



**SAFETY & HEALTH
CONFERENCE**
FOR ALL SAFETY PROFESSIONALS
2024



Building a Safer Future: NFPA and MCAA Join Forces for Electrical Safety



National Fire Protection
Association



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2024



Introduction to NFPA

Founded in 1896 (127 years)

Global Non-Profit Organization (Self-Funded)

Develops consensus-based codes and standards

Conducts research, training, and education



Mike Gillette

NFPA Global Business Solutions
TSM – USA

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Building a Safer Future: NFPA and MCAA Join Forces for Electrical Safety





IT'S A BIG WORLD.

LET'S PROTECT IT TOGETHER:

Never Compromise

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MCAA
Mechanical Contractors Association of America

NFPA 70E®
**EMPOWERING ELECTRICAL
SAFETY FOR MECHANICAL
SERVICE TOGETHER**



Initial Benefits

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This arrangement between NFPA and MCAA is designed to help members:

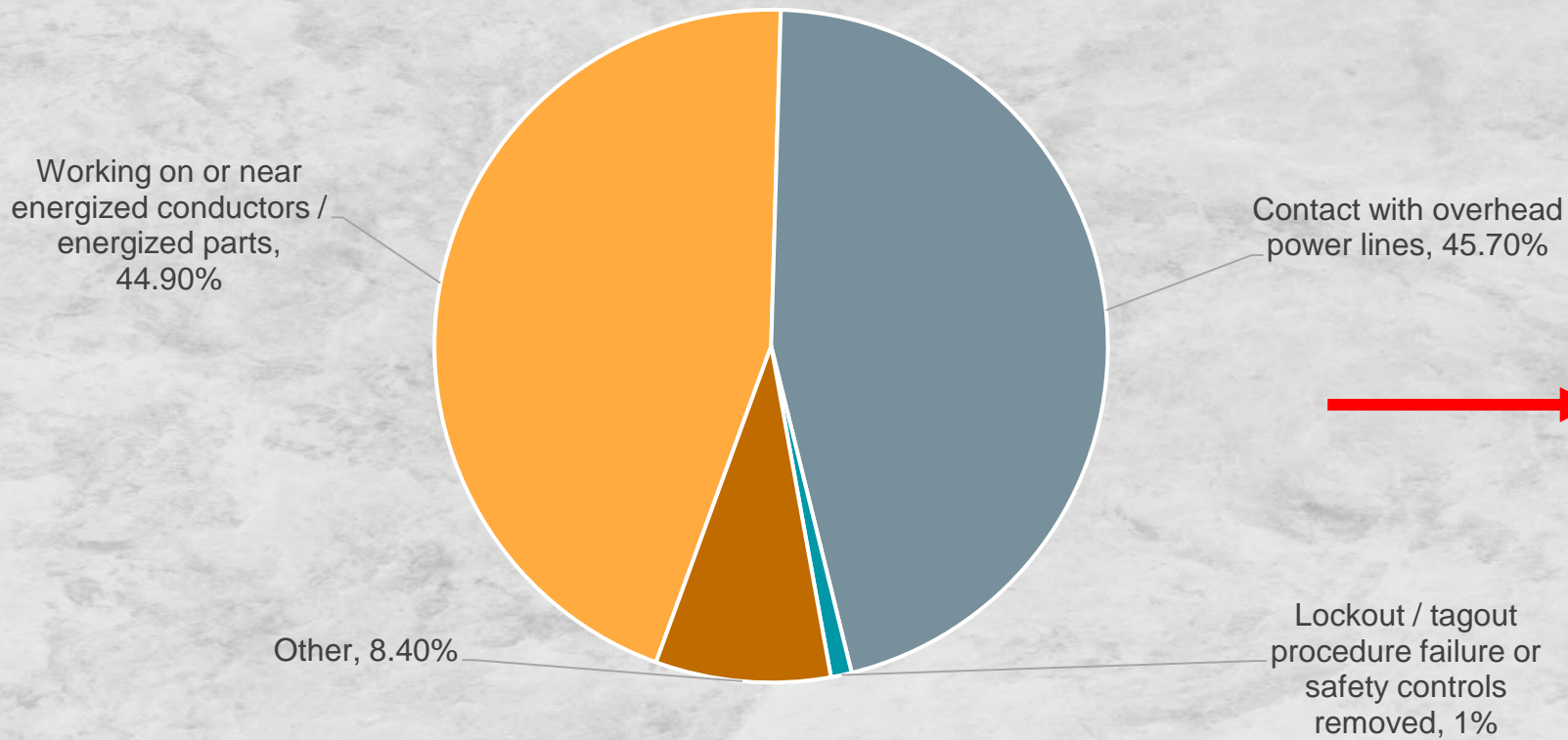
- Most importantly, keep their employees safe from an electrical safety perspective
- Avoid costly OSHA citations



Employee Exposure



**Cause Of Electrical Fatality, All Workers,
2011 – 2021**



Occupation	Fatalities
Electricians	182
Laborers, except construction	121
Construction laborers	108
Electrical power installers & repairers	102
Occupations not reported	70
Tree trimming occupations	64
Electricians' apprentices	39
Heating, air conditioning, and refrigeration mechanics	34
Painters, construction and maintenance	33
Roofers	26
Machinery maintenance occupations	23
Truck drivers, heavy	23

Data provided the U.S. Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) via the Electrical Safety Foundation International (ESFI).

Employee Exposure

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Courtesy of Tyndale Company, Inc.

The Electrical Cycle of Safety

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- NFPA 70[®] *National Electrical Code*[®] (NEC[®])
 - Provides requirements for safe design, installation, and inspection
- NFPA 70B *Standard for Electrical Equipment Maintenance*
 - Provides requirements to help maintain functionality and safety of equipment after installation
- NFPA 70E[®] *Standard for Electrical Safety in the Workplace*[®]
 - Helps keep personnel safe while performing electrical installation and maintenance, while also meeting OSHA requirements

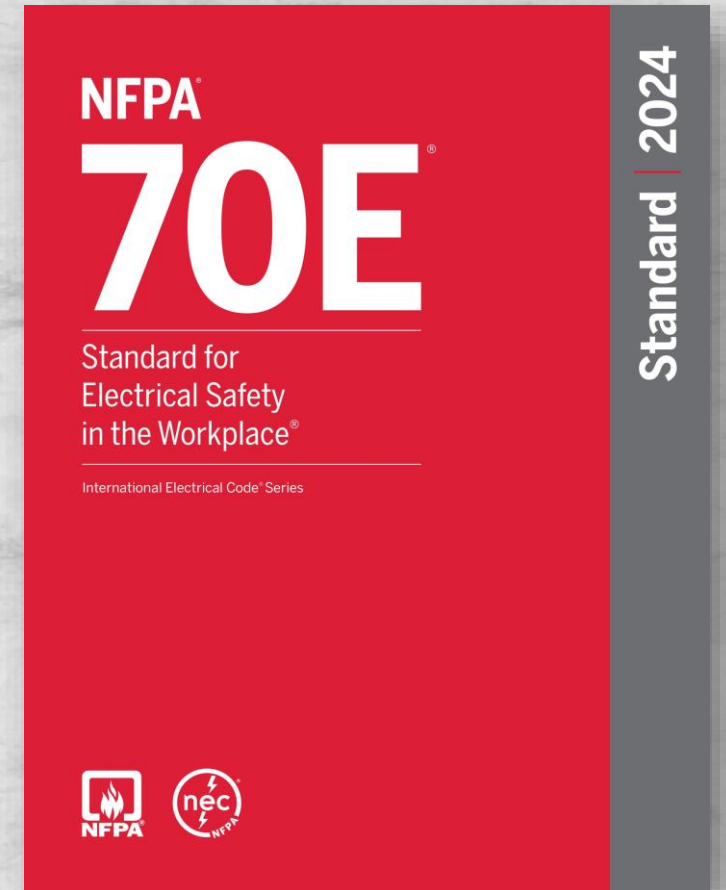


NFPA 70E® Training Requirements

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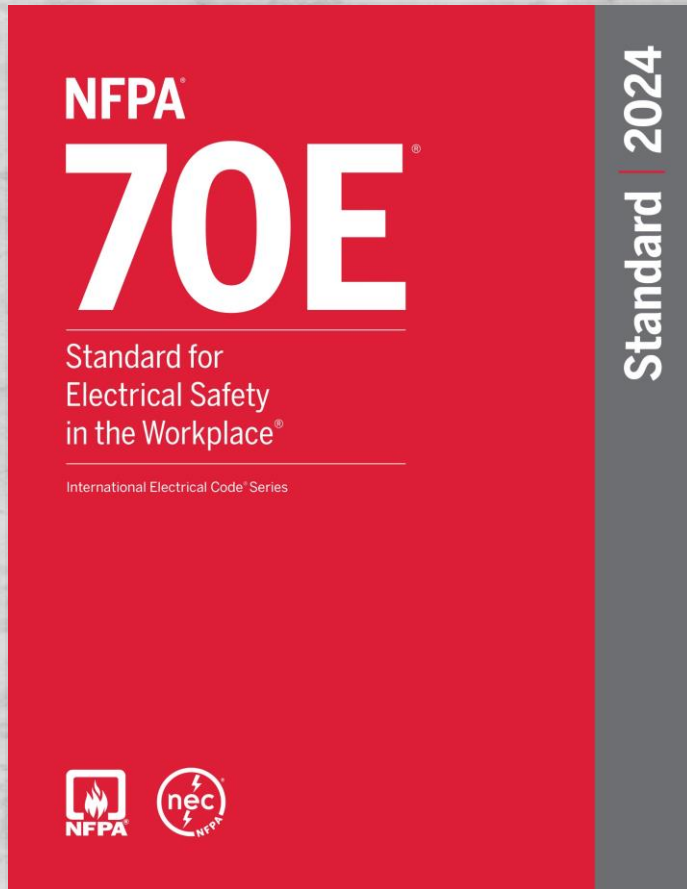


- Training is required for employees exposed to an electrical hazard and the risk is not reduced to a safe level.
- They must be:
 - Trained to understand the specific hazards associated with electrical energy
 - Trained in safety-related work practices and procedural requirements for their specific job or task
 - Trained to identify and understand the relationship between electrical hazards and possible injury



Qualified vs. Unqualified Employees

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Qualified Person.

One who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify the hazards and reduce the associated risk.

Unqualified Person.

A person who is not a qualified person.

- **Demonstrated skills and knowledge**
- **Received training to identify hazards and reduce risk**

NFPA 70E[®] + MCAA Training Opportunities

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NFPA 70E[®] EMPOWERING ELECTRICAL SAFETY FOR MECHANICAL SERVICE TOGETHER



NFPA and MCAA are joining forces to offer resources and tools customized and curated to specifically address and mitigate risks related to electrical safety posed to MCAA members, including physical, compliance and financial risks.

Crafted by NFPA's trusted subject matter experts, this content will provide actionable information and strategies to help you and your team keep pace with the ever-changing regulatory environment, identify potential hazards and shortfalls, and markedly improve safety for your employees, customers, and their workplaces and communities.

Depending on your needs and goals, we offer different levels of educational programs from introductory to more in-depth and on-going programming—and it's all at a discounted rate. Request more information: nfpa.org/mcaa-nfpa

MCAA

Mechanical Contractors Association of America

Request more information: nfpa.org/mcaa-nfpa



NFPA 70E® + MCAA 2hr. Video Training

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VIDEO TRAINING

ELECTRICAL SAFETY AWARENESS FOR MECHANICAL SERVICE

Gain essential knowledge for creating a safer workplace with expert insights into electrical safety from hazard identification to proper PPE selection.

- Approximately 2 hours of content
- NFPA Certificate of Completion*

**MCAA MEMBER
PRICE**
\$125
PER ATTENDEE

Created for MCAA Specifically

Interactive & Impactful Content

Cost Effective

NFPA Certificate of Completion & CEU's

Request more information: nfpa.org/mcaa-nfpa



NFPA 70E® + MCAA 6hr. Online Training

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ONLINE TRAINING

MASTERING NFPA 70E, STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE

Equip your team with the expertise to identify and mitigate shock and arc flash hazards effectively. Learn from industry experts at your own pace.

- 6 hours of content split over 6 learning modules
- 0.6 CEUs issued
- NFPA Certificate of Completion*

STANDARD ~~\$259~~ MCAA MEMBER PRICE **\$195**

Convenience

Interactive & Impactful Content

Cost Effective

NFPA Certificate of Completion & CEU's

Request more information: nfpa.org/mcaa-nfpa



NFPA 70E® + MCAA Instructor-Led Training



ON-SITE INSTRUCTOR LED TRAINING

BECOME AN EXPERT AT NFPA 70E, STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE

Recommended for anyone who uses or enforces NFPA 70E, including: safety managers, mechanical service contractors, project managers, risk managers, plant managers, and facility maintenance personnel.

- 2 Days of training
- 1.4 CEUs issued

MCAA MEMBER DISCOUNT **10%**

Expert Instruction

The Most Convenient Location...Your Facility!

Customization / Relevancy

More Than Just Code Knowledge

Top-Flight Training Materials

Fully Accredited Programs

* Virtual Instructor Led Training *

Request more information: nfpa.org/mcaa-nfpa





Other Resources

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NFPA Training is a go-to resource for skilled professionals and a trusted partner for organizations investing in safety.



ONLINE



ONSITE

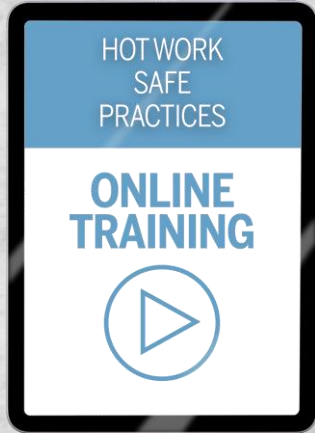


LIVE VIRTUAL

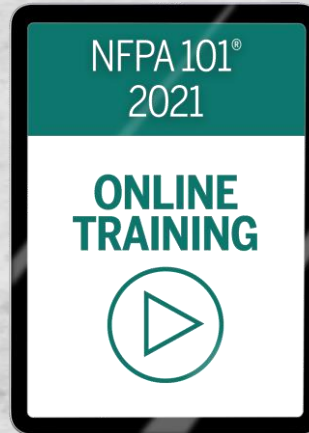


Other Resources

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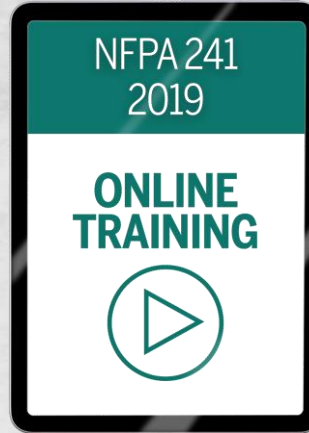
**HOT WORK SAFETY
CERTIFICATE ONLINE
TRAINING**



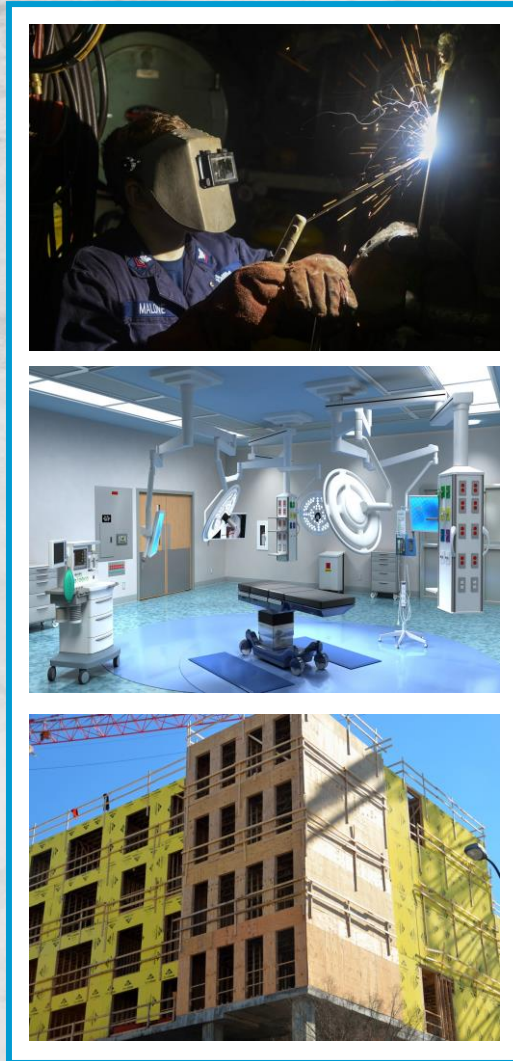
**NFPA 101, LIFE SAFETY
CODE ESSENTIALS
ONLINE TRAINING SERIES**



**NFPA 99, HEALTH CARE
FACILITIES CODE SERIES
ONLINE TRAINING**



**NFPA 241, SAFEGUARDING
CONSTRUCTION,
ALTERATION, AND
DEMOLITION OPERATIONS
ONLINE TRAINING SERIES**





Other Resources

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**Certified Electrical
Safety Worker (CESW)**



**Certified Electrical
Safety Technician (CEST)**



**Certified Electrical
Safety Compliance Professional
(CESCP)**

NFPA LiNK[®]

Digital access to a range of content – from NFPA[®] codes and standards to expert commentary and visual aids. Now it's easier to locate, organize, and share knowledge anytime and anywhere.





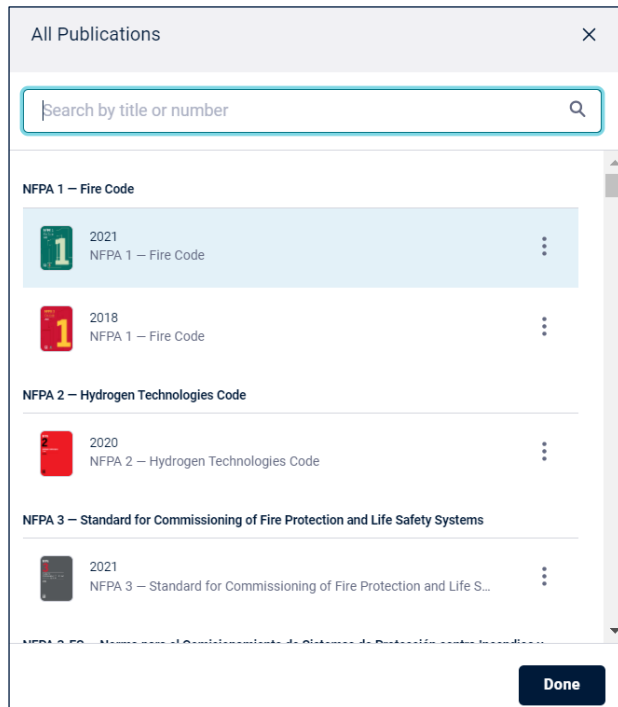
www.nepa.org/LINK

NFPA LiNK[®] Content

Publications

1500 publications available within LiNK

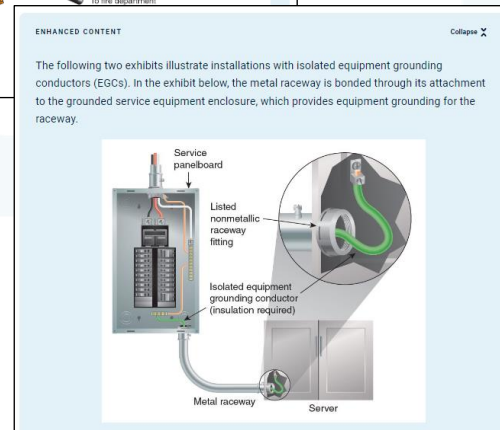
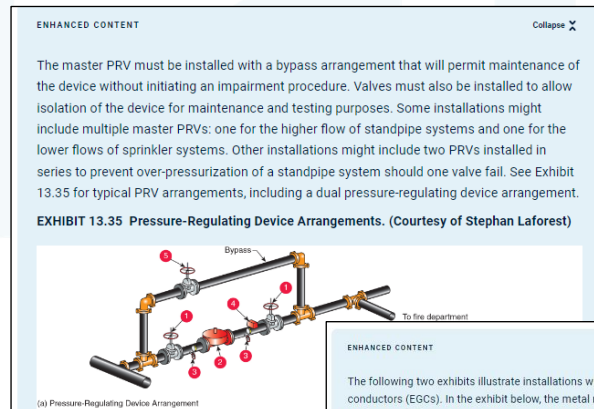
- Five editions of each NFPA code and standard
- First access to newly released editions
- Growing library of our publications



Enhanced In-Line

Expert commentary and visual aids in-line with the code

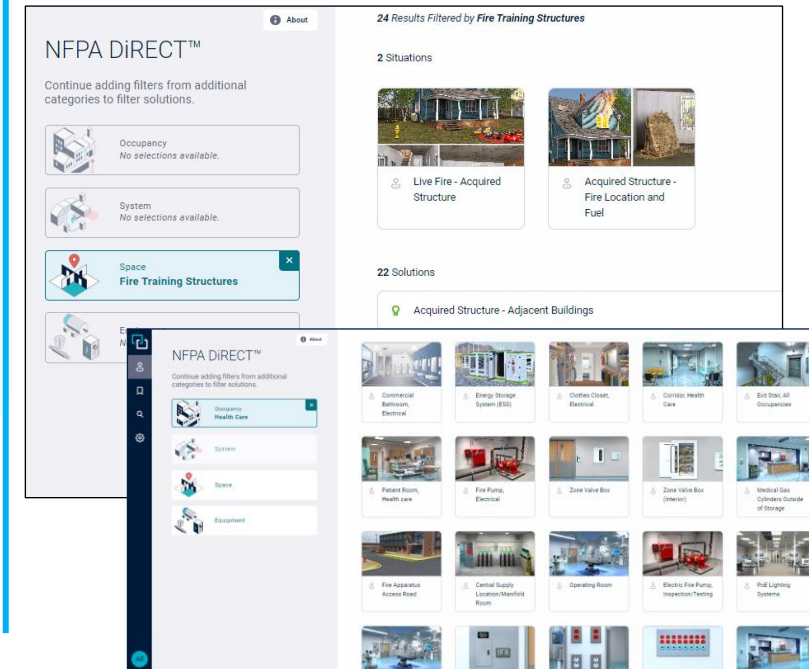
- Includes our most popular handbook content
- Enhanced content, created by NFPA subject matter experts, being added on an ongoing basis



Enhanced DiRECT[®]

Situational content filtered by occupancy, system, space, and equipment

- Navigate to content based on real-life situations
- Aggregated code information with accompanying visual aids
- New content being added on an ongoing basis

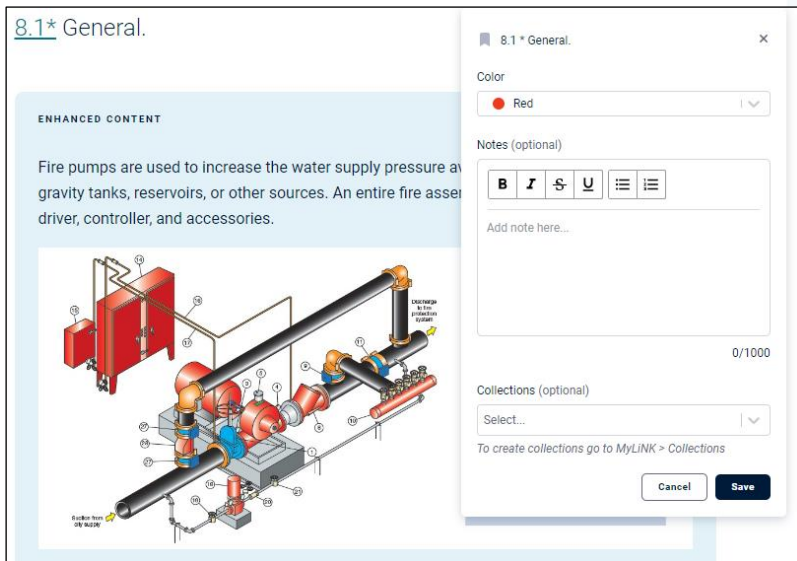


NFPA LiNK[®] Features

Bookmarks / Notes

Organize and add notes to frequently used content

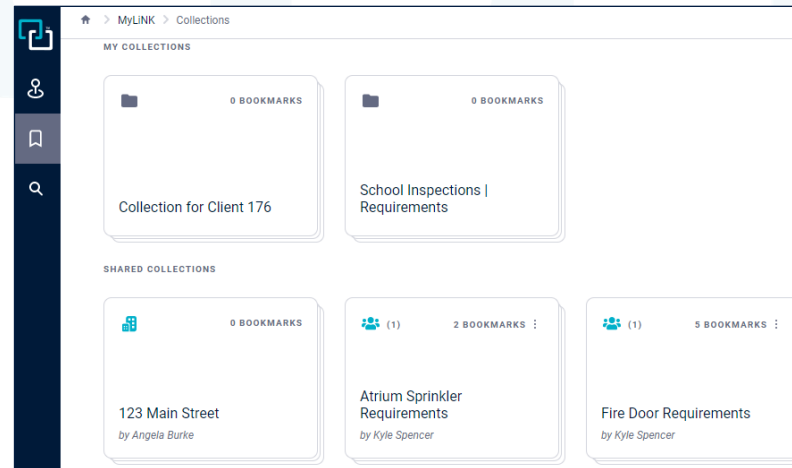
- Create personal notes, create bookmarks and assign colors
- Bookmarks persist across all editions so no need to start over when new editions are released



Collections

Organize and collaborate through use of collections

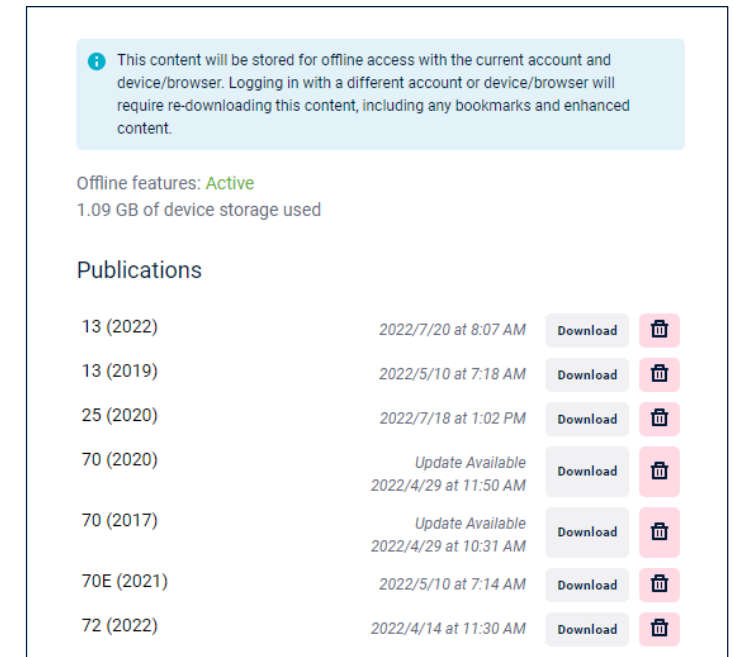
- Create custom collections and aggregate content to save time and streamline your workflows
- With team subscriptions, collaborate with your peers to share relevant project notes through team collections



Offline Access

Access important content when in a remote location

- Easily store publications with enhanced content, notes and bookmarks to your device for access when offline
- Search across your downloaded publications



NFPA LiNK® Features

Sharing

Share code and standard requirements with users without a subscription

- With the handy LiNK share feature you can send code content to customers, clients or colleagues

Share

12.2.3.2
NFPA 72 – National Fire Alarm and Signaling Code® (2022)
Optical fiber cables entering from outside the building or structure shall also comply with NFPA 70 Article 840.

Share to *

Enter email addresses

Subject *

NFPA 72 – National Fire Alarm and Signaling Code® (2022)

Message

Enter a Message (optional)

Cancel Send Email

Interactive Changes

New interactive change indicators throughout the codes and standards

- Quickly identify exactly what has changed from the prior edition in a side-by-side comparison
- Change Summaries offer expert insight into revisions.
- TIA Change Indicators inform you of any code amendments that have been made since the publication was released.

Exception No. 3: A listed and marked steel plate less than 1.6 mm (1/16 in.) thick that provides equal or better protection against nail or screw penetration shall be permitted.

(E) Cables, Raceways, or Boxes Installed in or Under Metal-Corrugated Roof Decking.
A cable, raceway, or box, installed in exposed or concealed locations under metal-corrugated sheet roof decking, shall be installed and supported so there is not less than 38 mm (1 1/2 in.) measured from the lowest surface of the roof decking to the top of the cable, raceway, or box. A cable, raceway, or box shall not be installed in concealed locations in metal-corrugated, sheet decking-type roof.

Informational Note: Roof decking material is often repaired or replaced after the initial raceway or cabling and roofing installation and might be penetrated by screws or other mechanical devices designed to provide "hold down" strength of the waterproof membrane or roof insulating material.

Exception No. 1: Rigid metal conduit and intermediate metal conduit, with listed steel or malleable iron fittings and boxes, shall not be required to comply with 300.4(E).

Exception No. 2: The 38 mm (1 1/2 in.) spacing is not required where metal-corrugated sheet roof decking is covered with a minimum thickness 50 mm (2 in.) concrete slab, measured from the top of the corrugated roofing.

Prior Text

Text from previous edition:

(E) Cables, Raceways, or Boxes Installed in or Under Roof Decking.
A cable, raceway, or box, installed in exposed or concealed locations under metal-corrugated sheet roof decking, shall be installed and supported so there is not less than 38 mm (1 1/2 in.) measured from the lowest surface of the roof decking to the top of the cable, raceway, or box.

CHANGE SUMMARY

Revised title to add "Metal-Corrugated" in front of "Roof Decking", added Exception No. 2 for metal decking covered by concrete, and revised Exception No. 1 to clarify the requirement to use malleable iron fittings and boxes and to make physical protection more generic to allow for other methods. [FR-9375, FR-9382, FR-9408, SR-8541]

Team Management

Manage your team and control permissions within the application

- Add and remove team users, as well as assign account admins
- New workgroups feature allows admins to control sharing permissions and account-wide custom collections

Account Settings

Your Information Team Management **Manage Workgroups** Subscription Details Offline

Manage Workgroups

Search Workgroups

New Workgroup

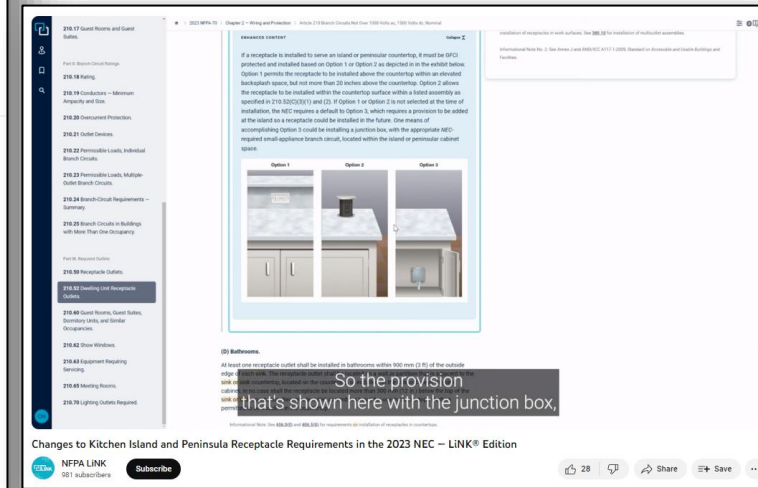
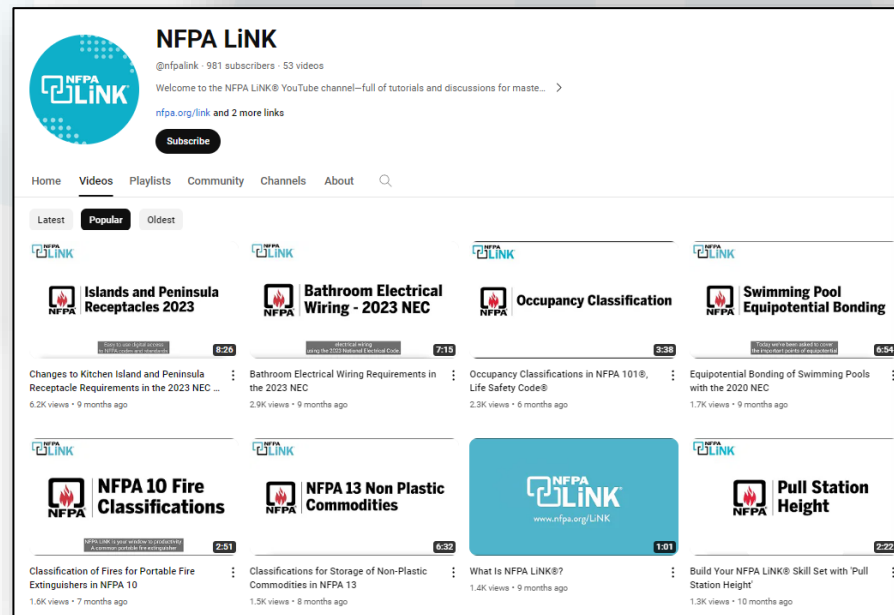
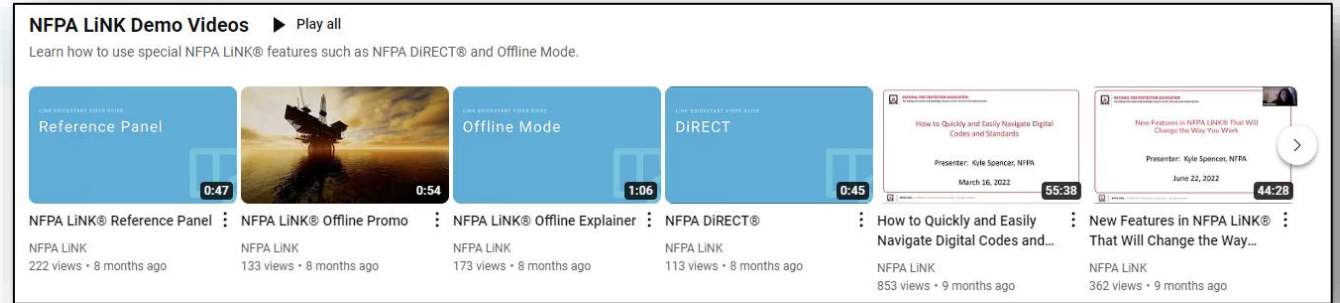
4 Workgroups	Members	Shared Collections	
10 State Street Project	4 Members	Fire Door Requirements Atrium Sprinkler Requirements	⋮
Engineering Department	2 Members	New Hire Training - Engineering	⋮
PNW Regional Team	3 Members		⋮
Facility Maintenance	2 Members	Fire Pump ITM	⋮

NFPA LiNK® Additional Resources

NFPA LiNK® YouTube Channel

The NFPA LiNK® YouTube Channel provides:

- Helpful videos on getting the most out of the features that LiNK provides
- Share expert videos with your employees on specific code requirements, developed by NFPA Technical Services staff members





NFPA LiNK offers subscription pricing to fit your team and your budget. Multiple pricing and access options mean you can get exactly what you need.

NFPA LiNK



Free Trial

- ✓ No credit card to sign up
- ✓ No obligation, hassle-free
- ✓ No auto-renewal
- ✓ Free for two weeks

NFPA LiNK



Individual

- ✓ Digital Access to NFPA Codes and Standards
- ✓ Expert Commentary & Visual Aids
- ✓ Situational Navigation
- ✓ Custom Collections
- ✓ Personal Notations
- ✓ Bookmarking
- ✓ Sharing

NFPA LiNK



Team

- ✓ All Individual Plan Features
- ✓ User Management
- ✓ Team Collaboration
- ✓ Team Notes & Sharing
- ✓ Team options available for up to 5 or 10 users

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Enterprise

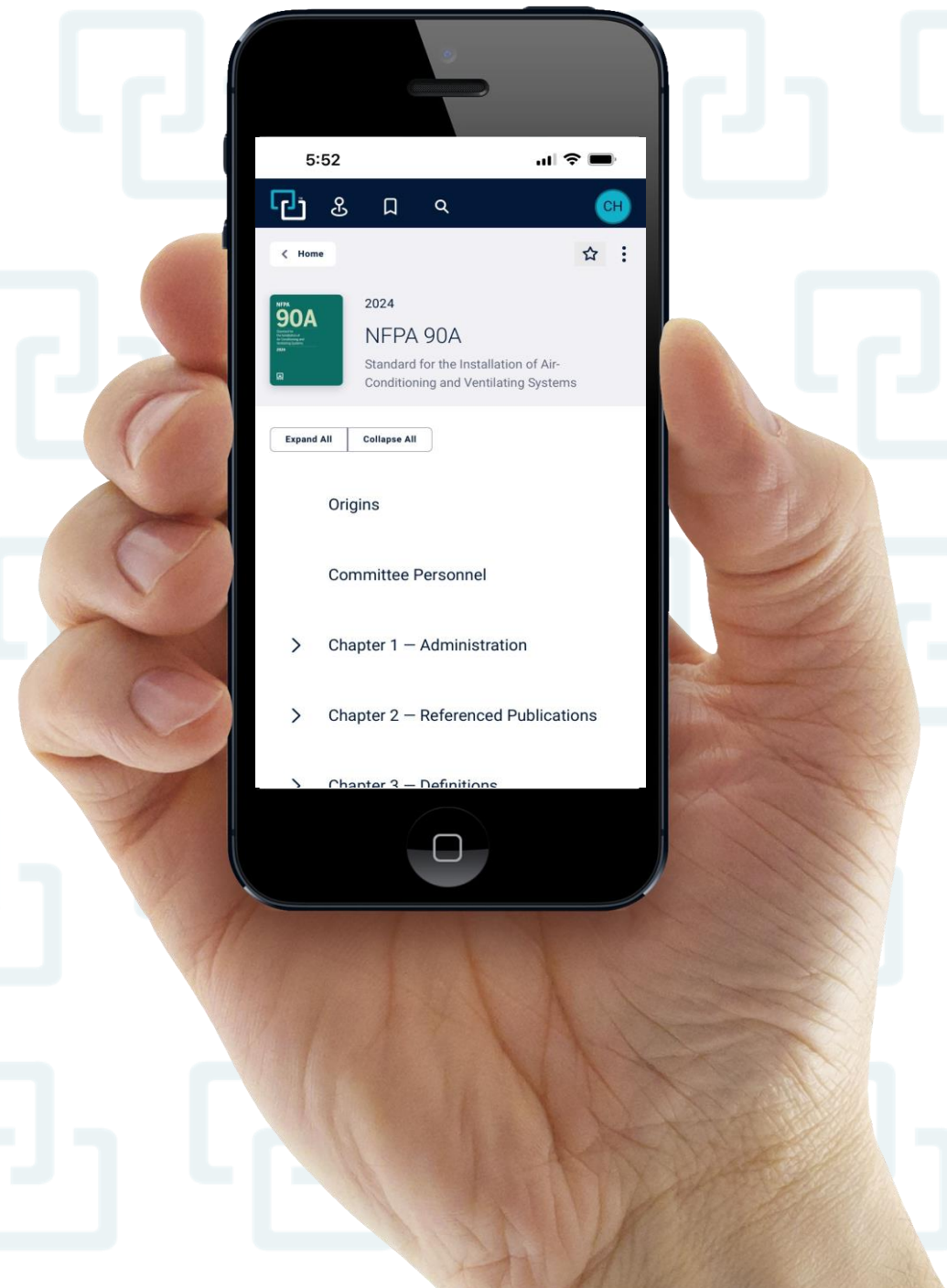
- ✓ All Individual Plan Features
- ✓ User Management
- ✓ Enterprise Collaboration
- ✓ Enterprise Team Notes & Sharing
- ✓ 11 or More Users



THE ANSWER TO ALL YOUR NFPA CODES AND STANDARDS QUESTIONS – AT YOUR FINGERTIPS.

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Check out our YouTube Channel:
youtube.com/@nfpalink





“Every professional trained on NFPA codes and standards is another skilled worker helping to make the world safer.”

Jim Pauley, NFPA President and
CEO



How Can



Help You?



www.nfpa.org

THANK YOU

IT'S A BIG WORLD. LET'S PROTECT IT TOGETHER.®

