, there are three sub-sections: 'First Draft', 'Second Draft', and 'Motions Committee Report (NITMAM)'. Each sub-section contains a table with columns for 'Type', 'Document', and 'Format/Size'. In the 'First Draft' section, the 'First Draft Report' row has a 'VIEW' button highlighted with a red box. The 'Second Draft' section also has a 'VIEW' button. The 'Motions Committee Report (NITMAM)' section is currently empty.

Type	Document	Format/Size
First Draft	First Draft Report	VIEW

Type	Document	Format/Size
Second Draft	Second Draft Report	VIEW

Type	Document	Format/Size
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4. Sign in to your NFPA profile or if first time user, create your NFPA profile. NFPA membership is optional when using the Codes and Standards Development platform, but a log-in is required.



5. Once signed in you will be directed to the NFPA Standards Development site. Use the Table of Contents in the left window to navigate.

Public Reports

NFPA 70

NFPA STANDARDS DEVELOPMENT SITE
FIRST DRAFT REPORT
Released Version Closing Date: July 06, 2018

NOTE: All Public Comment must be received by 5:00 pm EST/EDST on the published Closing Date.
Welcome jdawson@nfpa.org!

NFPA 70®, National Electrical Code®, 2017 Edition

Table of Contents: NFPA 70

- + [Article 90 Introduction](#)
- + [Chapter 1 General](#)
- + [Chapter 2 Wiring and Protection](#)
- + [Chapter 3 Wiring Methods and Materials](#)
- + [Chapter 4 Equipment for General Use](#)
- + [Chapter 5 Special Occupancies](#)
- + [Chapter 6 Special Equipment](#)
- + [Chapter 7 Special Conditions](#)
- + [Chapter 8 Communications Systems](#)
- + [Chapter 9 Tables](#)
- + [Informative Annex A Product Safety Standards](#)

IMPORTANT NOTE: If you receive errors when submitting Public Inputs or Public Comments, please try using a different browser or browser version.

Welcome to the NFPA Standards Development Site

This is the entry point for anyone who wants to participate in the NFPA Standards development process. The first stage of the development process is called the Input stage, as described in the Regulations Governing the Development of NFPA Standards at Section 4.3. In this stage, you can propose changes to an NFPA Standard that the responsible Technical Committee (and, where applicable, Correlating Committee) will consider when developing the next edition of a standard. These proposed changes are called Public Inputs, which you can create and submit electronically in this section of the site.

In this section, you can submit a Public Input to:

- Add New Section(s)
- Revise Existing Section(s)
- Create a Global revision to add, modify, or delete a word or phrase throughout the entire document.

Click on the appropriate icon above to get instructions on how to begin submitting your Public Input.

When you are ready to begin the Public Input process, please utilize the Table of Contents on the left side of this screen to navigate to the portion of the Standard where you want to propose a change.

Once initiated all Public Inputs are auto saved throughout the completion process. You will be given an opportunity to submit each Public Input (proposed change) to NFPA once you have completed all the required sections. Additionally, you may delete your submitted Public Input up until the Public Input closing date, as displayed on the top of the screen.

You may also elect to leave a partially completed Public Input in the system until you are ready to complete and submit it to NFPA. However, any un-submitted Public Input will be automatically deleted from the system on the Public Input closing date.

What's Next?

Once the Public Input closing date has passed, your submitted Public Input will be forwarded to the responsible Technical Committee to be addressed at a Public Input meeting where the committee reviews all Public Inputs and develops the First Draft of the new or revised standard. All Technical Committee meetings are open to the public. For more information on committee activities and other information related to the standard of interest to you, please visit the "Doc Info" pages at www.nfpa.org/aboutthecodes, and select the appropriate standard from the List of NFPA Codes & Standards.

After the completion of the Public Input meeting and the balloting of the resulting First Draft by the Technical Committee (and, where applicable

6. Expand Chapters, Articles, Sections and First Subdivisions to locate sections of interest that have indicated changes. Click on any link to get to beginning of Chapter, Article, Section or First Subdivision, the “+” symbol expands sections below.

NOTE: We are going to use 702.4 and 702.5 noted in NFPA LiNK above as examples.

The screenshot displays the NFPA Standards Development Site for the 2017 Edition of the National Electrical Code. The page is titled "FIRST DRAFT REPORT" and includes a closing date of July 06, 2018. A navigation menu on the left lists various sections, with a red box highlighting the "702.4 Capacity and Rating" section and a red arrow pointing to it. The main content area features an "IMPORTANT NOTE" regarding browser versions and a "Welcome to the NFPA Standards Development Site" section. This section provides instructions on how to submit public input, including options to add new sections, revise existing sections, or create global revisions. It also outlines the next steps in the process, such as attending a public input meeting and submitting a public comment.

7. By clicking on 1st subdivision “702.4” it opens up that requirement and shows the First Revision (FR) in legislative text. The link identified as “FR-7603” takes you to the committee action. The link identified as “Pls” takes you to the Public Input(s) that were received with proposed changes to this section. Both of these links will open up a new page.

The screenshot shows the NFPA 70 website interface. The left sidebar contains a table of contents with a red arrow pointing to the link for "702.4 Capacity and Rating". The main content area displays the text for "702.4 Capacity and Rating". Two red boxes highlight the "Pls [1]" link and the "FR-7603" link, which is labeled as "Hide Legislative".

NFPA 70[®], National Electrical Code[®], 2017 Edition

- + Chapter 2 Wiring and Protection
- + Chapter 3 Wiring Methods and Materials
- + Chapter 4 Equipment for General Use
- + Chapter 5 Special Occupancies
- + Chapter 6 Special Equipment
- Chapter 7 Special Conditions
 - + 700 Emergency Systems
 - + 701 Legally Required Standby Systems
 - 702 Optional Standby Systems
 - Part 1, General
 - 702.1 Scope.
 - + 702.2 Definition.
 - + 702.4 Capacity and Rating.
 - 702.4(A) Available Fault Current.
 - + 702.4(B) System Capacity.
 - 702.5 Transfer Equipment.
 - + 702.6 Signals.
 - + 702.7 Signs.

8. The “**FR-7603**” link shows the Technical Committee Action, supporting statement from the Committee, and the ballot results.

The screenshot shows a web browser window with the URL `submittalsarchive.nfpa.org/TerraViewWeb/ViewerPage.jsp?id=70-2017.ditamap&pubStatus=FDR`. The page content is as follows:

Original Committee Hide Deleted

(A) Available Short-Circuit Fault Current.
Optional standby system equipment shall be suitable for the ~~maximum~~ available ~~short-circuit fault~~ current at its terminals.

Submitter Information Verification

Submitter Full Name: NEC-CMP Panel 13
Committee:
Submission Date: Tue Jan 09 08:32:56 EST 2018

Committee Statement

Committee Statement: This revision is part of a global effort in this code to correlate the use of the terms, short circuit current, fault current, and the use of the terms available and maximum.
This revision is based upon favorable action on public inputs 1247 and 1248 under the purview of CMP-10. Action on these public inputs to add a new definition of "Fault Current" and a new definition for "Available Fault Current" will be reviewed by the committee during the public comment stage.
CMP-13 requests that the correlating committee review the actions on all related public inputs and provide correlating committee notes where necessary.

Response Message: FR-7603-NFPA 70-2018
[Public Input No. 1290-NFPA 70-2017 \[Section No. 702.4\(A\)\]](#)

Ballot Results

✔ This item has passed ballot

22 Eligible Voters
0 Not Returned
22 Affirmative All
0 Affirmative with Comments

Close

9. The “**Pls[1]**” link takes you to the actual public input submitted by the proponent. The number in brackets [1] indicates the number of Public Inputs submitted in this section.

This page shows the proposed change(s), the “Statement of Problem and Substantiation” for the change, and any related comments if there are any.

Public Input No. 1290-NFPA 70-2017 [Section No. 702.4(A)]

Original Hide Markup

(A) Available ~~Short-Circuit Fault~~ Current.
Optional standby system equipment shall be suitable for the ~~maximum~~-available ~~short-circuit-fault~~ current at its terminals.

Statement of Problem and Substantiation for Public Input

The Fault Current Working Group was formed to support the Correlating Committee's Usability Task Group. Members of the Fault Current Working Group included Scott Blizard, Jim Dollard, Carl Fredericks, Jeff Hidaka, Chris Jensen, Alan Manche, and Vince Saporita. The goal of the Fault Current Working Group was to analyze the usage of the terms "short-circuit" and "fault" throughout the NEC, and submit Public Inputs, as appropriate, to improve clarity, consistency, and usability. While "short-circuit" and "fault" have been used interchangeably throughout the NEC (and the whole electrical industry), there are subtle differences between the two. This has resulted in confusion and a lack of consistency. Thus, numerous related Public Inputs have been submitted by the Working Group. The definition of "Fault Current, Available (Available Fault Current)" is taken from SR8 of NFPA70E-2018. The definition ("The largest amount of current capable of being delivered at a point on the system during a short-circuit condition") clarifies that "available fault current" is the highest short-circuit current that can flow at a particular point in the electrical system. The Informational Note, also taken from SR8 of NFPA70E-2018, ("A short-circuit can occur during abnormal conditions such as a fault between circuit conductors or a ground fault. See Figure 100.0") provides an example of the relationship between "short-circuit" and "fault". Figure 100.0, also from SR8 of NFPA70E-2018, helps explain the difference between "available fault current", "short-circuit current rating", and "interrupting rating". "Available short-circuit current" and "short-circuit current" are changed to "available fault current" for improved consistency. "Maximum" is deleted in front of "maximum available fault current" (and "maximum available short-circuit current") because the new definition of "available fault current" clearly includes the maximum (largest). The only exceptions, which remain unchanged, are in 250.4(A)(5) and 250.4(B)(3), where the word "maximum" is still appropriate and is necessary for a complete understanding of the requirement. Equipment and component fault current ratings, short-circuit ratings, and short-circuit withstand ratings are changed to "short-circuit current ratings", in agreement with equipment and component listing standards. The only exceptions, which remain unchanged, are for switch "fault closing ratings", also to be in agreement with existing equipment and component listing standards. Finally, "Short-circuit current calculation" is replaced with "available fault current calculation", improving consistency.

Related Public Comments for This Document

Related Comment	Relationship
Open Public Input No. 1246-NFPA 70-2017 [Definition: Coordination, Selective (Selective Coordination...)]	PI from Fault Current Working Group
Open Public Input No. 1247-NFPA 70-2017 [New Definition after Definition: Externally Operable.]	PI from Fault Current Working Group
Open Public Input No. 1248-NFPA 70-2017 [New Definition after Definition: Externally Operable.]	PI from Fault Current Working Group
Open Public Input No. 1249-NFPA 70-2017 [Section No. 110.24(A)]	PI from Fault Current Working Group
Open Public Input No. 1250-NFPA 70-2017 [Section No. 110.24(B)]	PI from Fault Current Working Group
Open Public Input No. 1251-NFPA 70-2017 [Section No. 225.52(B)]	PI from Fault Current Working Group
Open Public Input No. 1252-NFPA 70-2017 [Section No. 230.82]	PI from Fault Current Working Group

Close

10. The two significant code development steps in the NFPA codes and standards revision process are the First and Second Draft meetings with the resultant First and Second Draft Reports (FDR and SDR). Actions taken on Public Comments during the Second Draft meetings are documented in the Second Draft Report.

The changes accepted at the Second Draft Meeting is what is published, and may have made some changed from the approved First Draft.

Access to this report is from the NEC Document Information Page at the same location as the First Draft Report link. Access to and navigating through the Second Draft Report is done in the same manner as in the First Draft Report.

The screenshot shows a web browser window displaying the NFPA 70 website. The page title is "Archived Revision Information". Below the title, there are three sections: "First Draft", "Second Draft", and "Motions Committee Report (NITMAM)". Each section contains a table with columns for "Type", "Document", and "Format/Size". The "Second Draft" section has a "VIEW" button highlighted with a red box.

Type	Document	Format/Size
First Draft	First Draft Report	VIEW

Type	Document	Format/Size
Second Draft	Second Draft Report	VIEW

Type	Document	Format/Size
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For more information or questions, contact:

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