AGENDA

NFPA Technical Committee on Electronic Computer Systems (ELT-AAA)
NFPA 75 First Draft Meeting (F2027)

April 7-8, 2026
8:00 a.m. – 5:00 p.m. (EST)

Charlotte, NC/Teleconference
To join the meeting, please contact Nicholas Duggan, nduggan@nfpa.org

1. **Call to order.** Mark Suski.
2. **Introductions.** See committee roster attached.
3. **Chair report.** Mark Suski.
4. **Staff liaison report.** Michael Cassidy.
5. **Previous meeting minutes.** April 25, 2023 (Teleconference). See attached.
6. **NFPA 75 First Draft.**
   a. **Task group report(s).**
      i. **Task Group on Chapter 9 Fire Protection and Detection Equipment**. Jack Poole (Chair).
      ii. **Task Group on Chapter 11 Utilities**. Scott Lang (Chair).
   b. **Public Inputs.** See attached.
7. **Other Business.**
   a. **Staff Identified Items.**
8. **Future meetings.**
9. **Adjournment.**

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MINUTES

NFPA Technical Committee on Electronic Computer Systems (ELT-AAA)
NFPA 75 Second Draft Meeting (Fall 2023)

April 25, 2023
10:00am – 4:00pm (Eastern)

Web/Teleconference

1. **Call to order.** Lee Kaiser, chair, called the meeting to order at 10:00am on April 25, 2023.
2. **Introductions.** Attendees introduced themselves and identified their affiliation. NFPA staff took attendance.
3. **Chair report.** Lee Kaiser welcomed attendees and provided an overview of the meeting.
4. **Staff liaison report.** Tom Harris provided an overview of the standards development process and the revision cycle schedule.
5. **Previous meeting minutes.** The minutes from May 2022 Atlanta were approved without revision.
6. **NFPA 75 Second Draft.**
   a. **Review of Public Comments and Committee Inputs.** The Technical Committee reviewed the Public Comments and Committee Inputs and developed Second Revisions as necessary. These will be available in the Second Draft Report at www.nfpa.org/75.
7. **Other Business.**
8. **Future meetings.** This was the final meeting of this committee for the revision cycle. Public Inputs for the next edition are expected to close in January 2025. A meeting notification will be posted at www.nfpa.org/75next when the next meeting is scheduled.
9. **Adjournment.** The meeting was adjourned at 3:10pm on April 25, 2023.

Attendees
Committee Members:

✓	**Kaiser, Lee**	Chair	Orr Protection Systems, Inc.
✓	**Lang, Scott**	Secretary	Automatic Fire Alarm Association, Inc.
	Brown, Alastair	Principal	HKA Global
✓	**Burke, Thomas**	Principal	UL LLC
✓	**DeMand, Sheila**	Principal	Aon

✓	**Denhardt, John**	Principal	American Fire Sprinkler Association
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✓	**Kincaid, Scott**	Principal	Fire Equipment Manufacturers' Association
✓	**Kluge, Richard**	Principal	Alliance for Telecommunications Industry
✓	**Koffel, William**	Principal	Koffel Associates, Inc.
✓	**Lapa, Benjamin**	Principal	National Security Agency
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✓	**Macaulay, Charles**	Principal	Microsoft Data Center Operations (CO+I)
	Mariska, Chad	Principal	National Association of Fire Equipment
✓	**Neiderheiser, Rita**	Principal	United Assn. of Journeymen & Apprentices
✓	**Paras, Michael**	Principal	Environmental Systems Design, Inc.
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✓	**Robin, Mark**	Principal	Fire Suppression Systems Association
	Rotondo, Jason	Principal	CODEpliance Inc.
✓	**Schieber, Alex**	Principal	Amazon Web Services
✓	**Smith, Philip**	Principal	The Boeing Company
✓	**Southerland, Joseph**	Principal	US Department Of Defense
✓	**Spataro, Joseph**	Principal	American International Group, Inc.
✓	**Tworkowski, David**	Principal	Fire Protection Testing
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Guests:

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Steve Dryden	Hanover
Will Susiene	Intel – IT Industry Council
David Pelton	NAFED
Max Reiber	NAFED/Protex Central
Veronica Westfall	AFSA
Josh McDonald	AFSA
Steve Keitharath	NFPA Staff
Tom Goss	NFPA Staff
Chad Duffy	NFPA Staff

Total number in attendance: 45

Public Input No. 10-NFPA 75-2025 [Global Input]

Type your content here ...Hello I am a fire protection Engineer in Albuqu. New Mexico and spend a great deal of time with supper computers and liquid cooled computer systems. In view of NFPA 75 it is my recommendation to the committee to add additional information for a improved understanding as the computer world is changing. A deeper discussion related to overhead open cable trays.discussion related to safety concerns related to items found in NFPA 70. Additional detection requirement for these cable trays that are often full and obstruction of the fire reaching the over head detection units.

Greater discussion of VESDA units and the design for VEWFDS. Discussion regarding high bay areas (our supper computer are in high bay areas and standard Vesda units are not listed for high bay ceilings), A stronger position for VESDA units instead of standard smoke detection (for super computers). A discussion regarding computer cabinets that are equipped with heat Exchanger grills and fans that encompasses the entire door. (high airflow's). A discussion regarding duct detectors (optical duct detectors or air sampling detection) instead of standard duct detectors which may be too slow to respond.

A discussion regarding rack overflow (mixture of hot and cold air flow) How the top racks may overheat due to the hot air mixing with the cold air and overheating the top computer racks.

Thank you for your time and look forward to hearing the NFPA 75 group.

Kind Regards

David Greenwald

Statement of Problem and Substantiation for Public Input

The IT data world is changing fast with increasing heat loads and the down time could be several million dollars a day. Protecting computer systems 15 years ago may not be enough protection for today and tomorrow computer systems.

our computer protection system were based the min. fire code and no more. With issues related to clean agent fire suppression systems being taken out by EPA and how standard smoke detectors are too slow to address high dollar computer systems and upstream and down steam customers.

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Public Input No. 42-NFPA 75-2025 [Global Input]

Annex A (new) – Supplemental enclosure-level mitigation:

For small IT equipment cabinets, control panels, UPS enclosures, and other electrical enclosures within IT spaces, **passive, non-pressurized, heat-activated clean-agent devices** may be used as a **supplemental measure** to limit incipient fires at the point of origin. Such devices shall be **listed for their intended use**, installed in accordance with manufacturer **enclosure-volume and placement guidance**, and shall not reduce required electrical clearances or equipment ratings. This measure is intended to **complement, not replace**, the detection and suppression systems required elsewhere in this standard.

Statement of Problem and Substantiation for Public Input

Problem:
NFPA 75 addresses IT equipment room fire protection primarily at the room level. However, many electrical fires in IT and telecom facilities originate inside small enclosures such as control panels, UPS units, and server cabinets. Room-level clean agent systems (per NFPA 2001) may not suppress a fire at its point of origin within these confined spaces. This leaves a gap in protection that can lead to equipment damage, extended downtime, and costly outages.

Substantiation:
Passive, non-pressurized, heat-activated clean-agent devices provide a practical supplemental measure to address this gap. These devices:

- Activate directly at the heat source inside enclosures.
- Use FK-5-1-12, a SNAP-approved clean agent recognized in NFPA 2001.
- Are residue-free, maintenance-free, and electrically non-conductive, making them safe for sensitive IT equipment.
- Require no cylinders, piping, or external power, reducing lifecycle cost and complexity.
- Can be installed according to enclosure-volume/placement guidance, ensuring predictable performance.

By clarifying in Annex A that such devices may be considered a supplemental mitigation measure, NFPA 75 can guide AHJs and facility operators toward safer, cost-effective options that prevent fires at the earliest stage without altering existing system requirements. This addition strengthens IT equipment resilience and aligns with NFPA's mission to protect people, property, and business continuity.

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Public Input No. 43-NFPA 75-2025 [Global Input]

Section/Annex Reference:
Annex A (Informational), add new A.x.x

Proposed Annex Text:

> *A.x.x Autonomous Safety Architectures for IT Equipment Environments.*
> In addition to prescriptive requirements for fire protection of information technology equipment, facilities may employ autonomous multidisciplinary safety architectures such as AIMSAFEGURD™. These systems integrate fiber-optic sensors for temperature, pressure, oxygen concentration, vibration, and gas detection, combined with AI-driven predictive analysis.
>
> AIMSAFEGURD™ can detect precursor anomalies such as abnormal thermal rise in power distribution units, micro-leaks in cooling systems, oxygen displacement, or localized arc-flash risk within server rooms and data centers. Upon detection, the system can initiate **triple-point isolation** at MV/LV/DC levels, engage supplemental suppression sequences, or trigger controlled shutdowns, all within sub-cycle response time.
>
> While not required, such systems may be considered as supplemental measures to enhance fire safety, operational continuity, and protection of critical IT infrastructure.

Statement of Problem and Substantiation:
NFPA 75 establishes requirements for IT equipment fire protection, focusing on detection, suppression, and construction safeguards. However, modern high-density IT facilities (data centers, financial transaction hubs, critical servers) present evolving hazards such as:

- **High Arc-Flash Risk:** dense electrical infrastructure with elevated fault energy.
- **Thermal Runaway:** from cooling system failures or overloaded circuits.
- **Oxygen Depletion & Gas Release:** precursors to fire/explosion in enclosed IT environments.
- **Critical Continuity Demands:** downtime in IT systems can create cascading failures.

AIMSAFEGURD™ advantages:

- **Sub-Cycle Mitigation:** interrupts faults before escalation.
- **Cross-Domain Monitoring:** civil, mechanical, electrical, and biological risk integration.
- **Fiber-Optic Signaling:** ensures safe monitoring with zero ignition risk.
- **Autonomous UPS-Backed Resilience:** continues operating during power loss.
- **Cross-Standard Synergy:** complements NFPA 70 (NEC), NFPA 70B (maintenance), and NFPA 76 (telecom facilities).

By referencing autonomous architectures in Annex A, NFPA 75 acknowledges next-generation technologies that go beyond reactive suppression, providing proactive, real-time protection for mission-critical IT environments.

Statement of Problem and Substantiation for Public Input

NFPA 75 establishes requirements for IT equipment fire protection, focusing on detection, suppression, and construction safeguards. However, modern high-density IT facilities (data centers, financial transaction hubs, critical servers) present evolving hazards such as:

High Arc-Flash Risk: dense electrical infrastructure with elevated fault energy.

Thermal Runaway: from cooling system failures or overloaded circuits.

Oxygen Depletion & Gas Release: precursors to fire/explosion in enclosed IT environments.

Critical Continuity Demands: downtime in IT systems can create cascading failures.

AIMSAFEGURD™ advantages:

Sub-Cycle Mitigation: interrupts faults before escalation.

Cross-Domain Monitoring: civil, mechanical, electrical, and biological risk integration.

Fiber-Optic Signaling: ensures safe monitoring with zero ignition risk.

Autonomous UPS-Backed Resilience: continues operating during power loss.

Cross-Standard Synergy: complements NFPA 70 (NEC), NFPA 70B (maintenance), and NFPA 76 (telecom facilities).

By referencing autonomous architectures in Annex A, NFPA 75 acknowledges next-generation technologies that go beyond reactive suppression, providing proactive, real-time protection for mission-critical IT environments.

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Committee: ELT-AAA

Public Input No. 56-NFPA 75-2026 [Global Input]

Chapter X Cybersecurity

X.1 Applicability.

X.1 Where required by governing laws, codes, or standards, or other parts of this Code, cybersecurity shall be provided in accordance with Chapter X for equipment software, system support tools, installation methods, physical security of and access to equipment, data pathways, testing, and maintenance.

X.1.1 This chapter shall apply to new installations.

X.1.2 For existing installations, a cybersecurity risk assessment shall determine the implementation strategy.

A.X.1.2 Recommend industry accepted risk assessment process such as NIST Special Publication (SP) 800-30. Development and production environments used to develop and manufacture network connectable equipment shall employ cybersecurity safeguards and controls that are consistent with one or more of the following:

(1) NIST's "Cybersecurity Framework for Improving Critical Infrastructure Cybersecurity 2.0"

(2) ISO/IEC 27001, Information security, cybersecurity and privacy protection – Information security management systems – Requirements

(3) ANSI/ISA/IEC 62443-4-1, "Security for industrial automation and control systems - Part 4-1: Secure product development lifecycle requirements"

(4) IASME Consortium Cyber Essentials

(5) Other equivalent standards acceptable to a nationally recognized testing laboratory

(6) *Other applicable laws and regulations

X.1.3 Where required by governing laws, codes, or standards, cybersecurity shall be provided in accordance with Chapter X.

A.X.1.3

The security practices for the design, development, production, and service of network connectable equipment includes the overall cybersecurity posture of the manufacturing company itself. For example, it does not matter how well a system is designed or deployed from a cybersecurity perspective if the manufacturer does not adequately secure its own development, manufacturing, and patch/update distribution systems. Threat actors can compromise products by installing covert back doors during initial development, or during the development and distribution of software updates.

X.1.4

No minimum cybersecurity level shall be required for systems meeting both of the following conditions:

(1) No network connectable equipment

(2) No uploadable software configuration

X.1.5 Physical or logical network segregation must be provided within the facility to provide varying levels of cybersecurity controls for different system types. Examples: operational technology systems for electrical/HVAC controls and customer systems.

X.2 Network Connectable Equipment Software Development and Production Environments

Network connectable equipment within the facility shall employ recognized cybersecurity safeguards.

X.2.1

All network connectable equipment shall be identified in a site-specific and application-specific cybersecurity risk assessment.

X.2.1.1

All identified equipment shall implement security controls in accordance with the cyber security risk assessment.

X.2.1.2

Where mandatory controls are impractical to implement, compensatory controls shall be permitted with the approval of the authority having jurisdiction.

X.2.1.3

The cybersecurity risk assessment shall comply with X.2.1.3.1 and X.2.1.3.2

X.2.1.3.1

When a risk analysis is required, the findings and considerations of the risk analysis shall be documented.

X.2.1.3.2

The risk analysis documentation shall list the various scenarios evaluated and the anticipated outcomes.

X.3 Interconnecting Conductors, Cables, or Other Physical Pathways.

Interconnecting conductors, cables, or other physical pathways shall comply with one of the following:

(1) Be protected by a metal raceway or armored cable if in locations accessible to the public.

(2) Be physically protected in accordance with the finding of the cybersecurity risk assessment (see X.3.2)

X.4 Unused Physical Data Ports

All unused physical data ports shall be protected in at least one of the following ways:

(1) Physically protected from unauthorized access

(2) Administratively disabled

(3) Configured to require a token-based authentication, certificate-based authentication password, or other method consistent with the security requirement of the system

X.6 Cybersecurity Maintenance Plan

X.6.1

Unless otherwise determined through a risk assessment, the authority having jurisdiction shall comply with the following on at least a quarterly basis until the equipment or system is no longer in service.

(1) Evaluate all relevant cybersecurity threats

(2) Determine if a cybersecurity software update is available

X.6.2

The system installer shall provide the name and contact information of the authority having jurisdiction or their representative to the equipment manufacturer(s) at the time of system acceptance testing.

X.6.3

Software for network connectable devices shall be maintained by the installing software security updates as required by the equipment manufacturer(s) to maintain the cybersecurity level achieved in compliance with Section X.2

X.7 Electronic Access Credentials.

X.7.1

Maintenance plans for network connectable equipment shall identify all accounts, personnel, and organizations with electronic access credentials that could be used by a cybersecurity threat actor.

X.7.2

Personnel or organizations with electronic access credentials shall be reviewed annually to maintain least privilege access or to eliminate access where it is no longer required. In the event of users with admin access departing, the credentials shall be reviewed immediately.

X.7.3

The authority having jurisdiction shall maintain access logs for network connectable equipment that supports remote access.

X.7.4

The authority having jurisdiction shall review access longs at least annually and compare them to the access credentials used in the maintenance records to ensure previous access has been approved.

X.8 Evidence of Compliance

X.8.1

The validity of cybersecurity updates shall be verified at least quarterly by the authority having jurisdiction.

X.8.1.1

Cybersecurity compliance of the facility shall include an assessment or certification by a qualified cybersecurity professional.

X.8.1.2

The equipment manufacturers' contact information for the cybersecurity system owner shall be verified at least annually by the authority having jurisdiction.

X.8.1.3 Documentation

The standard and security levels utilized in complying with Chapter X shall be identified in the cybersecurity system documentation.

Type your content here ...

Statement of Problem and Substantiation for Public Input

The purposed change recommends a new chapter for cybersecurity. The text is (mostly) borrowed from development of the new chapter 17 on cybersecurity for the next version of NFPA 99. Although the text as written does not include a great deal of stringent requirements it signals a desired partnership for these critical facilities and coordination with authorities having jurisdiction to reflect impacts to public safety if these facilities are compromised via a cyber attack. If the technical

committee is interested in this direction, then there is interest within the NFPA Cybersecurity Advisory Committee to work on task group(s) revising the PI. Threats of cyber attack are well known. Availability of facilities under the preview of NFPA 75 may have an immediate affect on life and safety of the public. For example, equipment outside the medical campus enabling cloud based electronic health records requiring 24/7 access to provide care.

Submitter Information Verification

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Submittal Date: Tue Jan 06 14:15:51 EST 2026
Committee: ELT-AAA

Public Input No. 87-NFPA 75-2026 [Global Input]

We suggest the technical committee examine the title of the NFPA 75 standard, and determine if they wish to petition the standards council to change it to better reflect what the standard actually covers. The current title " Standard for the Fire Protection of Information Technology Equipment" may be misleading unless the goal is to just protect the ITE itself. A title such as "Standard for the Protection of Data Centers and Information Technology Equipment Areas" seems more on target for the protection required by these facilities, especially in the rapidly evolving data center landscape. In addition the scope of the ELT-AAA should also be examined, because the existing scope "This Committee shall have primary responsibility for documents on the protection of electronic computer equipment, components, and associated records" may not reflect the current industry and regulatory authority needs.

Statement of Problem and Substantiation for Public Input

Consideration needed to make sure the standard title and committee scope reflect the current intent.

Submitter Information Verification

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Submittal Date: Wed Jan 07 15:46:05 EST 2026
Committee: ELT-AAA

Public Input No. 88-NFPA 75-2026 [Global Input]

We suggest the Technical Committee form a work group of interested parties to identify how protection can be provided for modern data centers, including those utilizing modular data center constructions. This analysis is needed to address the rapidly changing landscape in ITE facilities (data centers), including significantly higher power and cooling demands. There are also new technologies such as immersion cooling systems utilizing heated combustible liquids, that need to be addressed to provide a reasonable level of safety for the facility, equipment, and occupants. In addition the trends toward 800 VDC power distribution systems and equipment (and possibly even higher voltage levels) deserves immediate attention if there are safety requirements with these systems that are not addressed by NFPA 70.

The task group should also include references to new safety standards that are being developed to address these new systems and hazards.

Statement of Problem and Substantiation for Public Input

Data Centers are front and center in many communities with limited specific requirements or practices being established. Electrical density within Data Centers has increased exponentially. NFPA 1 has yet to address the subject, other code bodies are discussing the issue and industry is moving faster than the codes. NFPA 75 should establish best practices and referenced documents for related subjects such as ESS, fire suppression, detection and cooling. Not addressing these developments and hazards until the subsequent code cycle will leave a significant gap in the overall data center safety net.

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Submittal Date: Wed Jan 07 15:54:41 EST 2026
Committee: ELT-AAA

Public Input No. 57-NFPA 75-2026 [Section No. 1.3 [Excluding any Sub-Sections]]

The application of this standard is based on the ~~risk considerations outlined in Chapter 4~~ . size of the facility and its computing related power consumption. This standard is applicable to ITE rooms and areas which meet one of these three requirements:

(1) Combined area larger than 1,000 square feet

(2) Total ITE power consumption of 500 kW or more

(3) Single IT rack power consumption of 30 kW or more

Statement of Problem and Substantiation for Public Input

Applying the standard optionally based on a risk assessment (often poorly executed) has become outdated with the public's increasing reliance on computing for their daily lives. Data centers being built today are made to support high performance computing, GPUs, and AI applications. These computing applications all require large capital costs for the equipment and infrastructure. Applying the standard to all new data centers will help to protect these facilities, keep them operating as much as possible for the public's benefit, and limit waste due to fires and other problems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 58-NFPA 75-2026 [Section No. 1.3.1]	

Submitter Information Verification

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Submittal Date: Tue Jan 06 18:10:05 EST 2026
Committee: ELT-AAA

Public Input No. 58-NFPA 75-2026 [Section No. 1.3.1]

~~1.3.1~~ –

~~A documented risk assessment shall be the basis for implementation of this standard.~~

Statement of Problem and Substantiation for Public Input

The change in PI 57 eliminates the need for this statement and the risk assessment approach will still exist in the standard in Chapter 4.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 57-NFPA 75-2026 [Section No. 1.3 [Excluding any Sub-Sections]]	

Submitter Information Verification

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Submittal Date: Tue Jan 06 18:40:19 EST 2026
Committee: ELT-AAA

Public Input No. 75-NFPA 75-2026 [Section No. 2.2]

2.2 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1, *Fire Code,* 2024 edition.

NFPA 10, *Standard for Portable Fire Extinguishers,* 2022 edition.

~~NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems,* 2022 edition.~~

NFPA 12A, *Standard on Halon 1301 Fire Extinguishing Systems,* 2022 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems,* 2022 edition.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,* 2023 edition.

NFPA 70® , *National Electrical Code*®, 2023 edition.

NFPA 72® , *National Fire Alarm and Signaling Code*®, 2022 edition.

NFPA 76, *Standard for the Fire Protection of Telecommunications Facilities,* 2024 edition.

NFPA 80, *Standard for Fire Doors and Other Opening Protectives,* 2022 edition.

NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems,* 2024 edition.

NFPA *101*® , *Life Safety Code*®, 2024 edition.

NFPA 105, *Standard for Smoke Door Assemblies and Other Opening Protectives,* 2022 edition.

NFPA 220, *Standard on Types of Building Construction,* 2024 edition.

NFPA 232, *Standard for the Protection of Records,* 2022 edition.

NFPA 259, *Standard Test Method for Potential Heat of Building Materials,* 2023 edition.

NFPA 750, *Standard on Water Mist Fire Protection Systems,* 2023 edition.

NFPA 770, *Standard on Hybrid (Water and Inert Gas) Fire-Extinguishing Systems,* 2021 edition.

NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems,* 2023 edition.

NFPA 1225, *Standard for Emergency Services Communications,* 2022 edition.

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems,* 2022 edition.

Statement of Problem and Substantiation for Public Input

Trying to remove NFPA 12 from the standard.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 65-NFPA 75-2026 [Section No. 9.1.1.5]	

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Committee: ELT-AAA

Public Input No. 77-NFPA 75-2026 [Section No. 2.3.1]

2.3.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2023~~ 2025 .

ASTM E136, *Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C*, ~~2022~~ 2024c .

ASTM E814, *Standard Test Method for Fire Tests of Penetration Firestop Systems*, ~~2013a, reapproved 2017~~ 2024 .

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, ~~2023~~ 2025 .

ASTM E1537, *Standard Test Method for Fire Testing of Upholstered Furniture*, 2022.

ASTM E2652, *Standard Test Method for Assessing Combustibility of Materials Using a Tube Furnace with a Cone-Shaped Airflow Stabilizer, at 750°C*, 2022.

ASTM E2965, *Standard Test Method for Determination of Low Levels of Heat Release Rate for Materials and Products Using an Oxygen Consumption Calorimeter*, ~~2022a~~ 2025 .

Statement of Problem and Substantiation for Public Input

date updates

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Jan 07 14:08:32 EST 2026
Committee: ELT-AAA

Public Input No. 53-NFPA 75-2026 [Section No. 2.3.2]

2.3.2 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 72, *Tests for Fire Resistance of Record Protection Equipment*, 2020.

UL 242, *Nonmetallic Containers for Waste Paper,* 2018.

UL 723, *Test for Surface Burning Characteristics of Building Materials*, ~~2018~~ 2025 .

UL 900, *Air Filter Units,* 2022.

UL 1315, *Containers for Waste Paper,* 2022.

UL 1449, *Surge Protective Devices*, ~~2022~~ 2025 .

UL 1479, *Fire Tests of Penetration Firestops,* ~~2021~~ 2025 .

UL 60950, *Information Technology Equipment*, 2000, including revisions through October 30, 2007.

UL 60950-1, *Information Technology Equipment — Safety — Part 1: General Requirements*, 2019.

UL 62368-1, *Audio/Video, Information and Communication Technology Equipment — Part 1: Safety Requirements*, ~~2021~~ 2025 .

Statement of Problem and Substantiation for Public Input

Update to most recent edition and revision.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 54-NFPA 75-2026 [Section No. G.1.2.9]	

Submitter Information Verification

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Submittal Date: Tue Jan 06 13:58:22 EST 2026
Committee: ELT-AAA

Public Input No. 26-NFPA 75-2025 [Section No. 3.3.1]

3.3.1 ~~Abandoned~~ Abandoned Cables ~~.~~

Installed cable that is not terminated at equipment other than a termination fitting or a connector and is not identified for future use with a tag. [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

This definition is an extract from the NEC. The issue year has been updated.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sun Jul 20 06:14:43 EDT 2025
Committee: ELT-AAA

Public Input No. 24-NFPA 75-2025 [Section No. 3.3.6]

3.3.6 Communications Circuit.

A metallic, fiber, or wireless circuit that provides voice/data (and associated power) for communications-related services between communications equipment. [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

This definition is an extract from the NEC. The issue year has been updated.
The NEC added and informational note to the definition. See PI 28 which uses the informational note as the basis for an annex note.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 28-NFPA 75-2025 [New Section after A.3.3.4.4]	New annex note to 3.3.6.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sat Jul 19 15:18:55 EDT 2025
Committee: ELT-AAA

Public Input No. 25-NFPA 75-2025 [Section No. 3.3.7]

3.3.7 Communications Equipment.

The electronic equipment that performs the telecommunications operations for the transmission of audio, video, and data, and includes power equipment (e.g., dc converters, inverters, and batteries), technical support equipment (e.g., computers), and conductors dedicated solely to the operation of the equipment. [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

This definition is an extract from the NEC. The issue year has been updated.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sat Jul 19 15:29:36 EDT 2025
Committee: ELT-AAA

Public Input No. 1-NFPA 75-2024 [Section No. 3.3.8.1]

~~**3.3.8.1** – Heat Detector.~~

~~A fire detector that detects either abnormally high temperatures or rate of temperature rise, or both.~~

Statement of Problem and Substantiation for Public Input

The term "heat detector" is not used in the standard.

Submitter Information Verification

Submitter Full Name: Scott Lang
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Submittal Date: Wed Jun 05 12:51:45 EDT 2024
Committee: ELT-AAA

Public Input No. 2-NFPA 75-2024 [Section No. 3.3.8.2]

3.3.8.2 Smoke Detector.

A device that senses visible or invisible particles of combustion. [72, 2025]

Statement of Problem and Substantiation for Public Input

Definition for "smoke detector" should be an extract from NFPA 72. The current definition is the same as NFPA 72, but not shown as an extract.

Submitter Information Verification

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Submittal Date: Wed Jun 05 12:57:47 EDT 2024
Committee: ELT-AAA

Public Input No. 89-NFPA 75-2026 [Section No. 3.3.9]

3.3.9 Electronically Interconnected.

Units in the ITE area or facility that must be connected by a signal channel to complete a system or perform an operation.

Statement of Problem and Substantiation for Public Input

Clarifies that the units for interconnection are in the ITE area or facility rather than a business area in part of the same occupancy but not a part of the ITE portion of the facility.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 90-NFPA 75-2026 [Section No. 3.3.14]	
Public Input No. 91-NFPA 75-2026 [New Section after 3.3.13]	
Public Input No. 92-NFPA 75-2026 [Section No. 3.3.29]	

Submitter Information Verification

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Submittal Date: Wed Jan 07 16:07:06 EST 2026
Committee: ELT-AAA

Public Input No. 4-NFPA 75-2024 [Section No. 3.3.10]

~~**3.3.10** ***** – Energy Storage System (ESS).~~

~~One or more devices installed as a system capable of storing energy and providing electrical energy into the premises wiring system or an electric power production and distribution network.~~
~~[**70,** 2023]~~

Statement of Problem and Substantiation for Public Input

The term "energy storage system" is not used in the standard.

Submitter Information Verification

Submitter Full Name: Scott Lang
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Zip:
Submittal Date: Wed Jun 05 14:31:49 EDT 2024
Committee: ELT-AAA

Public Input No. 91-NFPA 75-2026 [New Section after 3.3.13]

3.3.13 Gas Detection System.

A device or arrangement of sensors that detects the presence of flammable gases.

Statement of Problem and Substantiation for Public Input

Areas containing the use of lithium-ion batteries often require gas detection systems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 89-NFPA 75-2026 [Section No. 3.3.9]	
Public Input No. 90-NFPA 75-2026 [Section No. 3.3.14]	
Public Input No. 92-NFPA 75-2026 [Section No. 3.3.29]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Wed Jan 07 16:21:26 EST 2026
Committee: ELT-AAA

Public Input No. 27-NFPA 75-2025 [Section No. 3.3.13]

3.3.13* Information Technology Equipment (ITE).

Equipment and systems rated 1000 volts or less, normally found in offices or other business establishments and similar environments classified as ordinary locations, that are used for creation and manipulation of data, voice, video, and similar signals ~~that are not communications equipment and do not process communications circuits~~ . [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

The 2025 edition of the NEC has revised the definition of Information Technology Equipment.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sun Jul 20 06:25:18 EDT 2025
Committee: ELT-AAA

Public Input No. 90-NFPA 75-2026 [Section No. 3.3.14]

3.3.14 Interconnecting Cables.

Signal and power cables for operation and control of a system in an ITE area or facility .

Statement of Problem and Substantiation for Public Input

Clarifies that the units for interconnection are in the ITE area or facility rather than a business area in part of the same occupancy but not a part of the ITE portion of the facility.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 89-NFPA 75-2026 [Section No. 3.3.9]	
Public Input No. 91-NFPA 75-2026 [New Section after 3.3.13]	
Public Input No. 92-NFPA 75-2026 [Section No. 3.3.29]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Wed Jan 07 16:09:02 EST 2026
Committee: ELT-AAA

Public Input No. 79-NFPA 75-2026 [Section No. 3.3.20.1]

3.3.20.1 Combustible Material.

A material that, in the form in which it is used and under the conditions anticipated, will ignite and burn; a material that does not meet the ~~definition~~ requireemnts of a noncombustible material or a limited-combustible material .

Statement of Problem and Substantiation for Public Input

It is better to talk about requirements rather than definitions, since requirements for both noncombustible and limited combustible materials are in chapter 6.

Submitter Information Verification

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Submittal Date: Wed Jan 07 14:12:16 EST 2026
Committee: ELT-AAA

Public Input No. 29-NFPA 75-2025 [Section No. 3.3.21]

3.3.21* Modular Data Center (MDC).

Prefabricated units, rated 1000 volts or less, consisting of an outer enclosure housing multiple racks or cabinets of information technology equipment (ITE) (e.g., servers) and various support equipment, such as electrical service and distribution equipment, HVAC systems, and the like. [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

This definition is an extract from the NEC. The issue year has been updated.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sun Jul 20 06:59:45 EDT 2025
Committee: ELT-AAA

Public Input No. 109-NFPA 75-2026 [Section No. 3.3.22]

3.3.22 Off-~~Gas~~ Gassing .

The event in which ~~the [battery] cell~~ the cell case vents due to a rise in internal pressure of the cell. [**855,**- ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

Definition revised per latest edition of NFPA 855.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 110-NFPA 75-2026 [Section No. 11.5.4.1]	

Submitter Information Verification

Submitter Full Name: Richard Kluge
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Submittal Date: Wed Jan 07 18:25:37 EST 2026
Committee: ELT-AAA

Public Input No. 30-NFPA 75-2025 [Section No. 3.3.23]

3.3.23 Optical Fiber Cable.

A factory assembly or field assembly of one or more optical fibers having an overall covering. [**70,** ~~2023~~ 2026]

Statement of Problem and Substantiation for Public Input

This definition is an extract from the NEC. The issue year has been updated.

Submitter Information Verification

Submitter Full Name: Stanley Kaufman
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Submittal Date: Sun Jul 20 07:13:23 EDT 2025
Committee: ELT-AAA

Public Input No. 12-NFPA 75-2025 [Section No. 3.3.26]

3.3.26* Raised Floor.

A platform with removable panels where equipment is installed, with the intervening space between it and the main building floor used to house the interconnecting cables and~~- at times is~~ /or is used as a means for supplying conditioned air to the ITE and the room.

Statement of Problem and Substantiation for Public Input

Shorter and clarifies intent. Though rare, some below-floor space is used exclusively for a plenum (no cabling) and current definition does not include that configuration.

Submitter Information Verification

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Submittal Date: Mon Jun 30 14:11:39 EDT 2025
Committee: ELT-AAA

Public Input No. 92-NFPA 75-2026 [Section No. 3.3.29]

3.3.29 Separate Fire Division.

A portion of a building cut off from all other portions of the building by fire ~~walls, fire doors~~ resistance rated assemblies, opening protectives , and/or other approved means adequate to prevent ~~any fire that can occur in one~~ fire spread from one fire division ~~from extending~~ to another fire division.

Statement of Problem and Substantiation for Public Input

Clarifies the language to the intended meaning. This corresponds with changing the language in a change to 6.1.3.4 to reference NFPA 80.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 89-NFPA 75-2026 [Section No. 3.3.9]	
Public Input No. 90-NFPA 75-2026 [Section No. 3.3.14]	
Public Input No. 91-NFPA 75-2026 [New Section after 3.3.13]	

Submitter Information Verification

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Submittal Date: Wed Jan 07 16:24:07 EST 2026
Committee: ELT-AAA

Public Input No. 45-NFPA 75-2025 [Section No. 3.4]

3.4 Aisle Containment.

3.4.1* Aisle.

The passageway between ITE or between ITE and a wall that allows personnel access to the ITE for service or operation of the equipment.

3.4.2* Aisle Containment.

~~An HVAC method deployed in the occupied area of an air-cooled ITE space utilizing physical separation of hot exhaust air from cooler intake air between equipment cabinets, rows of ITE, or associated power and cooling infrastructure; containment is typically above and at both ends of a hot aisle or a cold aisle, in whole or part~~ A method for improving HVAC performance when air is used for all or part of ITE cooling. Aisle containment separates cooling supply air from heated exhaust air by utilizing physical barriers running from the floor to the ceiling on some or all sides of rows of ITE and/or associated support equipment .

3.4.3* Cold Aisle.

The aisle ~~in front of the airflow intakes~~ on the side of ITE where HVAC ~~cooling airflow~~ cold/cooling air is controlled.

3.4.4 * Hot Aisle.

The aisle into which hot air exiting ITE equipment is controlled.

3.4.~~4~~ 5 * Hot Air Collar.

An inaccessible air conveyance assembly ~~used~~ attached to ~~direct heated exhaust air from~~ ITE cabinet(s), enclosure(s), or rack(s) that directs hot air directly to ~~a return air path.~~

~~**3.4.5 *** – Hot Aisle.~~

~~The aisle at the rear of the ITE where heated exhaust air is controlled and directed into the aisle for return to the HVAC equipment~~ the return/exhaust air stream .

Statement of Problem and Substantiation for Public Input

Revised for clarity and flow and to emphasize that aisles are accessible and collars are not.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 46-NFPA 75-2025 [Section No. A.3.4.2]	
Public Input No. 47-NFPA 75-2025 [Section No. A.3.4.4]	
Public Input No. 48-NFPA 75-2025 [Section No. A.3.4.5]	

Submitter Information Verification

Submitter Full Name: Charles Macaulay
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Zip:
Submittal Date: Thu Nov 13 15:29:27 EST 2025
Committee: ELT-AAA

Public Input No. 59-NFPA 75-2026 [Section No. 4.1 [Excluding any Sub-Sections]]

The fire protection approach for ITE systems, ITE rooms, and ITE areas shall be ~~permitted to be determined~~ according to Chapters 6 through 12 of this standard. Any reduction in the provision of fire protection from the prescriptive requirements shall be based on an evaluation of fire risks and hazards associated with the site and services provided and the business continuity planning and disaster restoration capabilities of the ITE specific to the site.

Statement of Problem and Substantiation for Public Input

Section 4.1 as written in the 2024 standard is difficult for many users to comprehend. This PI seeks to make the standard more direct and emphasize the prescriptive requirements and use the fire-risk based approach and performance-based design approach ways to deviate from the prescriptive requirements based on the situation found in that particular data center site. As the submitter, my feeling is very few data center fire protection designs begin with a detailed Fire Risk Assessment. In fact, I have never been involved with a data center project (as an installation contractor) where the Fire Risk Assessment has been discussed. My intent with this PI is to emphasize the prescriptive requirements of the standard and let the user rely on the Fire Risk Assessment as a tool for modifying the approach based on the specific project.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 60-NFPA 75-2026 [Section No. 4.1.2]	
Public Input No. 61-NFPA 75-2026 [New Section after 4.2.1]	
Public Input No. 62-NFPA 75-2026 [Section No. 4.1.3]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
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Street Address:
City:
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Submittal Date: Tue Jan 06 19:13:32 EST 2026
Committee: ELT-AAA

Public Input No. 60-NFPA 75-2026 [Section No. 4.1.2]

4.1.2

~~The fire protection approach shall be developed in conjunction with the considerations in 4.2.3 resulting in the use of one or both of the following strategies within ITE areas:~~

- ~~Prescriptive-based approaches in accordance with this standard~~

~~A fire risk–based approach in accordance with 4.1.3 and Section 4.2~~ Any deviations from the prescriptive requirements of this standard shall be based on an approved detailed Fire Risk Assessment following Section 4.2.

Statement of Problem and Substantiation for Public Input

This clears up pointing the user to when to use a Fire Risk Assessment to modify the prescriptive requirements of the standard.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 59-NFPA 75-2026 [Section No. 4.1 [Excluding any Sub-Sections]]	Associated with the change suggested in PI 59.

Submitter Information Verification

Submitter Full Name: Lee Kaiser
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Submittal Date: Wed Jan 07 09:32:40 EST 2026
Committee: ELT-AAA

Public Input No. 62-NFPA 75-2026 [Section No. 4.1.3]

~~4.1.3~~ –

~~A fire risk–based approach shall be permitted to be used to determine the construction, fire suppression, fire detection, and utility requirements for ITE systems, ITE rooms, and ITE areas where specifically permitted by this standard that are necessary to achieve the purpose of this standard.~~ ~~*(See Section 1.2 .)*~~

Move this section down to 4.2 - See PI 61

Statement of Problem and Substantiation for Public Input

Moving this section to 4.2.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 59-NFPA 75-2026 [Section No. 4.1 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
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Submittal Date: Wed Jan 07 10:47:53 EST 2026
Committee: ELT-AAA

Public Input No. 61-NFPA 75-2026 [New Section after 4.2.1]

Move this Section to 4.2

Move existing section 4.1.3 to be a new 4.2.1 and move the other bullets down.

"A fire risk–based approach shall be permitted to be used to determine the construction, fire suppression, fire detection, and utility requirements for ITE systems, ITE rooms, and ITE areas where specifically permitted by this standard. *(See Section 1.2 .)"*

Statement of Problem and Substantiation for Public Input

If PI 59 and 60 are accepted, this section should be moved to better associate this allowance to use a Fire Risk Assessment into the section on the topic.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 59-NFPA 75-2026 [Section No. 4.1 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
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Submittal Date: Wed Jan 07 10:41:40 EST 2026
Committee: ELT-AAA

Public Input No. 55-NFPA 75-2026 [Section No. 4.2.3]

4.2.3*

The following elements shall be considered to determine the level of acceptable fire risk documented as part of the fire risk assessment *(see also Annex C)*:

(1) * Life safety aspects of the computing function

(2) Life safety of occupants of ITE areas and adjacent spaces, emergency responders, and the general public

(3) Fire threat of the installation to occupants or exposed property

(4) Continuity of service, operation, and data access

(5) Size and value of ITE areas

(6) Economic loss from loss of function or loss of records

(7) Economic loss from value of damaged equipment

(8) Loss of customer data hosted on ITE

(9) Regulatory impact

(10) Reputation impact

(11) Construction and compartmentation of ITE areas

(12) Fire suppression and detection features provided for ITE areas

(13) Response time to an alarm

(14) Local firefighting capabilities

(15) Redundant infrastructure, including off-site processing systems

(16) Cybersecurity protections of fire protection and emergency communications systems or services, heat, load, and power management systems or services, including equipment and software deployment, maintenance, and interfaces to other systems, services, and networks.

Statement of Problem and Substantiation for Public Input

This public input is submitted on behalf of the NFPA Cybersecurity Advisory Committee. The scope of a Fire Risk Assessment does not traditionally include cybersecurity. But given the nature of ITE equipment, especially as it relates to increasingly numerous, large, sophisticated, and power dense data centers, software provides an increasing critical component of power, load, and heat management. These management systems, integral to data centers, are subject to cybersecurity threats. Compromises to these systems can be used to cause fires, exacerbate fires, or increase risks to first responders. Also fire related outages can increase the risk of cybersecurity attacks as they can lead to non-compliance with cybersecurity and data protection measures. While not traditionally an FRA consideration, for this application, cybersecurity plays a role beyond what is mandated in NFPA 72 Chapter 11 (being limited in scope to primarily fire alarm equipment) and should be at least a consideration in determining the acceptable level of fire risk.

Submitter Information Verification

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Affiliation: NFPA CAC (Chair)
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Submittal Date: Tue Jan 06 14:11:57 EST 2026
Committee: ELT-AAA

Public Input No. 94-NFPA 75-2026 [Section No. 5.5]

5.5* Qualifications.

The performance-based design documents shall be prepared by a licensed design professional with experience in fire protection, ITE and equipment areas and be acceptable to the AHJ.

Statement of Problem and Substantiation for Public Input

The design professional should be more than an FPE, they need to understand data and ITE areas.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Wed Jan 07 16:31:15 EST 2026
Committee: ELT-AAA

Public Input No. 3-NFPA 75-2024 [Section No. 5.6.3]

5.6.3

Design specifications and briefs used in the performance-based design shall be clearly stated ~~and shown to be realistic and sustainable~~ .

Statement of Problem and Substantiation for Public Input

The terms "realistic" and "sustainable" are ambiguous and unenforceable. The word "sustainable" is particularly confusing when considering the environmental context. At a minimum, the section should be rewritten as a list with explanatory annex material.

Submitter Information Verification

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Submittal Date: Wed Jun 05 13:05:46 EDT 2024
Committee: ELT-AAA

Public Input No. 93-NFPA 75-2026 [Section No. 5.9]

5.9 Maintenance of Design Features.

The design features required for the ITE area to continue to meet the performance goals and objectives of this standard shall be maintained for the ~~life~~ time it is used within the scope of the ~~building~~ specific design .

Statement of Problem and Substantiation for Public Input

The design professional should be more than an FPE, they need to understand data and ITE areas.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Street Address:
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Submittal Date: Wed Jan 07 16:28:49 EST 2026
Committee: ELT-AAA

Public Input No. 50-NFPA 75-2025 [Section No. 6.1.3.2]

6.1.3.2

The fire resistance rating shall be commensurate with the exposure but not less than 1 hour ~~for both~~ .

Statement of Problem and Substantiation for Public Input

There is no antecedent to which "for both" refers and it is not needed.

Submitter Information Verification

Submitter Full Name: Charles Macaulay
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Submittal Date: Wed Dec 17 17:57:44 EST 2025
Committee: ELT-AAA

Public Input No. 95-NFPA 75-2026 [Section No. 6.1.3.2]

6.1.3.2

The fire resistance rating shall be commensurate with the exposure but not less than 1 hour for both verticle and horizontal separations .

Statement of Problem and Substantiation for Public Input

The change is intended to improve the sentence structure grammatically.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Wed Jan 07 16:33:13 EST 2026
Committee: ELT-AAA

Public Input No. 96-NFPA 75-2026 [Section No. 6.1.3.4]

6.1.3.4

Every opening in the fire-resistant-rated construction shall be protected to limit the spread of fire and to restrict the movement of smoke from one side of the fire-resistant-rated construction to the other.~~- The fire resistance rating for doors shall be as follows:~~

(1) ~~2-hour fire-resistant-rated construction — 1 1/2 -hour fire-resistance-rated doors~~

(2) ~~1-hour fire-resistant-rated construction — 3/4 -hour fire-resistance-rated doors~~

Separations shall be rated in accordance with the appropriate construction standard based on the element to be protected. Opening protectives shall installed and maintained in accordance with NFPA 80 and NFPA 105.

Statement of Problem and Substantiation for Public Input

This proposal seeks to strengthen the requirements for opening protectives in communication facilities with ITE. The existing section only seems to address doors when modern facilities have many openings in them including cable runs, cooling infrastructure and HVAC openings. Rather than call out each element, providing reference to the construction standard requirement as well as NFPA 80 and NFPA 105 provides better guidance for both AHJ's and installation/design professionals

Submitter Information Verification

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Submittal Date: Wed Jan 07 16:34:49 EST 2026
Committee: ELT-AAA

Public Input No. 81-NFPA 75-2026 [Section No. 6.2.1]

6.2.1 Noncombustible Material.

6.2.1.1

A material that complies with any one of the following shall be considered a noncombustible material:

(1) * The material, in the form in which it is used, and under the conditions anticipated, will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat.

(2) The material is reported as passing ASTM E136, *Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C*.

(3) The material is reported as complying with the pass/fail criteria of ASTM E136 when tested in accordance with the test method and procedure in ASTM E2652, *Standard Test Method for Assessing Combustibility of Materials Using a Tube Furnace with a Cone-Shaped Airflow Stabilizer, at 750°C*.

[**5000:**7.1.4.1.1]

6.2.1.2

Where the term *limited-combustible* is used in this standard, it shall also include the term *noncombustible*.

[**5000:** 7.1.4.1.2]

6.2.1.3

The following materials shall not be required to be tested to be acceptable as noncombustible materials, provided they do not contain any combustible components:

(1) Glass

(2) Steel

(3) 3xxx, 5xxx, and 6xxx series aluminum alloys

(4) Concrete

(5) Masonry [5000:7.1.4.1.3]

Statement of Problem and Substantiation for Public Input

This updates the extract from NFPA 5000 by adding the information from SR 8115 where the materials are included that are clearly noncombustible and do not need to be tested. This replaces the vague statement (and unenforceable) about inherently noncombustible materials.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 82-NFPA 75-2026 [Sections A.6.2, A.6.2.1.1(1)]	
Public Input No. 82-NFPA 75-2026 [Sections A.6.2, A.6.2.1.1(1)]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Jan 07 14:15:18 EST 2026
Committee: ELT-AAA

Public Input No. 84-NFPA 75-2026 [Section No. 6.5.2]

6.5.2

Decking for raised floors shall be one of the following:

(1) Noncombustible

(2) Pressure-impregnated, fire-retardant-treated lumber having a flame spread index of 25 or less in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*

(3) Fire-retardant-treated wood complying with the requirements in Chapter 45 of NFPA 5000 or Chapter 5 of NFPA 793

(4) Wood or similar core material that is encased on the top and bottom with sheet, cast, or extruded metal, with all openings or cut edges covered with metal or plastic clips or grommets so that none of the core is exposed, and that has an assembly flame spread index of 25 or less in accordance with UL 723, *Test for Surface Burning Characteristics of Building Materials*

Statement of Problem and Substantiation for Public Input

Fire-retardant treated wood in accordance with NFPA 703 (chapter 5) or NFPA 5000 (Chapter 45) must meet a flame spread index of less than 25 as well as no significant progressive combustion. It is manufactured by impregnation of flame retardant by pressure treatment or any other means during manufacture and it is an upgrade on item 2 of the list, providing an added commercially available option. Coated wood is not an acceptable option.

NFPA 5000 and NFPA 703 need to be added into section 2 on referenced standards.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Jan 07 14:25:24 EST 2026
Committee: ELT-AAA

Public Input No. 97-NFPA 75-2026 [Section No. 6.7.1]

6.7.1

Aisle containment and hot air collar systems shall be permitted to be one of the following:

(1) Factory-packaged and aftermarket: systems designed, provided, and installed in accordance with the manufacturer's instructions

(2) Field-constructed: systems designed and constructed using common construction ~~materials~~ materials meeting the requirements of the building construction type and in accordance with 6.7.3.

Statement of Problem and Substantiation for Public Input

Construction needs to be in compliance with the governing building code for the type of structure and required ratings.

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Submittal Date: Wed Jan 07 16:36:58 EST 2026
Committee: ELT-AAA

Public Input No. 15-NFPA 75-2025 [Sections 6.7.7, 6.7.8, 6.7.9, 6.7.10]

Sections 6.7.7, 6.7.8, 6.7.9, 6.7.10

6.7.7

Where aisle containment systems are ~~installed~~ retrofit into existing ITE areas or existing building areas being converted to ITE use , the existing suppression and detection systems shall be evaluated, modified, and tested as necessary to ~~maintain compliance with the applicable codes and standards.~~

~~**6.7.8** –~~

~~Where automatic sprinklers are present and the application of aisle containment systems or hot air collars creates obstructions to proper operation of sprinkler systems, the sprinkler system shall be modified as necessary to comply with NFPA 13.~~

~~**6.7.8.1** * –~~

~~Sprinkler system modifications shall not be required where all of the following conditions are met:~~

(1)~~*~~ ~~An automatic means of smoke detection initiates the removal of the obstruction prior to operation of the suppression system.~~

(2) ~~Removing the obstruction or a portion thereof does not compromise means of egress per NFPA *101* .~~

(3) ~~The design and installation of removable obstruction elements does not diminish the level of protection that existed prior to the installation of the aisle containment or hot air collar.~~

(4)~~*~~ ~~The releasing devices are listed for the application.~~

(5) ~~All removable obstructions are removed for the entire suppression zone.~~

~~**6.7.9** –~~

~~Where gaseous suppression systems are present, they shall be designed to develop the required concentration of agent for the entire volume they serve, in accordance with NFPA 2001.~~

~~**6.7.10** –~~

~~If the aisle containment prevents the gaseous suppression system, where present, from producing the required design concentrations, the gaseous suppression system shall be modified to produce the required concentration throughout the volume served.~~

~~**6.7.10.1** * –~~

~~Gaseous suppression system modifications shall not be required where all the following conditions are met:~~

(1)~~*~~ ~~An automatic means of smoke detection initiates the removal of the obstruction prior to the suppression system operation.~~

(2) ~~Removing the obstruction or portion thereof does not compromise means of egress per NFPA *101* .~~

(3) ~~The design and installation of removable obstruction elements does not diminish the level of protection that existed prior to the installation of the aisle containment or hot air collar.~~

(4)~~*~~ ~~The releasing devices are listed for the application.~~

(5) ~~All removable obstructions are removed for the entire suppression zone.~~

meet the requirements of Chapter 9.

Statement of Problem and Substantiation for Public Input

Simplifies these requirements. All requirements regarding protection and detection where containment systems should be covered in Chapters 9 and 10. There are no significant differences between the items currently included for retrofit and the requirements in Chapters 9 and 10.

Submitter Information Verification

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Submittal Date: Thu Jul 10 16:01:01 EDT 2025
Committee: ELT-AAA

Public Input No. 86-NFPA 75-2026 [Section No. 7.1.2]

7.1.2

Small work areas shall be permitted within the ITE room if all the following conditions are met:

(1) Areas are not occupied on a full-time basis.

(2) Case furniture, including desks, is constructed of noncombustible material (e.g., metal). The construction can include a high-pressure laminate veneer on the desktop.

(3) Space dividers and system furniture panels ~~and chairs~~ exhibit a maximum rate of heat release not exceeding 80 kW (273,000 BTU/hr) and a maximum total heat release not exceeding 25 MJ (23,700 BTU) within the first 10 minutes of test where tested in accordance with NFPA 286

(4) Chairs with upholstered assemblies exhibit a maximum rate of heat release not exceeding 80 kW (273,000 BTU/hr) and a maximum total heat release not exceeding 25 MJ (23,700 BTU) within the first 10 minutes of test where tested in accordance with ASTM E1537, *Standard Test Method for Fire Testing of Upholstered Furniture*.

(5) Paper records, manuals, drawings, and all other combustible materials are stored in fully enclosed noncombustible cabinets or cases.

(6) The quantity of records, manuals, drawings, and all other combustible materials kept in the room are limited to the absolute minimum required for essential and efficient operation.

(7) Trash receptacles, where provided, are listed, provided with tight-fitting or self-closing lids, and constructed of materials that are either noncombustible or meet a peak heat release rate not exceeding 300 kW/m^2 (95,100 BTU/hr/ft^2) where tested 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 an incident heat flux of 50 kW/m^2 (15,850 BTU/hr/ft^2) in the horizontal orientation in accordance with UL 242, *Nonmetallic Containers for Waste Paper,* or UL 1315, *Containers for Waste Paper*.

Statement of Problem and Substantiation for Public Input

ASTM E1537 is a test for seating furniture and cannot be used for space dividers or system furniture panels. Such products are tested with a room corner test such as NFPA 286. The added section uses the same pass/fail criteria that NFPA 75 is using now.
NFPA 286 must be added to the references in chapter 2.

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Submittal Date: Wed Jan 07 14:39:29 EST 2026
Committee: ELT-AAA

Public Input No. 63-NFPA 75-2026 [New Section after 7.3]

New Section for Equipment Unpacking

7.4 ITE Unpacking Area

7.4.1 A designated area for unpacking ITE shall be provided.

7.4.2 Unpacking areas shall be kept free of sources of ignition.

7.4.3 Unpacking areas within ITE rooms shall have combustible packing materials removed on nightly basis.

Statement of Problem and Substantiation for Public Input

This is good minimum code language to add to the standard to give AHJs some control over the large quantities of cardboard, Styrofoam, and plastic that is used to ship IT equipment to data centers. Controlling the buildup of these materials limits the fuel available for a fire in the data center. This is in complement to the General Storage section, but specifically is for equipment unpacking.

Submitter Information Verification

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Submittal Date: Wed Jan 07 11:04:19 EST 2026
Committee: ELT-AAA

Public Input No. 64-NFPA 75-2026 [New Section after 8.2.2.4]

New Requirements for Liquid Cooled Servers

8.2.2.5 ITE Direct to Chip Cooling

8.2.2.5.1 For systems employing non-dialectric cooling fluids provide a means to protect battery modules from leaks near the server connections.

8.2.2.6 ITE Cold Plate Cooling

8.2.2.6.1 For systems using gaseous refrigerants provide ventilation in the ITE room containing the system condenser and the IT racks.

Statement of Problem and Substantiation for Public Input

These are new requirements for new liquid cooled server technologies.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 76-NFPA 75-2026 [New Section after A.8.2.1]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
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Submittal Date: Wed Jan 07 11:20:53 EST 2026
Committee: ELT-AAA

Public Input No. 111-NFPA 75-2026 [Section No. 8.3]

8.3* ITE with Integral Battery Backup.

8.3.1

Where ITE includes integral battery backup, the integral battery backup shall be included in the product listing.

8.3.2 Integral lithium batteries shall not exceed 25-gram LCE.

8.3.3

Where ITE includes integral battery backup, the ITE shall be installed and operated in accordance with its listing and the manufacturer's instructions.

Statement of Problem and Substantiation for Public Input

We are seeing an increasing number of chassis with on-board integral battery backup comprised of secondary (rechargeable) lithium-ion packs. ATIS also has a standard to address the fire risk of these products, ATIS 0600307.2024, from which the LCE limit is taken. 25 LCE is comparable to a laptop battery and presents an acceptable risk of fire spread in these environments.

Submitter Information Verification

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Affiliation: ATIS
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Submittal Date: Wed Jan 07 19:18:24 EST 2026
Committee: ELT-AAA

Public Input No. 20-NFPA 75-2025 [Chapter 9]

Chapter 9 Fire Protection and Detection Equipment

9.1 Automatic Fire Protection Systems.

9.1.1

ITE rooms and ITE areas located in a sprinklered building shall be provided with an automatic sprinkler system.

9.1.1.1

ITE rooms and ITE areas located in a nonsprinklered building shall be provided with one or more automatic fire suppression systems as permitted by Chapter 9.

9.1.1.2

The requirement of 9.1.1.1 shall be permitted to be evaluated as part of the fire risk assessment as outlined in Chapter 4.

9.1.1.3 *

An automatic fire suppression system, as permitted by

~~Chapter~~ 9

Chapter 9 , shall be provided for the protection of the

~~area~~

space below a raised floor or above a suspended ceiling in an ITE room or ITE area where the

~~area~~

volume below the raised floor or above the ceiling contains combustible material other than what is permitted in 9.1.1.4 .

9.1.1.

~~4~~

4

An automatic fire suppression system shall not be required for the protection of the

~~area~~

space below a raised floor or above the suspended ceiling in an ITE room or ITE area where

~~combustible~~

9.1.1.4.1 and 9.1.1.4.2 apply:

9.1.1.4.1

Combustible material under the floor or above the ceiling is limited to the following:

(1) Cables listed for plenum use

(2) Listed plenum communications raceways

(3) Listed equipment power cords up to 4.6 m (15 ft) each

(4) Cables installed in metallic raceways

(5) Installations in compliance with Section 300.22(C) of *NFPA 70*

(6) Listed cooling hoses

9.1.1.

~~5~~

~~Where a gaseous fire extinguishing system is provided only under a raised floor, the gaseous system shall be either carbon dioxide or an inert gas.~~

~~**9.1.1.6**~~

~~Where a clean agent fire extinguishing system is provided to protect the space above the raised floor, the space under the raised floor shall be simultaneously protected by the clean agent fire extinguishing system.~~

~~9.1.2~~

4.2

If aisle containment or collar systems are provided, sprinklers on maximum 8 ft. spacing are provided in the aisle/collar at or below the opening to the above ceiling plenum.

9.2 Automatic Sprinkler Systems

9.2.1 * _

Automatic sprinkler systems protecting ITE rooms or ITE areas shall be installed in accordance with NFPA 13 except where noted in this Chapter .

9.

1

2 .3 _

Sprinkler systems protecting ITE areas shall be valved separately from other sprinkler systems.

9.

1

2 .3.1 _

Valves shall be in an approved location that is exterior to the ITE room, readily accessible, and labeled as to what they control.

9. 2.4*

When preaction sprinkler systems are provided for the protection of ITE areas, those systems shall be equipped with an additional indicating control valve above the preaction valve as permitted by NFPA 13, 8.3. 1. 7. 4 to allow full trip testing of the preaction system per NFPA 25, 13.4.3.2.2 without flooding the sprinkler piping in the ITE area.

9.2.5

Where aisle containment or hot air collars are provided, the sprinkler system shall be designed and installed to account for the obstructions presented by the containment or collar structure. _

9.2.6 * _

Automated information storage system (AISS) units containing combustible media with an aggregate storage capacity of more than 0.76 m^3 (27 ft^3) shall be protected within each unit by an automatic sprinkler system or a gaseous agent extinguishing system with extended discharge.

9. 2.6. 1

.5

_

The requirement of 9.

1

2 .

4 shall

6 shall be permitted to be evaluated as part of the fire risk assessment as outlined in Chapter 4 .

9.

1

2 .

6

7 _

Automatic sprinkler systems protecting ITE rooms or ITE areas shall be maintained in accordance with NFPA 25.

9.

2

3 * _ Automatic Detection Systems.

9.

2

3 .1 * _

Automatic detection equipment shall be installed to provide early warning of fire.

9.

2

3 .1.1 _

The equipment used shall be a listed smoke detection–type system installed and maintained in accordance with *NFPA 72* .

9.

2

3 .1.2 _

Each of the ITE areas, including aisle containment and hot air collar systems, where present, shall be evaluated to determine the hazards and ambient conditions that are present and the corresponding performance level of the detection system.

9.

2

3 .2 * _

Automatic detection systems shall be installed to provide early warning of fire in the following locations:

(1) At the ceiling level throughout the ITE area

(2) Below the raised floor of the ITE area containing cables

(3) * In the exhaust/return air stream where aisle containment systems are used

(4) In the return air stream where

the above ceiling area is used as a return air plenum9.2.

(1) cabling is routed through the return air plenum and/or 100% of air does not pass through an aisle containment system where detection is provided per 9.3.2(3).

9.3. 2.1 _

Smoke detectors or sampling ports installed on return air openings shall have a coverage area of no more than

0

1 .4 m 2 (

4 ft

16 ft 2).

9.

2

3.3* Where detection is used for the monitoring of fire in individual ITE cabinets, the following shall be met:

(1) Detectors or sampling ports shall be located in the main airflow at the exhaust vents, downstream of the airflow distribution path, or in accordance with the manufacturer's published instructions.

(2) Multiple detectors or ports shall be provided when the cabinet has multiple outlet vents.

(3) If the cabinet is compartmentalized, each compartment shall have a detector or port.

(4) Where cabinets are fitted with in-cabinet suppression systems, the detection system shall provide an alarm signal for each cabinet or group of cabinets if the suppression system is to be released into several cabinets simultaneously.

9.

~~2~~

3.4 Where detection is used for the monitoring of fire in ITE with close-coupled cooling units, detectors or sampling ports shall be provided at the return inlets.

9.

~~2~~

3.5 In the ITE area, where the space above the suspended ceiling or below the raised access floor is used to circulate air to other parts of the building, automatic smoke detection shall be installed in one of the following locations to operate the smoke dampers required by 6.6.3 :

(1) Throughout the above ceiling space or below raised access floor space

(2) At each smoke damper

(3) At other approved locations to detect smoke entering or exiting the ITE area

9.

~~2~~

3.6 Where interlock and shutdown devices are provided, the electrical power to the interlocks and shutdown devices shall be supervised by the fire alarm control panel.

9.

~~2~~

3.7 Where power is required for the operation of the disconnecting means in 11.4.5 , that electrical power shall be supervised by the fire alarm control panel.

9.

~~2~~

3.8 The alarms and trouble signals of automatic detection or extinguishing systems shall be arranged to annunciate at a constantly attended location.

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~~3~~

4 Portable Extinguishers.

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3

4.1

Listed portable fire extinguishers of the carbon dioxide type or a halogenated agent type shall be provided for the protection of electronic equipment. The extinguishers shall be maintained in accordance with NFPA 10.

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3

4.2*

Listed extinguishers with a minimum rating of 2-A shall be provided for use on fires in ordinary combustible materials, such as paper and plastics. Dry chemical extinguishers shall not be permitted.

9.

3

4.3

A sign shall be located adjacent to each portable extinguisher and shall plainly indicate the type of fire for which it is intended.

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4

5 Gaseous Total Flooding Extinguishing Systems.

9.

4

5.1*

Where there is a critical need to protect data in process, reduce equipment damage, and facilitate return to service, consideration shall be given to the use of a gaseous agent inside units or total flooding systems in sprinklered or nonsprinklered ITE areas.

9.

4

5.2

Where gaseous agent or inert gas agent total flooding systems are used, they shall be designed, installed, and maintained in accordance with the requirements of NFPA 12, NFPA 12A, or NFPA 2001. The agent selected shall not cause damage to the ITE systems and media. *(See Annex D.)*

9.

4

5.2.1

The power to all electronic equipment shall be disconnected upon activation of a gaseous agent total flooding system, unless the risk considerations outlined in Chapter 4 indicate the need for continuous power.

9.

4

5 .3 * _

Hot aisle or cold aisle containment systems shall not obstruct the free flow of gaseous clean agent suppression systems to the ITE or cooling system serving the contained aisle within an ITE room or zone.

9.

~~4~~

5 .4

*** _**

_

Where a gaseous fire extinguishing system is provided only under a raised floor, the gaseous system shall be either carbon dioxide or an inert gas.

9.5.5 _

Where a clean agent fire extinguishing system is provided to protect the space above the raised floor, the space under the raised floor shall be simultaneously protected by the clean agent fire extinguishing system.

9.5.6 * _ _

Gaseous agent systems shall be automatically actuated by an approved method of detection meeting the requirements of *NFPA 72* and a listed releasing device compatible with the system.

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~~4~~

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~~5~~

7 * _

Where operation of the air-handling system would exhaust the agent supply, it shall be interlocked to shut down when the extinguishing system is actuated.

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~~4~~

5 .

~~6~~

8 * _

Alarms shall be provided to give positive warning of a pending discharge and an actual discharge.

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~~5~~

6 _ Warning Signs.

Where continuous power is provided, signs shall be posted at each perimeter entrance to the ITE areas warning that electrical equipment will remain energized, either upon activation of the suppression system or disconnect of main electrical service.

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~~6~~

7 * _ In-Building Emergency Responder Communications Enhancement Systems.

Where in-building emergency responder communications enhancement systems are required for the building, such systems shall be installed to minimize interference with ITE in accordance with NFPA 1225.

9.

~~7~~

8 _ Training.

Designated ITE area personnel shall be continually and thoroughly trained in the functioning of the alarm system, desired response to alarm conditions, location of all emergency equipment and tools, and use of all available extinguishing equipment. This training shall encompass both the capabilities and the limitations of each available type of extinguisher and the proper operating procedures of the extinguishing systems.

9.

~~8~~

9 _ Expansion or Renovations.

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~~8~~

9 .1 _

Whenever changes are made to the ITE area — for example, size, installation of new partitions, modification of the air-handling systems, addition or modification of aisle containment or hot collar system or other revised ITE layout — the potential impact on existing fire detection and extinguishing systems shall be evaluated and corrective changes shall be made if necessary to maintain compliance with this code .

9.

~~8.2~~

9.1.1*

Modifications to the installed suppression system shall not be required where aisle containment systems are retrofit into an existing protected space and all of the following conditions are met:

(1)* An automatic means of smoke detection initiates the removal of the obstructions created by the aisle containment prior to operation of the suppression system.

(2) Removing the obstructions created by the aisle containment system or portion thereof does not compromise means of egress per NFPA 101./

(3) The design ans installation of removable obstruction elements does not diminish the level of protection that existed prior to the installation of the aisle containment system

(4)* The releasing devices are listed for the application.

(5) All removable aisle containment system obstructions are removed for the entire suppression zone.

9.9.2 _

Modifications or alterations as outlined in 9.8.1 shall be submitted to the AHJ for approval.

9.

~~9~~

10 _ Hybrid Fire-Extinguishing Systems.

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~~9~~

10 .1 _

Where provided, hybrid fire-extinguishing systems shall be installed in accordance with NFPA 770.

9.

~~9~~

10 .2 _

Hybrid fire-extinguishing systems shall be designed and installed for the specific hazards and protection objectives of ITE areas in accordance with the listing.

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~~9~~

10 .3 _

Detection systems used for the operation of hybrid fire-extinguishing systems shall be installed in accordance with the listing criteria.

9.

~~10~~

11 _ Water Mist Fire Protection Systems.

9.

~~10~~

11 .1 _

Where provided, water mist fire protection systems shall be installed in accordance with the requirements of NFPA 750.

9.

~~10~~

11 .2 _

Water mist fire protection systems shall be designed and installed for the specific hazards and protection objectives in ITE areas in accordance with the listing.

9.

~~10~~

11 .3

_

Detection systems utilized for the operation of water mist fire protection systems shall be installed in accordance with the listing criteria.

Statement of Problem and Substantiation for Public Input

Reorganized for simplicity/flow. Major change is to eliminate requirement for sprinkler protection in noncombustible return air plenum when the opening to the plenum is protected. Also clarifies that redundant detection in return air stream is not needed.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 35-NFPA 75-2025 [Sections A.9.1.1.3, A.9.1.2, A.9.1.4, A.9.2, A.9.2.1, A.9.2...]	

Submitter Information Verification

Submitter Full Name: Charles Macaulay
Organization: Microsoft Data Center Operatio
Street Address:
City:

State:
Zip:
Submittal Date: Fri Jul 11 14:46:16 EDT 2025
Committee: ELT-AAA

Public Input No. 65-NFPA 75-2026 [Section No. 9.1.1.5]

9.1.1.5

Where a gaseous fire extinguishing system is provided only under a raised floor, the gaseous system shall ~~be either carbon dioxide or~~ be an inert gas.

Statement of Problem and Substantiation for Public Input

This modernizes the standard. My company does not see CO2 systems used for unferfloor-only suppression systems. We do see inert gas systems being used and have installed them for underfloor only systems.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 73-NFPA 75-2026 [Section No. 9.4.2 [Excluding any Sub-Sections]]	
Public Input No. 75-NFPA 75-2026 [Section No. 2.2]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
Organization: ORR Protection Systems
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jan 07 11:58:58 EST 2026
Committee: ELT-AAA

Public Input No. 40-NFPA 75-2025 [Section No. 9.1.2]

9.1.2*

Automatic sprinkler systems protecting ITE rooms or ITE areas shall be installed in accordance with NFPA 13 as an ordinary hazard group 1 hazard classification unless indicates a fire risk assessment indicates another hazard classification is appropriate .

Statement of Problem and Substantiation for Public Input

During the first draft meeting of NFPA 13 - 2028 SSD technical committee, section A.4.3.2(12) for data processing as a typical example of a light hazard classification was deleted. The technical committee statement for the deletion was XXXXXXX. This public input is an attempt to set a minimum hazard classification for rooms under NFPA 75 requirements. If a fire risk assessment indicates a lower or higher hazard classification, that hazard classification should take precedent.

Submitter Information Verification

Submitter Full Name: John Denhardt
Organization: American Fire Sprinkler Association
Street Address:
City:
State:
Zip:
Submittal Date: Thu Aug 07 17:19:47 EDT 2025
Committee: ELT-AAA

Public Input No. 49-NFPA 75-2025 [Section No. 9.2.2 [Excluding any Sub-Sections]]

Automatic detection systems shall be installed to provide early warning of fire in the following locations:

(1) At the ceiling level throughout the ITE area

(2) Below the raised floor of the ITE area containing cables

(3) * In the exhaust/return air stream where aisle containment or in-row/in-rack cooling systems are used

(4) In the return air stream where the above ceiling area is used as a return air plenum

Statement of Problem and Substantiation for Public Input

In-row and in-rack cooling systems are increasingly common and they may not necessary be paired with traditional aisle containment. This modification makes it clear that there must be detection in a exhaust from in-row and in-rack systems for timely detection of smoke.

Submitter Information Verification

Submitter Full Name: Scott Lang
Organization: Honeywell International
Street Address:
City:
State:
Zip:
Submittal Date: Wed Dec 10 09:05:41 EST 2025
Committee: ELT-AAA

Public Input No. 72-NFPA 75-2026 [Section No. 9.2.2.1]

9.2.2.1

Smoke detectors or sampling ports installed on return air openings shall have a coverage area ~~of no more than 0.4 m^2 (4 ft^2).~~ as permitted by the manufacturer and consistant with the product listing.

Statement of Problem and Substantiation for Public Input

I am unable to verify the spacing requirements for detectors on return air grilles, but the current spacing seems very extreme in high flow, turbulent air flow environments. A better approach would be to reference manufacturer's requirements.

Submitter Information Verification

Submitter Full Name: Richard Kluge
Organization: NEBScore Inc.
Affiliation: ATIS
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jan 07 13:29:18 EST 2026
Committee: ELT-AAA

Public Input No. 98-NFPA 75-2026 [Section No. 9.2.4]

9.2.4 ~~–~~

~~Where~~

Detection Devices

9.2.4.1 Where smoke detection is used for the monitoring of fire in ITE with close-coupled cooling units, detectors or sampling ports shall be provided at the return inlets.

9.2.4.2. Gas detection systems required by Chapter 11 or NFPA 855 shall be installed in all portions of a separate fire division containing batteries.

Statement of Problem and Substantiation for Public Input

There are other types of detection devices that may be installed in ITE areas. Because of the unique construction of ITE areas like data centers where there are multiple tenants, and a number of fire divisions, it becomes important to ensure that gas detection systems are appropriately installed, but only in areas in which they are needed.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL Solutions
Street Address:
City:
State:
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Submittal Date: Wed Jan 07 16:39:19 EST 2026
Committee: ELT-AAA

Public Input No. 71-NFPA 75-2026 [New Section after 9.2.8]

Difficulties Replacing Existing Air Sampling Smoke Detectors

New section

9.2.9 When replacing existing an air-sampling detector in an existing ITE Room or area, the pipe network and port spacing can be re-used provided it meets UL 268 6th edition requirements.

Statement of Problem and Substantiation for Public Input

The UL 268 7th edition changes are requiring the doubling of air sampling detectors in many existing facilities. The new requirements for ASDs often require the addition of a second detector to a space that was fine under the 6th edition. There is little tangible benefit to the occupancies using ASDs in having a second detector and it adds unnecessary cost to situations where an existing ASD detector has failed or is obsolete.

Submitter Information Verification

Submitter Full Name: Lee Kaiser
Organization: ORR Protection Systems
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jan 07 13:28:03 EST 2026
Committee: ELT-AAA

Public Input No. 74-NFPA 75-2026 [Section No. 9.3.2]

9.3.2*

Listed extinguishers with a minimum rating of 2-A shall be provided for use on fires in ordinary combustible materials, such as paper and plastics. ~~Dry chemical extinguishers shall not be permitted~~

New add to Annex:

Site operators may want to restrict the use of dry-chem extinguishers in spaces where their use could damage sensitve equipment away from the immediate fire area .

Statement of Problem and Substantiation for Public Input

Clean agent extinguishers can be between 3 to 10 times more expensive than dry-chem types. There may be some cases where the deployment of dry-chem types is justified. This can be left as a business decision.

Submitter Information Verification

Submitter Full Name: Richard Kluge
Organization: NEBScore Inc.
Affiliation: ATIS
Street Address:
City:
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Zip:
Submittal Date: Wed Jan 07 13:33:38 EST 2026
Committee: ELT-AAA

Public Input No. 67-NFPA 75-2026 [New Section after 9.4.1]

Clean Agents Required for High Density ITE Rooms

New section

9.4.2 In ITE rooms containing two or more racks requiring 50kW of power per rack or higher a clean agent system shall be provided.

Statement of Problem and Substantiation for Public Input

In data centers being built today which have rack densities in excess of 30 kW liquid cooling strategies are being employed. Two things change the environment when this occurs. First, the physical density of utilities serving the racks (cooling pipes, power distribution, and data connections) all begin to be crammed into the data center space increasing the challenge for water spray distribution from the sprinkler system. Second, the capital cost of the data center rises significantly (today costs in an AI data center exceed $8 million of equipment per rack). Clean agents systems can address both problems -- the difficulty of addressing where the fire is occurring because of the utility obstructions and minimizing the damage from a fire to maximize a return to service.

Prior to the use of GPUs, CPU based server racks would occasionally exceed rack power consumptions higher than 30 kW. This code change allows for those exception situations, but will catch new data centers being built for AI and data center upfits for high performance computing clusters where liquid cooling for servers is selectively applied.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 83-NFPA 75-2026 [New Section after A.9.4.3]	

Submitter Information Verification

Submitter Full Name: Lee Kaiser
Organization: ORR Protection Systems
Street Address:
City:
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Zip:
Submittal Date: Wed Jan 07 13:05:03 EST 2026
Committee: ELT-AAA

Public Input No. 73-NFPA 75-2026 [Section No. 9.4.2 [Excluding any Sub-Sections]]

Where gaseous agent or inert gas agent total flooding systems are used, they shall be designed, installed, and maintained in accordance with the requirements ~~of NFPA 12,~~ of NFPA 12A, or NFPA 2001. The agent selected shall not cause damage to the ITE systems and media. *(See Annex D.)*

Statement of Problem and Substantiation for Public Input

Trying to remove CO2 systems from use in data centers for safety reasons.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 65-NFPA 75-2026 [Section No. 9.1.1.5]	Working to remove all NFPA 12 references

Submitter Information Verification

Submitter Full Name: Lee Kaiser
Organization: ORR Protection Systems
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jan 07 13:33:33 EST 2026
Committee: ELT-AAA

Public Input No. 99-NFPA 75-2026 [Section No. 9.8.1]

9.8.1

Whenever changes are made to the ITE area — for example, size, installation of new partitions, modification of the air-handling systems, or revised ITE layout — the potential impact on existing fire detection and extinguishing systems shall be evaluated ~~and corrective~~ by a design professional familiar with the design, and provided in a report provided to the AHJ. Corrective changes shall be made if necessary.

Statement of Problem and Substantiation for Public Input

Any changes made to an ITE area should be made by a registered design professional with experience in ITE areas. Anything done by the designer should also be reported to the AHJ.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jan 07 16:42:31 EST 2026
Committee: ELT-AAA

Public Input No. 100-NFPA 75-2026 [Chapter 11]

Chapter 11– ~~Utilities~~ Building Services and Systems

11.1 Heating, Ventilating, and Air Conditioning (HVAC).

11.1.1

All materials and products, including the materials of construction of the HVAC system, shall comply with the requirements of NFPA 90A.

11.1.2*

Any HVAC system that serves other occupancies shall also be permitted to serve the ITE area.

11.1.3

Dampers in HVAC systems serving ITE areas shall operate upon activation of smoke detectors and by operation of the disconnecting means required by 11.4.5. The automatic fire and smoke dampers required by 6.6.3 shall also operate upon activation of smoke detectors and by operation of disconnecting means required by 11.4.5.

11.1.4

Air ducts that pass through the information technology area and only serve other rooms shall be provided with fire dampers.

11.1.5

All pipe and duct insulation and linings, including vapor barriers and coatings, shall have a flame spread index of 25 or less without evidence of continued progressive combustion and a smoke developed index no higher than 50, in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*.

11.1.6*

Air filters for use in air-conditioning systems shall comply with the requirements of UL 900, *Air Filter Units.*

11.2* Coolant Systems.

If a separate coolant system is required for operation of an ITE installation, the system shall be provided with an approved alarm to indicate loss of liquid.

11.3* Electrical Service.

Equipment, power-supply wiring, equipment interconnecting wiring, and grounding of ITE and systems in an ITE room shall comply with this section.

11.3.1*

Installation of all electrical equipment and wiring and all optical fiber cabling shall conform to *NFPA 70*.

11.3.2

Transformers installed in the ITE area shall be of the dry type or the type filled with a noncombustible dielectric medium. Such transformers shall be installed in accordance with the requirements of Article 450 of *NFPA 70*.

11.3.3

Service entrance transformers shall not be permitted in the electronic ITE area.

11.3.4*

Protection against overvoltage shall be provided in accordance with Article 242 of *NFPA 70*.

11.3.4.1

Surge protective devices shall be listed and labeled in accordance with UL 1449, *Surge Protective Devices*.

11.3.5

Emergency lighting shall be provided in the ITE area.

11.3.6

All electrical wiring and optical fiber cabling in the air space above a suspended ceiling shall conform to the requirements in NFPA 90A for installation in a ceiling cavity plenum and to the requirements in *NFPA 70* for installation in "other spaces used for environmental air" when that air space is used for the movement of air.

11.3.7*

Signal wiring and cabling, including optical fiber cables, installed in an air space below a raised floor shall be listed.

11.3.7.1

Where the air space below a raised floor is protected by an automatic fire suppression system, signal wiring and cabling listed for plenum, riser, and general-purpose use shall be permitted to be installed exposed to the airflow in the air space.

11.3.7.2

Where the air space below a raised floor is not protected by an automatic fire suppression system, only signal wiring and cabling listed for plenum use shall be permitted to be installed exposed to the airflow in the air space.

11.3.7.3

Where the air space below a raised floor is not protected by an automatic fire suppression system, signal wiring and cabling listed for plenum, riser, and general-purpose use shall be permitted to be installed in metal raceways in the air space.

11.3.8

Electrical power supply cords up to 4.6 m (15 ft) in length shall be permitted in an air space below a raised floor.

11.4 Supply Circuits and Interconnecting Cables.

11.4.1 Interconnecting Cables.

Separate ITE units shall be permitted to be interconnected by means of listed cables and cable assemblies.

11.4.2

The 4.6 m (15 ft) limitation on power cords shall not apply to interconnecting cables.

11.4.3* Abandoned Cables.

The accessible portion of abandoned cables shall be removed unless contained in a raceway.

11.4.4 Installed Circuits and Cables Identified for Future Use.

11.4.4.1

Circuits and cables shall be permitted to be installed in ITE areas and identified for future use if they comply with 11.4.4.2 and 11.4.4.3.

11.4.4.2

The circuits and cables shall be marked with a tag of sufficient durability to withstand the environment involved.

11.4.4.3

The tags shall have the following information:

(1) Date identified for future use

(2) Date of intended use

(3) Information relating to the intended future use

11.4.5 Disconnecting Means.

11.4.5.1*

An approved means shall be provided to disconnect power to all electronic equipment in the ITE room or in designated zones within the room.

11.4.5.2*

There shall be a similar approved means to disconnect the power to all dedicated HVAC systems serving the room or designated zones.

11.4.5.3

Activation of an HVAC disconnecting means shall cause all required fire/smoke dampers to close.

11.4.5.4*

Disconnecting means shall be implemented by one of the methods listed in 11.4.5.4.1 through 11.4.5.4.2.

11.4.5.4.1 Remote Disconnect Controls.

11.4.5.4.1.1

Remote disconnect controls shall be located at approved locations readily accessible in case of fire to authorized personnel and emergency responders.

11.4.5.4.1.2

The remote disconnect controls for the control of electronic equipment power and HVAC systems shall be grouped and identified.

11.4.5.4.1.3

A single means to control electronic equipment power and HVAC systems shall be permitted.

11.4.5.4.1.4

Where multiple zones are created, each zone shall have an approved means to confine fire or products of combustion to within the zone.

11.4.5.4.1.5

Additional means to prevent unintentional operation of remote disconnect controls shall be permitted.

11.4.5.4.2 Alternative Disconnecting Means.

Remote disconnecting controls shall not be required where all the following criteria are met:

(1) An approved procedure has been established and maintained for removing power and air movement within the room or zone.

(2) Qualified personnel are continuously available to advise emergency responders and to instruct them of disconnecting methods.

(3) A smoke-sensing fire detection system is in accordance with Chapter 9.

(4) An approved fire protection system is in accordance with Chapter 9.

(5) Cables installed under a raised floor, other than branch circuit wiring and power cords, are installed in compliance with *NFPA 70*, Sections 645.5(D)(2) or (3), or are in compliance with *NFPA 70*.

11.4.5.5*

Installations qualifying under the provisions of Article 685 of *NFPA 70* shall be permitted.

11.4.6 Marking.

Each unit of an information technology system supplied by a branch circuit shall be provided with a manufacturer's nameplate, which shall also include the input power requirements for voltage, frequency, and maximum rated load in amperes. [**70:**645.16]

11.5 Uninterruptible Power Supplies (UPSs).

11.5.1 UPS Systems.

UPS systems installed within the information technology equipment [ITE] room, and their supply and output circuits, shall comply with 11.4.5, except for the following installations and constructions:

(1) Installations complying with Parts I and II of Article 685

(2) Power sources limited to 750 volt-amperes or less derived either from UPS equipment or from battery circuits integral to electronic equipment

[**70:**645.11]

11.5.1.1

The disconnecting means shall also disconnect the battery from its load. [**70:**645.11]

11.5.1.2

Storage battery systems in the ITE area shall comply with the requirements of Article 480 of *NFPA 70*.

11.5.2 Batteries.

Batteries used in ITE UPS systems exceeding the quantities in 11.5.3.1 shall comply with this chapter.

11.5.2.1 Location and Occupancy Separation.

11.5.2.1.1

Battery systems shall be permitted in the same room as the equipment that they support.

11.5.2.1.2

Battery systems shall be housed in a noncombustible, locked cabinet or other enclosure to prevent access by unauthorized personnel unless located in an equipment room accessible only to authorized personnel.

11.5.2.1.3

Battery systems shall be located in a room separated from other portions of the building by a minimum of a 1-hour fire barrier.

11.5.2.1.4

Where the ITE is located in a structure or building housing multiple tenants or occupancies that include assembly, educational, detention, and correction facilities, health care, ambulatory care, and day care center, and residential board and care and residential occupancies, battery systems shall be located in a room separated from other portions of the building by a minimum of a 2-hour fire barrier.

11.5.2.2 Environment.

The battery environment shall be controlled or analyzed to maintain temperature in a safe operating range for the specific battery technology used.

11.5.2.3 Labels.

Battery cabinets shall be provided with exterior labels that identify the manufacturer and model number of the system and electrical rating (i.e., voltage and current) of the contained battery system.

11.5.2.4 Signs.

Signs shall be provided within battery cabinets to indicate the relevant electrical, chemical, and fire hazard.

11.5.2.5 Seismic Protection.

Battery systems shall be seismically braced in accordance with the building code.

11.5.2.6 Smoke Detection.

An approved automatic smoke detection system shall be installed in rooms containing stationary battery storage systems in accordance with *NFPA 72*.

11.5.2.7

A failure modes and effects analysis shall be performed in accordance with NFPA 855 if the chemistry (i.e., type) of the batteries constituting a battery system is changed.

11.5.3 Lead-Acid and Nickel-Cadmium Batteries.

11.5.3.1 General.

UPS systems having an electrolyte capacity of more than 100 gal (378.5 L) in sprinklered buildings or 50 gal (189.3 L) in unsprinklered buildings for vented lead-acid, nickel-cadmium (NiCad), and valve-regulated lead-acid (VRLA) batteries shall be in accordance with 11.5.3 and Table 11.5.3.1.

Table 11.5.3.1 Lead-Acid and Nickel-Cadmium Battery Requirements

	Nonrecombinant Batteries		Recombinant Batteries
Requirement	Vented Lead-Acid	Vented Nickel-Cadmium (NiCad)	Valve-Regulated Lead-Acid (VRLA)
Safety caps	Venting caps	Venting caps	Self-resealing flame-arresting caps
Thermal runaway management	Not required	Not required	Required
Spill control	Required	Required	Not required
Neutralization	Required	Required	Not required
Ventilation	Required	Required	Required
Signage	Required	Required	Required
Seismic control	Required	Required	Required
Fire detection	Required	Required	Required

11.5.3.2 Safety Features.

11.5.3.2.1 Safety Venting.

Batteries shall be provided with safety venting caps per 11.5.3.2.1.1 and 11.5.3.2.1.2.

11.5.3.2.1.1 Nonrecombinant Batteries.

Vented lead-acid and nickel-cadmium shall be provided with safety venting caps.

11.5.3.2.1.2 Recombinant Batteries.

VRLA shall be equipped with self-resealing flame-arresting safety vents.

11.5.3.2.2 Thermal Runaway.

VRLA systems shall be provided with a listed device or other approved method to preclude, detect, and control thermal runaway.

11.5.3.2.3 Spill Control.

11.5.3.2.3.1

Rooms containing free-flowing liquid electrolyte in multiple vessels having an aggregate capacity exceeding 1000 gal (3785 L) shall be provided with spill control to prevent the flow of liquids to adjoining areas.

11.5.3.2.3.2*

The approved spill control method shall be capable of controlling a spill from the single largest vessel.

11.5.3.2.3.3

VRLA batteries with immobilized electrolyte shall not require spill control.

11.5.3.2.4 Neutralization.

11.5.3.2.4.1*

An approved method to neutralize spilled electrolyte shall be provided.

11.5.3.2.4.2

For vented lead-acid and nickel-cadmium batteries, the method shall be capable of neutralizing a spill from the largest battery to a pH between 7.0 and 9.0.

11.5.3.2.5* Ventilation.

For vented lead-acid, flooded nickel-cadmium, and VRLA batteries, ventilation shall be provided for rooms and cabinets in accordance with the mechanical code and one of the following:

(1) The ventilation system shall be designed to limit the maximum concentration of hydrogen to 1.0 percent of the total volume of the room during the worst-case event of simultaneous "boost" charging of all the batteries, in accordance with nationally recognized standards.

(2) Continuous ventilation shall be provided at a rate of not less than 1 $ft^3/min/ft^2$ (5.1 $L/sec/m^2$) of floor area of the room or cabinet.

11.5.3.2.6 Signs.

11.5.3.2.6.1

Doors or accesses into the following shall be provided with approved signs:

(1) Rooms containing stationary storage battery systems

(2) Other areas containing stationary storage battery systems

11.5.3.2.6.2

For rooms that contain VRLA batteries, the signs required by 11.5.3.2.6.1 shall state the following:

This room contains:

(1) Stationary storage battery systems

(2) Energized electrical circuits

11.5.3.2.6.3

For rooms that contain lead-acid or vented NiCad batteries, the signs required by 11.5.3.2.6.1 shall state the following:

This room contains:

(1) Stationary storage battery systems

(2) Energized electrical circuits

(3) Corrosive battery electrolyte

11.5.4* Other Battery Types.

Battery types other than those addressed in 11.5.3 shall comply with Chapter 52 of NFPA 1.

11.5.4.1* Lithium-Ion Batteries.

Where installed, off-gas detection systems that monitor for electrolyte vapor released prior to thermal runaway shall be listed or approved, and installed in accordance with the manufacturer's published instructions.

11.5.4.2

When lithium-ion batteries in a UPS are replaced with new batteries, replacement batteries shall be in accordance with the listing of the UPS.

Statement of Problem and Substantiation for Public Input

The current title could confuse users in that they may think the chapter only addresses public utilities and not realizing that Chapter 11 is about building utilities installed to support the operation.

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Submittal Date: Wed Jan 07 16:45:23 EST 2026
Committee: ELT-AAA

Public Input No. 102-NFPA 75-2026 [Section No. 11.1.1]

11.1.1

All materials and products, including the materials of construction of the HVAC system, shall comply with the requirements of ~~NFPA 90A.~~ NFPA 90A and be listed for the intended purpose.

.

Statement of Problem and Substantiation for Public Input

Listing equipment to appropriate standards ensures the safety of those products, while also ensuring that the manufacturers installation instructions are followed.

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Committee: ELT-AAA

Public Input No. 39-NFPA 75-2025 [New Section after 11.1.6]

11.1.7* Flammable Refrigerants

Flammable refrigerants shall be classified as A2L per ASHRAE Standard 34.

A11.1.7

Nonflammable refrigerants are preferred from a fire protection perspective. However, other code requirements may dictate the use of other refrigerants.

Statement of Problem and Substantiation for Public Input

Issue is not currently addressed and should be.

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Submittal Date: Mon Aug 04 17:49:58 EDT 2025
Committee: ELT-AAA

Public Input No. 101-NFPA 75-2026 [Section No. 11.2]

11.2* ~~Coolant Systems.~~

~~If a separate coolant system is required for operation of an ITE installation, the system shall be provided with an approved alarm to indicate loss of liquid.~~

Cooling Systems.

11.2.1. Leak detection shall be provided for all ITE areas where liquid cooling is present.

11.2.2. Cooling system equipment shall be listed and labeled in accordance with UL 62368 or UL 600335-2-40.

11.2.3. Cooling Fluids.

11.2.3.1. Mechanical refrigeration systems installed as part of a cooling system shall comply with ASHRAE 15, and shall be listed and labeled for their intended use.

11.2.3.2. Fluids used in cooling applications for ITEshall be evaluated for material compatibility with all piping, tubing, tanks, and ITE.

11.2.3.3. The storage, handling and use of Fflammable or combustible liquids used for cooling shall comply with NFPA 30.

If approved, add to Chapter 2: ASHRAE 15, Safety Code for Mechanical Refrigeration, 2024.

If approved, add to Chapter 2: UL 60335-2-40 Household and Similar Electrical Appliances – Safety – Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers.

Statement of Problem and Substantiation for Public Input

Cooling systems are one of the fastest changing elements in the IT space. Systems that have previously relied upon air cooling are now using liquids. Splitting up this section is needed now, and will be needed as additional technologies are used. The changes in this section 1. Add revised language to address leak detection of cooling fluids, 2. Adds requirements for flammable and combustible liquids, 3. Adds a requirements for listing of equipment used for refrigeration and cooling and 4. Adds requirements for addressing material/Fluid compatibility
for ITE. Each of these items are needed as cooling technology is evolving as energy levels found in IT racks increases. These cooling technologies already exist, and are being used, so these requirements address issues that could arise.

ASHRAE 15 is being added to accommodate the need for mechanical refrigeration system safety which is a part of a change proposed in Chapter 11.

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Committee: ELT-AAA

Public Input No. 21-NFPA 75-2025 [Section No. 11.2]

11.2* ~~– Coolant Systems.~~

~~If a separate coolant system is required for operation of an ITE installation, the system shall be provided with an approved alarm to indicate loss of liquid~~

Liquid Cooling Systems for ITE Racks

11.2.1

This section applies to liquid cooling systems for ITE that is not immersed in the coolant.

11.2.2*

Heat transfer fluids used to cool individual racks, servers, and/or components shall be noncombustible.

11.2.3

Insulation used for heat transfer fluid piping or hoses shall be noncombustible per 6.2.1.

11.2.4

Dripless disconnects shall be provided for rack/server connections to the heat transfer fluid utility piping.

11.2.5

The heat transfer fluid piping systems shall be equipped with a leak detection system that signals alarms to a constantly attended location.

11.2.5.1*

Precautions shall be taken to minimize the negative effects of a heat transfer fluid leak .

Statement of Problem and Substantiation for Public Input

The current single sentence does not provide adequate guidance for liquid cooling systems that are becoming much more prevalent. Adding basic guidance that provides basic fire protection and loss control guidance without unnecessarily limiting installation options.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 23-NFPA 75-2025 [Section No. A.11.2]	

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Submittal Date: Mon Jul 14 15:18:06 EDT 2025
Committee: ELT-AAA

Public Input No. 103-NFPA 75-2026 [Section No. 11.3.5]

11.3.5

Emergency lighting shall be provided in the ITE area in accordance with NFPA 101 and the governing building code(s) .

Statement of Problem and Substantiation for Public Input

This change ensures that the governing building codes of a jurisdiction are also followed.

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Committee: ELT-AAA

Public Input No. 32-NFPA 75-2025 [Section No. 11.3.6]

11.3.6*

All electrical wiring and optical fiber cabling in the air space above a suspended ceiling shall conform to the requirements in NFPA 90A for installation in a ceiling cavity plenum and to the requirements in *NFPA 70* for installation in “other spaces used for environmental air” when that air space is used for the movement of air.

Statement of Problem and Substantiation for Public Input

"*" was added to correlate with the PI to add an annex note to this section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 31-NFPA 75-2025 [New Section after A.11.3.4]	Adds an annex to 11.3.6.
Public Input No. 31-NFPA 75-2025 [New Section after A.11.3.4]	

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Committee: ELT-AAA

Public Input No. 104-NFPA 75-2026 [Section No. 11.4.5.3]

~~**11.4.5.3** –~~

~~Activation of an HVAC disconnecting means shall cause all required fire/smoke dampers to close.~~

Statement of Problem and Substantiation for Public Input

This is covered elsewhere in 11.4.5.1.4 as well as other NFPA standards and as such, is not needed here.

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Committee: ELT-AAA

Public Input No. 38-NFPA 75-2025 [Section No. 11.5]

11.5 Uninterruptible Power Supplies (UPSs).

11.5.1 UPS Systems.

UPS systems installed within the information technology equipment [ITE] room ~~, and~~ on in separate spaces to support ITE, Including their supply and output circuits, shall comply with 11.4.5, except for the following installations and constructions:

(1) Installations complying with Parts I and II of Article 685 of NFPA 70

(2) Power sources limited to 750 volt-amperes or less derived either from UPS equipment or from battery circuits integral to electronic equipment

[**70:**645.11]

11.5.1.1

The disconnecting means shall also disconnect the ~~battery~~ UPS from its load. [**70:**645.11]

11.5.~~1.~~ 2

~~Storage battery systems in the ITE area~~

UPS systems installed to support ITE shall comply with the requirements of

~~Article 480 of *NFPA 70*~~

NFPA 855 .

~~**11.5.2.3** – Labels.~~

~~Battery cabinets shall be provided with exterior labels that identify the manufacturer and model number of the system and electrical rating (i.e., voltage and current) of the contained battery system~~

11.5.2 ~~Batteries~~ .

~~Batteries used in ITE UPS systems exceeding the quantities in 11.5.3.1 shall comply with this chapter.~~

~~**11.5.2.1** – Location and Occupancy Separation.~~

~~**11.5.2.1.1** –~~

~~Battery systems shall be permitted in the same room as the equipment that they support.~~

~~**11.5.2.1.2** –~~

~~Battery systems shall be housed in a noncombustible, locked cabinet or other enclosure to prevent access by unauthorized personnel unless located in an equipment room accessible only to authorized personnel.~~

~~**11.5.2.1.3** –~~

~~Battery systems shall be located in a room separated from other portions of the building by a minimum of a 1-hour fire barrier.~~

~~**11.5.2.1.4** –~~

~~Where the ITE is located in a structure or building housing multiple tenants or occupancies that include assembly, educational, detention, and correction facilities, health care, ambulatory care, and day care center, and residential board and care and residential occupancies, battery systems shall be located in a room separated from other portions of the building by a minimum of a 2-hour fire barrier.~~

11.5.2.2 – Environment.

The battery environment shall be controlled or analyzed to maintain temperature in a safe operating range for the specific battery technology used.

1 .

Storage battery UPS systems smaller than those covered by NFPA 855 shall comply with the requirements of Article 480 of NFPA 70 .

11.5.2. 4 – Signs.

Signs shall be provided within battery cabinets to indicate the relevant electrical, chemical, and fire hazard.

11.5. 2 .5 – Seismic Protection.

Battery systems shall be seismically braced in accordance with the building code.

11.5.2.6 – Smoke Detection.

An approved automatic smoke detection system shall be installed in rooms containing stationary battery storage systems in accordance with *NFPA 72* .

11.5.2.7 –

A failure modes and effects analysis shall be performed in accordance with NFPA 855 if the chemistry (i.e., type) of the batteries constituting a battery system is changed.

11.5.3 – Lead-Acid and Nickel-Cadmium Batteries.

11.5.3.1 – General.

UPS systems having an electrolyte capacity of more than 100 gal (378.5 L) in sprinklered buildings or 50 gal (189.3 L) in unsprinklered buildings for vented lead-acid, nickel-cadmium (NiCad), and valve-regulated lead-acid (VRLA) batteries shall be in accordance with 11.5.3 and Table 11.5.3.1 .

Table 11.5.3.1 Lead-Acid and Nickel-Cadmium Battery Requirements

- Nonrecombinant Batteries Recombinant Batteries Requirement Vented Lead-Acid Vented Nickel-Cadmium (NiCad) Valve-Regulated Lead-Acid (VRLA) Safety caps Venting caps Venting caps Self-resealing flame-arresting caps Thermal runaway management Not required Not required Required Spill control Required Required Not required Neutralization Required Required Not required Ventilation Required Required Required Signage Required Required Required Seismic control Required Required Required Fire detection Required Required Required

11.5.3.2 – Safety Features.

11.5.3.2.1 – Safety Venting.

Batteries shall be provided with safety venting caps per 11.5.3.2.1.1 and 11.5.3.2.1.2 .

11.5.3.2.1.1 – Nonrecombinant Batteries.

Vented lead-acid and nickel-cadmium shall be provided with safety venting caps.

11.5.3.2.1.2 – Recombinant Batteries.

VRLA shall be equipped with self-resealing flame-arresting safety vents.

11.5.3.2.2 – Thermal Runaway.

VRLA systems shall be provided with a listed device or other approved method to preclude, detect, and control thermal runaway.

11.5.3.2.3 – Spill Control.

11.5.3.2.3.1 –

Rooms containing free-flowing liquid electrolyte in multiple vessels having an aggregate capacity exceeding 1000 gal (3785 L) shall be provided with spill control to prevent the flow of liquids to adjoining areas.

11.5.3.2.3.2 * –

The approved spill control method shall be capable of controlling a spill from the single largest vessel.

11.5.3.2.3.3 –

VRLA batteries with immobilized electrolyte shall not require spill control.

11.5.3.2.4 – Neutralization.

11.5.3.2.4.1 * –

An approved method to neutralize spilled electrolyte shall be provided.

11.5.3.2.4.2 –

For vented lead-acid and nickel-cadmium batteries, the method shall be capable of neutralizing a spill from the largest battery to a pH between 7.0 and 9.0.

11.5.3.2.5 * – Ventilation.

For vented lead-acid, flooded nickel-cadmium, and VRLA batteries, ventilation shall be provided for rooms and cabinets in accordance with the mechanical code and one of the following:

(1) The ventilation system shall be designed to limit the maximum concentration of hydrogen to 1.0 percent of the total volume of the room during the worst-case event of simultaneous "boost" charging of all the batteries, in accordance with nationally recognized standards.

(2) Continuous ventilation shall be provided at a rate of not less than 1 ft^3 /min/ft^2 (5.1 L/sec/m^2) of floor area of the room or cabinet.

11.5.3.2.6 – Signs.

11.5.3.2.6.1 –

Doors or accesses into the following shall be provided with approved signs:

(1) Rooms containing stationary storage battery systems

(2) Other areas containing stationary storage battery systems

11.5.3.2.6.2 –

For rooms that contain VRLA batteries, the signs required by 11.5.3.2.6.1 shall state the following:

This room contains:

(1) Stationary storage battery systems

(2) Energized electrical circuits

11.5.3.2.6.3 –

For rooms that contain lead-acid or vented NiCad batteries, the signs required by 11.5.3.2.6.1 shall state the following:

This room contains:

(1) Stationary storage battery systems

(2) Energized electrical circuits

(3) Corrosive battery electrolyte

11.5.4 * – Other Battery Types.

Battery types other than those addressed in 11.5.3 shall comply with Chapter 52 of NFPA 1.

~~**11.5.4.1 *** – Lithium-Ion Batteries.~~

~~Where installed, off-gas detection systems that monitor for electrolyte vapor released prior to thermal runaway shall be listed or approved, and installed in accordance with the manufacturer's published instructions.~~

~~**11.5.4.2** –~~

~~When lithium-ion batteries in a UPS are replaced with new batteries, replacement batteries shall be in accordance with the listing of the UPS.~~

Back-up batteries integral to ITE installed in a rack shall comply with the requirements of 8.3.

11.5.3

ITE Rack-Mounted Battery Back-up Units (BBUs) - Reserved

Statement of Problem and Substantiation for Public Input

Simplifies by referring to other standards that cover most installations. Removes duplication.

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Committee: ELT-AAA

Public Input No. 105-NFPA 75-2026 [Section No. 11.5.1.2]

11.5.1.2

Storage battery systems in the ITE area shall comply with the requirements of Article 480 of *NFPA 70*.

11.5.1.3

UPS systems containing lithium-ion batteries exceeding 20 kWh shall comply with NFPA 855.

Statement of Problem and Substantiation for Public Input

ITE in data centers increasingly uses battery energy storage systems while calling them UPS. For safety reasons, these battery systems should comply with NFPA 855, Standard for the Installation of Stationary Energy Storage Systems.

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Public Input No. 69-NFPA 75-2026 [Section No. 11.5.3.1]

11.5.3.1 General.

UPS systems having an electrolyte capacity of more than 100 gal (378.5 L) in sprinklered buildings or 50 gal (189.3 L) in unsprinklered buildings for vented lead-acid, nickel-cadmium (NiCad), and valve-regulated lead-acid (VRLA) batteries shall be in accordance with 11.5.3 and Table 11.5.3.1.

Table 11.5.3.1 Lead-Acid and Nickel-Cadmium Battery Requirements

	-	Nonrecombinant Batteries		Recombinant Batteries
Requirement	Vented Lead-Acid	Vented Nickel-Cadmium (NiCad)	Valve-Regulated Lead-Acid (VRLA)	
Safety caps	Venting caps	Venting caps	Self-resealing flame-arresting caps	
~~Thermal runaway management~~ Charge control feedback	Not required	Not required	Required	
Spill control	Required	Required	Not required	
Neutralization	Required	Required	Not required	
Ventilation	Required	Required	Required	
Signage	Required	Required	Required	
Seismic control	Required	Required	Required	
Fire detection	Required	Required	Required	

Statement of Problem and Substantiation for Public Input

The term "Thermal Runaway" has been redefined in NFPA 855 to address the uncontrollable thermal reaction, venting or fire response typical of a failed lithium-ion type cell. VRLA batteries can undergo a form of destructive self-heating when charged without temperature compensation or other forms of intelligent feedback, but this is a controllable reaction, sometimes called "thermal walkaway". We should no longer use the term thermal runway when describing the control of VRLA batteries.

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Committee: ELT-AAA

Public Input No. 70-NFPA 75-2026 [Section No. 11.5.3.2.2]

11.5.3.2.2 ~~Thermal Runaway~~ Charge Control Feedback .

VRLA systems shall be provided with a listed device to ensure feedback enabled charge control or other approved method to preclude ~~, detect, and control thermal runaway~~ or prevent destructive self-heating .

Statement of Problem and Substantiation for Public Input

The term "Thermal Runaway" has been redefined in NFPA 855 to address the uncontrollable thermal reaction, venting or fire response typical of a failed lithium-ion type cell. VRLA batteries can undergo a form of destructive self-heating when charged without temperature compensation or other forms of intelligent feedback, but this is a controllable reaction, sometimes called "thermal walkaway". We should no longer use the term thermal runway when describing the control of VRLA batteries.

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Public Input No. 106-NFPA 75-2026 [Section No. 11.5.4.1]

11.5.4.1* Lithium-Ion Batteries.

Where installed, ~~off-~~ gas detection systems that monitor for ~~electrolyte~~ vapor ~~released prior~~ release prior to thermal runaway shall be listed or approved, and installed in accordance with the manufacturer's published instructions.

Statement of Problem and Substantiation for Public Input

This change clarifies the section by using the proper terminology, and changing the term "off-gas detection" to the defined term in the change in Chapter 3 and Chapter 9.

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Committee: ELT-AAA

Public Input No. 110-NFPA 75-2026 [Section No. 11.5.4.1]

11.5.4.1* Lithium-Ion Batteries.

Where installed, off-~~gas~~ gassing detection systems that monitor for electrolyte vapor released prior to thermal runaway shall be listed or approved, and installed in accordance with the manufacturer's published instructions.

Statement of Problem and Substantiation for Public Input

Revised text consistent with term "off-gassing" as used in NFPA 855.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 109-NFPA 75-2026 [Section No. 3.3.22]	same use of term

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Public Input No. 36-NFPA 75-2025 [New Section after 11.5.4.2]

FIRE PREVENTION

12.1 Housekeeping

12.1.1* Combustible materials that are not in active use shall be removed from ITE and ITE support areas unless their presence conforms with the requirements of Chapter 7.

A.12.1 Exposed combustible materials in ITE and support areas increase the combustible loading for the space, provide paths for fire spread between ITE equipment, and are generally easier to ignite that ITE equipment. Strict housekeeping practices minimize the potential for fire ignition and help to minimize potential damage while enhancing personnel safety.

12.2* Smoking

Smoking, carrying, or depositing any lighted of smoldering substance shall not be permitted in ITE and ITE support areas and all other areas identified by local management as a risk to ITE operations.

A.12.2 Smoking is defined as carrying or use of a lighted pipe, cigar, cigarette, tobacco, or any other type of smoking substance.

12.2.1* If a designated smoking area is to be allowed in other areas of the building, local management shall conduct a fire risk analysis prior to designating such areas.

A.12.2.1 The fire risk analysis should include consideration of the following criteria:

(1) Noncombustible ash trays

(2) Noncombustible waste receptacles

(3) Ignition-resistant furnishings

(4) Appropriate fire detection and/or suppression

(5) Minimum 1-hour separation to ITE areas

12.2.2 Signage

12.2.2.1 Signs that smoking is prohibited shall be posted at the entrance to any building where smoking is prohibited throughout.

12.2.2.2 Signs that state smoking is prohibited except in designated areas shall be posted at the entrance to any building in which designated smoking areas have been established per 12.2.2.1.

12.3* Hot Work

Hot work conducted within the facility shall comply with NFPA 51B, including issuance of a hot work permit prior to the start of any hot work.

A.12.3 Where soldering irons, heat guns, glue guns, and other similar heat-producing tools are used, they should be attended at all times when in use. Additionally, these tools should be de-energized and safely stored when not in use.

12.4* Flammable and Combustible Liquids, Gases, and Aerosols

A12.4 Flammable and combustible liquids, gases, and aerosols shall be minimized and used in ITE area only when alternate means are not practical. Their storage shall be limited to support areas located outside the ITE area and separated by at least 1-hour fire separation.

12.4.1 The storage, handling, and use of flammable and combustible liquids, including waste liquids, shall comply with the requirements of NFPA 30.

12.4.2 All flammable and combustible liquid, gas, and aerosol containers in the ITE building shall be stored in approved fire rated cabinets when not in use.

12.4.3 Storage of propane cylinders and containers outside the ITE building shall comply with NFPA 58.

12.4.4 Combustible gas and aerosol containers shall not be stored in ITE or ITE support areas except the standby engine area.

12.5* Electrical Equipment Maintenance

ITE electrical support equipment shall be maintained per NFPA 70B.

A12.5 A program of regular infrared thermographic scanning of critical equipment on an annual basis should be considered for all critical ITE support equipment.

Statement of Problem and Substantiation for Public Input

This added section covers general topics that are not addressed elsewhere in the standard. This chapter addresses prevention while the rest of the standard, except parts of Chapter 7, addresses protection. It may be practical to roll some or most of this into Chapter 7, but Chapter 7 would need to be completely rewritten to accomplish that.

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Committee: ELT-AAA

Public Input No. 107-NFPA 75-2026 [Section No. 11.5.4.2]

11.5.4.2

When lithium-ion batteries in ~~a UPS~~ ITE are replaced with new batteries, replacement batteries shall be in accordance with the listing of the ~~UPS~~ equipment .

Statement of Problem and Substantiation for Public Input

This change clarifies that any lithium-ion batteries that are replaced in any equipment should comply with the listing. This may be for equipment that isn't just a UPS.

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Submittal Date: Wed Jan 07 17:03:40 EST 2026
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Public Input No. 108-NFPA 75-2026 [Section No. 11.5.4.2]

11.5.4.2

When lithium-ion batteries in a UPS are replaced with new batteries, replacement batteries shall be in accordance with the listing of the UPS.

11.5.4.3 UPS systems exceeding 20 kWh

11.5.4.3.1. UPS systems with lithium-ion batteries exceeding 20 kWh shall be listed in accordance with UL 9540 and installed in accordance with the manufacturer's instructions.

11.5.4.3.2. Lithium-ion battery UPS exceeding 20 kWh shall be spaced at least 3 feet apart from other UPS, walls, and containing lithium-ion batteries, doors in the means of egress, and other ITE equipment. Spacings shall be permitted to be reduced below to 3 ft (0.9 m) based on fire and explosion testing complying with UL 9540A.

A.11.5.4.3.2. A UL 9540A test evaluates the fire characteristics of the composition of gases generated at cell level, module level, and unit and installation levels for an indoor installation of a UPS/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.

If approved, add to Chapter 2, UL 9540 Energy Storage Systems and Equipment, 2025.

If approved, add to Annex G, UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems 2025.

Statement of Problem and Substantiation for Public Input

Thermal runaway events in a UPS have the demonstrated ability to cause significant damage. This proposal ensures that these battery systems that exceed 20 kWh use listed equipment and are either spaced at least 3 feet apart, or have a UL 9540A test to guide spacing. The requirements listed here are consistent with the requirements of NFPA 855. It is important to have the requirements here even if NFPA 855 becomes referenced because NFPA 855 does not use the same terminology as is used in ITE areas.

Batteries and Battery Energy Storage systems are being increasingly used in these types of facilities. Pointing out that the energy storage systems need to be listed to 9540, and that testing of these systems is in accordance with UL 9540A makes NFPA 75 consistent with NFPA 855.

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Submittal Date: Wed Jan 07 17:05:24 EST 2026

Committee: ELT-AAA

Public Input No. 28-NFPA 75-2025 [New Section after A.3.3.4.4]

A 3.3.6

The definition of communications circuit in the 2026 NEC has the following Informational Note:

Because communications can be carried over conductors with power, meeting both this definition and the definition for another circuit defined by this code is possible (e.g., For example, a power line communications device can be used on a branch circuit). The addition of data to an existing circuit type defined by this code does not by itself change the requirements for the existing circuit type in this code.

Statement of Problem and Substantiation for Public Input

An informational note was added to the definition of communications circuit in the 2026 edition of the NEC. This PI recommends that the text of that informational note be an annex note in this standard.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 24-NFPA 75-2025 [Section No. 3.3.6]	

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Public Input No. 44-NFPA 75-2025 [Section No. A.3.3.10]

A.3.3.10 Energy Storage System (ESS).

Energy storage systems (ESSs) ~~differ from other storage systems [e.g.,~~ may be a component of an uninterruptible power supply (UPS) *(see 3.3.32)]*.

Statement of Problem and Substantiation for Public Input

Clarifies the difference between ESS and UPS

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Public Input No. 46-NFPA 75-2025 [Section No. A.3.4.2]

A.3.4.2 Aisle Containment.

The key elements of this definition are as follows:

(1) An ~~occupied~~ accessible area (excluding areas above a ceiling or below a raised floor)

(2) Utilizing physical separation between hot and cold air (excluding construction methods such as fire-rated walls)

(3) Can be either a hot aisle or a cold aisle or a mix of both at select portions of the aisle

Statement of Problem and Substantiation for Public Input

Revised for clarity.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 45-NFPA 75-2025 [Section No. 3.4]	

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Public Input No. 47-NFPA 75-2025 [Section No. A.3.4.4]

A.3.4.4 Hot ~~Air Collar~~ Aisle .

The key elements of this definition are as follows:

(1) ~~Air conveyance assembly, sometimes referred to as a duct or a chimney~~

(2) ~~Typically from specific equipment rather that from larger areas such as aisles~~
~~Hot air collar not required to be physically connected to a duct or plenum~~

(3) Airflow controlled

(4) Exhaust air hot, implying an aisle normally intended for servicing of the ITE

(5) Air returns to the input of the HVAC and/or exhaust

Statement of Problem and Substantiation for Public Input

Revised to support PI-45

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 45-NFPA 75-2025 [Section No. 3.4]	

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Public Input No. 48-NFPA 75-2025 [Section No. A.3.4.5]

A.3.4.5 Hot ~~Aisle~~ Air Collar .

The key elements of this definition are as follows:

(1) ~~Airflow controlled~~

(2) ~~Exhaust air hot, implying an aisle normally intended for servicing of the ITE~~
~~Air returns to the input of the HVAC~~

(3) An inaccessible air conveyance assembly, sometimes referred to as a duct or a chimney

(4) Typically from specific equipment rather than from larger areas such as aisles

(5) Hot air collar not required to be physically connected to a duct or plenum.

Statement of Problem and Substantiation for Public Input

Revised to support PI 45

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 45-NFPA 75-2025 [Section No. 3.4]	

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Public Input No. 82-NFPA 75-2026 [Sections A.6.2, A.6.2.1.1(1)]

~~**Sections A.6.2, A.6.2.1.1(1)**~~

~~**A.6.2**~~ —

~~The provisions of Section 6.2 do not require inherently noncombustible materials to be tested in order to be classified as noncombustible materials. [**5000:** A.7.1.4.1]~~

~~**A.6.2.1.1(1)**~~ —

~~Examples of such materials include steel, concrete, masonry, and glass. [**5000:** A.7.1.4.1.1(1)]~~

Statement of Problem and Substantiation for Public Input

NFPA 5000 SR 8115 deleted this unenforceable and vague information and replaced it by the materials known to be noncombustible.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 81-NFPA 75-2026 [Section No. 6.2.1]	
Public Input No. 81-NFPA 75-2026 [Section No. 6.2.1]	

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Public Input No. 8-NFPA 75-2024 [Section No. A.6.7]

A.6.7

The principles of Section 6.7 should be followed ~~if an existing ITE room has~~ for new construction and when aisle containment systems ~~added after construction of the room~~ are added to an existing ITE area .

Statement of Problem and Substantiation for Public Input

For clarification. Alternatively, with proposed rewrite exception, this can be deleted.

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Public Input No. 9-NFPA 75-2024 [Section No. A.6.7.6]

A.6.7.6

Temperatures of 38°C (100°F) are ~~possible~~ common in hot aisles. ~~Temporary increases in temperature above 38°C (100°F) in hot aisles can occur during normal facility operations.~~ Continuing advancements in ITE technology is expected to increase the maximum operating temperature of equipment in the future. Non-fire temperature excursions more than 10°C (18°F) are possible. Temperatures as high as 66°C (150°F) have been observed in hot aisles upon failure of the HVAC system.

Some smoke detectors are listed for maximum operating temperature of 38°C (100°F). Where smoke detectors are located in hot aisles or in the airstream exhausted from hot aisles, ~~detectors should have appropriate listing for temperatures above 38°C (100°F)~~ they should be listed for the temperatures they will experience .

Where heat detectors are located in hot aisles, consideration of the operating temperatures within the hot aisles should be made when selecting the temperature rating of the detectors. *NFPA 72* and manufacturer's instruction should be consulted for guidance.

During startup of ITE, the rate of temperature rise within hot aisles could cause rate-of-rise detectors to activate. Detection systems should be designed to avoid unwanted alarm during ITE startup.

The normally elevated temperatures within hot aisles should be taken into account when selecting sprinklers for installation in these aisles. NFPA 13 should be consulted for guidance.

~~Abnormal conditions can result in even higher temperatures than described above. For example, temperatures as high as 66°C (150°F) have been observed in hot aisles upon failure of the HVAC system.~~

Statement of Problem and Substantiation for Public Input

Temperatures in hot aisles are increasing and expected to increase further in the future. Revised wording accommodates those expected temperature increases.

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Public Input No. 76-NFPA 75-2026 [New Section after A.8.2.1]

Appendix Content for New Section 8.2.2.5 and 8.2.2.6

A.8.2.2.5 Direct to Chip Cooling systems are liquid cooling systems which use cold plates on top of CPUs or GPUs to absorb heat from the processor. These systems help manage extreme heat loads from high performance computers and AI servers as well as make operating them more energy efficient. These systems typically include a coolant distribution unit and outdoor cooling unit which rejects heat from the server cooling loop to the outdoors. The cooling fluids used in these systems are typically water-glycol mixtures and are used at rack densities between 50-100 kW per rack. There are pipes which distribute the cooling fluid throughout the ITE Room, to headers at each rack, and connections to each server. These systems can have the piping to the server racks distributed in the raised floor, but more commonly they are routed overhead above the servers. Leaks from these system should be a consideration in their implementation.

The glycol/water mixtures are usually used at concentrations no higher than 25% glycol which is not flammable.

Water spray onto lithium-ion battery cells has been found to be the cause of fires. When a ITE room is employing liquid cooling systems using water and in-rack UPS sytems protecting the batteries from being sprayed with water should be a consideration to avoid an ignition sourse. Operators of data centers will be regularly connecting and disconnecting the tubing to the liquid cooling system increasing the risk of uncontrolled water sprays.

A.8.2.2.6 Cold Plate Cooling systems are similar to direct to chip liquid cooling systems, but they differ in the general ability to handle higher heat rejection loads. Cold plate systems are typically being used for rack densities between 100-300 kW per rack. The systems use a two-phase cooling circuit (liquid and gas) and refrigerants to chill a cold plate adhered to the processor in the server. The servers must be purchased with the cold plate and connection tubes already applied. The typical refrigerants used in cold plate cooling systems are R134a or R515b and sometimes other proprietary heat transfer fluids. None of these refrigerants/fluids currently in use are flammable. Some of the refrigerants are gaseous and heavier than air and ventilation for dilution should be a safety consideration of the ITE room using the cooling system.

Statement of Problem and Substantiation for Public Input

Adding some context for the user on what these liquid cooling systems are.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 64-NFPA 75-2026 [New Section after 8.2.2.4]	

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Public Input No. 35-NFPA 75-2025 [Sections A.9.1.1.3, A.9.1.2, A.9.1.4, A.9.2, A.9.2.1, A.9.2...]

Sections
A.9.1.1.3, A.9.1.2, A.9.1.4, A.9.2, A.9.2.1, A.9.2.2, A.9.2.2(3), A.9.2.3, A.9.3.2, A.9.4.1, A.9.4.3, A.9

A.9.1.1.3

The use of carbon dioxide systems for the protection of spaces beneath raised floors is discussed in Section B.5 of NFPA 12 wherein it is pointed out that the design of such systems requires compensation for leakage and provision for a soft discharge to minimize turbulence and agent loss through perforated tiles. These same concerns exist for other inert gas clean agent systems installed in accordance with NFPA 2001. Since these spaces are usually of a very limited height, this type of fire suppression system might be easier to design and install than sprinklers.

The use of halocarbon agents for protection of the spaces under a raised floor where the room is not simultaneously protected is not recommended. However, where a room is protected by a halocarbon system, the space beneath its raised floor needs to be included in the system coverage.

A.9.~~1~~ 2 .2

In facilities that are under the supervision of an operator or other person familiar with the equipment, during all periods that equipment is energized, the normal delay between the initial outbreak of a fire and the operation of a sprinkler system will provide adequate time for operators to shut down the power by use of the electrical disconnecting means as prescribed in Section 11.4. In other instances where a fire can operate sprinkler heads before discovery by personnel, a method of automatic detection should be provided to automatically de-energize the electronic equipment as quickly as possible.

To minimize damage to electronic computer equipment located in sprinkler-protected areas, it is important that power be off prior to the application of water on the fire.

A.9.

~~1.4~~

2.4

A sprinkler system leak over critical ITE during a preaction valve trip test that floods the entire system can result in millions of dollars of damage to ITE. Consequently, such testing should be conducted in a manner that confines water to the sprinkler riser room located outside of the ITE area. A full trip test of preaction systems is required every three years per NFPA 25; 13.4.3.2.3. This requirement can be met with the additional valve above the preaction valve fully closed while the control valve below the preation valve is fully open. A test connection or drain needs to be provided between the preaction valve and the valve above the preaction valve to facilitate testing in this manner.

A.9.2.6

It is not intended that small automatic media loaders or AISS units be provided with protection within the unit. The decision of whether to install protection within the unit should be based on the combustible load being added to the room or area. In the absence of further information, it is reasonable to assume that units that handle in the range of 0.76 m^3 (27 ft^3) of combustible storage space or less need not be provided with protection within the unit. The 0.76 m^3 (27 ft^3) volume assumes that no single dimension is larger than 0.9 m (3 ft) [for example, 0.9 m × 0.9 m × 0.9 m (3 ft × 3 ft × 3 ft)].

A.9.2 ~~—~~ 3

Fire detection and extinguishing systems should be selected after a complete evaluation of the exposures. The amount of protection provided should be related to the building construction and contents, equipment construction, business interruption, exposure, and security need. For amplification of the important need of fire protection, see Chapter 4.

A.9.2 3 .1

High-sensitivity smoke detection systems can provide earlier indication of a potential fire within an ITE area. Smoke detectors listed to UL 268, *Smoke Detectors for Fire Alarm Systems*, are optimized for general commercial applications and are designed to comply with the new cooking nuisance smoke test (normal application smoke detection). Smoke detectors designated for special applications listed to UL 268 are designed to be used in applications that require higher sensitivity and that are less likely to be exposed to cooking nuisances. Although *NFPA 72* permits aspirated smoke detector transport time of up to 120 seconds, keeping the transport time below 90 seconds for earlier warning in ITE areas should be considered.

Placing smoke detectors or air sampling ports in the path of airflow within the ITE area, including within electrical cabinets, should also be considered. Detectors outside of the return air envelope are likely to have a delayed response since the fire will have to grow to such a size that it can overcome the forces of the mechanically generated airflow.

A.9.~~2~~ 3 .2

The outline that follows provides smoke detector sensitivity and spacing guidance for protection of ITE in high airflow areas.

General. For smoke detection systems to detect products of combustion, the products must travel from the source to a spot-type smoke detector or port and arrive there in sufficient density to be detectable.

Products of combustion follow forced air streams early in the development of a fire or overheat condition where the influence of mechanical systems is greater than the buoyant forces of the fire or overheat condition. Detection system spot-type smoke detectors or ports installed in the paths of cooling air exhaust from the cooled equipment can be expected to respond to a small fire in the equipment sooner than spot-type smoke detectors or ports located outside of the ventilation air envelope. To be effective, the detection equipment installed within the ventilation air envelope should be suitable to meet the required sensitivity objectives and for the temperatures, air velocities, and other conditions present. If suitable detection equipment cannot be installed within the exhaust ventilation air envelope, a fire in the cooled equipment should be expected to grow to a size with sufficient energy to overcome the mechanical forces of the HVAC containment system.

In the presence of aisle containment systems used to enhance the effectiveness of cooling ITE, spot-type smoke detectors or ports located in hot aisles or in the above ceiling plenum are required.

Regardless, spot-type smoke detectors or ports located on the ceiling in ITE areas are a basic requirement and contribute to effective detection over a broad range of ITE area configurations.

Listed ITE has inherent fire-resistant characteristics. Failing or overheated components or connections can lead to smoldering events that produce smoke but tend to remain small. In exceptional cases, flaming fires can result.

Automatic fire and smoke detection systems installed to detect smoldering events and/or flaming fires in ITE areas are more effective in detecting flaming fires than smoldering events due to the respective release rates of combustion products and the effects of forced air flow on the products of combustion. The greater the air flow, which dilutes and channels detectable products of combustion, the less effective will be the performance of the detection system. Damage or losses that could result from smoldering events or flaming fires in ITE prior to detection are likely to be greater in the presence of greater forced air flow due to the likely decrease in detection system performance.

Smoke Detection Systems for Early Detection. Where a smoke detection system is installed for the primary purpose of summoning responsible people to the presence of a small ITE fire or electrical event that produces smoke (known as *prealarm*), the system should be arranged with high sensitivity and close spacing to achieve response to low-density products of combustion suspended in air with reasonable stability and tolerance of the environment. See Annex F for performance test procedures for early fire detection systems.

Smoke Detection Systems to Initiate Operation of HVAC Dampers or to Close Openings in Fire-Rated Walls. Where a smoke detection system is installed for the primary purpose of initiating operation of dampers, shutters, doors, or other closures in the event of a fire in an ITE area, the system should be arranged with medium sensitivity and spacing less than listed spacing to assure the integrity of fire-resistive barriers.

Smoke Detection Systems to Initiate Release of a Fire Suppression Agent. Where a smoke detection system is installed for the primary purpose of initiating the release of a fire suppression agent into an ITE area, the system should be arranged with low sensitivity and spacing less than listed spacing and should include a form of logical confirmation of the presence of products of combustion to assure that a single indication does not release the agent.

Sensitivity and Spacing Ranges. The following is guidance for sensitivity and spacing ranges for different locations in high airflow areas:

(1) Spot-type smoke detector and port spacing on ceilings in the presence of high air movement should follow the requirements of 17.7.6.3 of *NFPA 72*.

(2) Where air changes per hour (ACH) in the room served by the ventilation system exceeds 60, and where the supply air is delivered to the room through a raised floor, studies show

that spot-type smoke detectors or ports under the floor might not be effective in detecting a fire originating under the floor without abnormally close spacing. Experience has shown that spot-type smoke detectors or ports under the floor can be effective in detecting a fire originating in an air-handling unit supplying air to the underfloor space, even in high airflow areas.

(3) In applying the spot-type smoke detector or port spacing, it is recommended that spot-type smoke detectors and ports be located at strategic points where smoke is likely to pass — for example, in hot air return streams and at return air registers.

(4) For spot-type smoke detectors and ports installed in the exhaust/return air stream in hot aisles or above ceiling plenums, the spacing and sensitivities listed in Table A.9.2.2 should be used. The guidance in Table A.9.2.2 comes partly from a study sponsored by the Fire Protection Research Foundation. That guidance is conservative because it is based on testing using airflow without recirculation into the volume being studied.

Table A.9.2.2 Recommended Sensitivity and Spacing of Spot-Type Smoke Detectors or Ports in Exhaust/Return Air Streams in ITE Areas with High Airflow

	-	Low ACH — Up to 30		High ACH — Greater Than 30
Intended Function	Sensitivity	Spacing	Sensitivity	Spacing
Early detection	≤0.2%/ft	≤200 ft^2	≤0.1%/ft	≤100 ft^2
Operating dampers, doors, and shutters	≤1.5%/ft	≤400 ft^2	≤0.75%/ft	≤200 ft^2
Suppression agent release	>2.5% ≤4%/ft	≤400 ft^2	>1.5% ≤3%/ft	≤200 ft^2

Notes:

(1) See Fire Protection Research Foundation reports "Validation of Modeling Tools for Detection Design in High Air Flow Environments," and "Validation of Modeling Tools for Detection Design in High Air Flow Environments — Phase II," and FM Global report "Experimental Data for Model Validation of Smoke Transport in Data Centers."

(2) It is essential that the user understand the material in A.9.2.2 prior to the application of the recommended sensitivity and spacing in this table.

(3) The sensitivity levels for early detection should be considered to be pre-alarm levels.

(4) The sensitivity levels in the table should be considered to be above the ambient obscuration level. The listed sensitivity level should be added to the recorded average peak level in the ambient environment.

A.9.2 3 .2(3)

Products of combustion follow forced air streams early in the development of a fire or overheat condition when the influence of mechanical systems is greater than the buoyant forces of the fire or overheat condition. Detection system spot-type smoke detectors or ports installed in the paths of cooling air exhaust from the cooled equipment can be expected to respond to a small fire in the equipment sooner than spot-type smoke detectors or ports located outside of the cooling air exhaust stream. Where hot aisle containment systems are used, spot-type smoke detectors or ports should be installed at the hot aisle exhaust/return air opening for aisle identification. To be effective, the detection equipment installed within the cooling air exhaust stream should be suitable to meet the required sensitivity objectives and for the temperatures, air velocities, and other conditions present. If suitable detection equipment cannot be installed within the cooling air exhaust stream, a fire in the cooled equipment should be expected to grow to a size with sufficient energy to overcome the mechanical forces of the HVAC containment system.

A.9.~~2~~3.3

Sampling ports or spot-type detectors should be located where smoke is more likely to migrate. For example, in an unventilated (i.e., nearly sealed) cabinet, detection should be within the top 10 percent of the cabinet, whereas in a ventilated cabinet, detection should be provided where the ventilation exits the cabinet. In a naturally vented cabinet, this will be the upper ventilation vent.

A.9.~~3~~4.2

For more information, see NFPA 10.

A.9.~~4~~5.1

If major concerns over potential fire loss of specific critical data or equipment or serious interruption to operations cannot be resolved or alleviated by equipment redundancy, subdivision of the ITE area, or use of leased facilities, automatic gaseous agent total flooding might be the only feasible approach to handling an incipient fire situation with an acceptable minimum amount of damage. At the same time, this sophisticated protection approach requires that all environmental design criteria — for example, damper closure, fan shutdown, and sealed openings — be carefully maintained to ensure that the needed concentration for extinguishment will be achieved.

A.9.~~4~~5.3

Various methods of isolating the aisles between rows of equipment racks, known as hot aisle or cold aisle containment, are employed to prevent mixing of hot exhaust air or cold intake air through the ITE. In the event that a fire triggers the release of a clean agent gaseous suppression system, the gas suppressant should be able to penetrate all of the ITE In most cases of whole room total flooding systems, the flow of air through the ITE normally would be sufficient to satisfy this requirement, but the method should be evaluated on a case-by-case basis.

A.9.~~4~~5.~~4~~—6

The gaseous extinguishing system can be actuated by the automatic fire detection system required in Section 9.2 when designed to do so.

A.9.~~4~~5.~~5~~7

This provision requires that all environmental design criteria — for example, damper closure, fan shutdown, and sealed openings — be carefully maintained to ensure that needed concentration for extinguishment will be achieved. It is preferable, but not essential, to de-energize ITE prior to discharge if ITE shutdown does not cause major service interruptions.

A.9.~~4~~5.6

Predischarge and discharge alarms are provided to facilitate evacuation of all occupants if considered necessary.

A.9.~~6~~—7

Some ITE facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911 as well as processing alarms and other signals. ITE might not have been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. ITE rooms are not publicly accessible and the number of incidents requiring responder access is low compared to many other occupancies. Because these facilities are unique occupancies with such an important function, close cooperation between the facility operator and the emergency response organization(s) should be encouraged to assure responder activities are not unduly impaired and the ITE remains functioning. In-building emergency responder communications enhancement systems deployed in common areas, stairwells, lobbies, and other nonequipment room locations within ITE buildings are less of a concern.

Statement of Problem and Substantiation for Public Input

Justification for change that clarifies that flooding preaction systems is not needed to meet 3 year testing requirements and to align other sections with PI 20 submittal.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 20-NFPA 75-2025 [Chapter 9]	

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Committee: ELT-AAA

Public Input No. 41-NFPA 75-2025 [Section No. A.9.1.2]

A.9.1.2

In facilities that are under the supervision of an operator or other person familiar with the equipment, during all periods that equipment is energized, the normal delay between the initial outbreak of a fire and the operation of a sprinkler system will provide adequate time for operators to shut down the power by use of the electrical disconnecting means as prescribed in Section 11.4. In other instances where a fire can operate ~~sprinkler heads before~~ sprinklers before discovery by personnel, a method of automatic detection should be provided to automatically de-energize the electronic equipment as quickly as possible.

To minimize damage to electronic computer equipment located in sprinkler-protected areas, it is important that power be off prior to the application of water on the fire.

Statement of Problem and Substantiation for Public Input

Editorial: NFPA 13 uses the terminal sprinklers not sprinkler heads.

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Public Input No. 83-NFPA 75-2026 [New Section after A.9.4.3]

Context for new requirement

A.9.4.2 Data centers being built to house high performance computing processes and Artificial Intellignence applications often have rack densities in excess of 30 kW per rack and they employ liquid cooling strategies to deal with the heat loads. Two things change the environment when this occurs. First, the physical density of utilities serving the racks (cooling pipes, power distribution, and data connections) all begin to be crammed into the data center space increasing the challenge for water spray distribution from the sprinkler system. Second, the capital cost of the data center rises significantly multiple millions of U.S. dollars in equipment per rack. Clean agents systems address both problems -- the difficulty of addressing where the fire is occurring because of the utility obstructions and minimizing the damage from a fire to maximize a return to service.

Statement of Problem and Substantiation for Public Input

Additional context in Annex for new requirement in 9.4 Gaseous Suppression

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 67-NFPA 75-2026 [New Section after 9.4.1]	

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Committee: ELT-AAA

Public Input No. 112-NFPA 75-2026 [Section No. A.9.6]

A.9.6

Some ITE facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911 as well as processing alarms and other signals. ITE might not have been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. ITE rooms are not publicly accessible and the number of incidents requiring responder access is low compared to many other occupancies. Because these facilities are unique occupancies with such an important function, close cooperation between the facility operator and the emergency response organization(s) should be encouraged to ~~assure~~ ensure responder activities are not unduly impaired and the ITE remains functioning. In-building emergency responder communications enhancement systems deployed in common areas, stairwells, lobbies, and other nonequipment room locations within ITE buildings are less of a concern.

Statement of Problem and Substantiation for Public Input

Assure is to soothe. Ensure is to make certain and is a better word for this section.

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Public Input No. 23-NFPA 75-2025 [Section No. A.11.2]

A.11.2

For more information on liquid immersion cooling ~~liquids~~ systems , refer to 8.2.2. For classification of compressed gas or flammable refrigerants, refer to NFPA 55.

A.11.2.2

Use of a combustible heat transfer fluid will greatly increase combustible loading in the ITE space with the need to increase sprinkler and fire detection design parameters and revise exiting and personnel safety provisions. Glycol/water mixtures commonly used for ITE cooling purposes should be have a glycol concentration less than 50% to ensure the fluid does not transition into a combustible range with long term use.

A.11.2.5.1

Non-conductive heat transfer fluids can become conductive over time as they gather contaminants from operation and maintenance activity. A failure that results in a heat transfer fluid leak can also introduce contaminants that increase conductivity. Therefore, electrical failures, including short circuits and arcing, that can ignite a fire or generate personnel safety hazards are possible following a cooling system leak. A hazard analysis per Chapter 4 should be conducted for such conditions and appropriate safety precautions implemented to minimize the potential risk.

Statement of Problem and Substantiation for Public Input

Expanded material to support expanded chapter per PI 21

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 21-NFPA 75-2025 [Section No. 11.2]	

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Committee: ELT-AAA

Public Input No. 22-NFPA 75-2025 [Section No. A.11.3.1]

A.11.3.1

For the installation of electrical equipment and wiring and optical fiber cabling to conform to *NFPA 70*, the applicable articles in the *NEC* need to be identified. The first step in applying the *NEC* is to review the definition of ~~*modular data center* in 646.2.~~ Data Center, Modular (MDC) in Article 100,, Definitions. If the data center is determined to be modular, then the installation is required to conform to Article 646. Modular Data Centers and all other sections of the *NEC* that are referenced therein.

If the data center is not modular, the next step is to determine if Article 645 applies. Since Article 645 covers Information Technology Equipment (ITE) in an ~~ITE room~~ Information Technology Equipment room , the definitions of *ITE* and *ITE room* in ~~645.2 should~~ Article 100 should be reviewed. If the installation comprises ITE in an ITE room, Article 645 could be applicable to the installation.

Article 645 is permissive. Section 645.~~4 states: "This article shall be permitted to provide alternate wiring methods to the provisions of Chapter 3 and Article 708 for power wiring, Parts I and III of Article 725 for~~ 5, Special Requirements for Information Technology Equiment Room, states: "The alternate wiring methods for signaling wiring, and ~~Parts I and V of Article 770~~ for optical fiber cabling shall be permitted where all of the following conditions are met."

There are six conditions. See 645.~~4 of~~ 5 of the *NEC* to review the conditions.

If an installation does not meet the six conditions, then Article 645 is not permitted to be used, the provisions of Chapter 3 must be followed for power wiring, and the provisions of ~~Article 725 and Article 770 must~~ Articles 720, 722 and 725 must be followed for data wiring and optical fiber cabling. Even if a data center meets the six conditions, it is permissible to opt out of Article 645 and follow all the rules in Chapter 3 ~~, Article 725, and Article 770~~ and Chapter 7 .

Regardless of whether Article 645 is used, installations of power wiring must comply with Chapters 1, 2, and 4 of the *NEC*, and installations of communications wiring must comply with Chapter 7 and Chapter 8 of the *NEC*.

See 250.146(D) and 406.3(E) [of *NFPA 70*] for information on isolated grounding-type receptacles. [**70:**645.15 Informational Note]

Statement of Problem and Substantiation for Public Input

The 2026 edition of the NEC has been extensively reorganized; many of the referenced sections in the NEC have been moved.

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Public Input No. 31-NFPA 75-2025 [New Section after A.11.3.4]

A 11.3.6

The NFPA Standards Council, in decision 80-60, assigned primary jurisdiction for the subject of combustibles in plenums to the Committee on Air Conditioning, which is responsible for NFPA 90A. Section 11.3.6, by requiring that installations of all electrical wiring and optical fiber cabling in the air apace about a suspended ceiling conform to the requirements of NFPA 90A, assures compliance with the Standards Council directive.

Statement of Problem and Substantiation for Public Input

The proposed text explains that the NFPA 75 installation requirements for plenum cables are in accordance with Standards Council Directive 80-60.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 32-NFPA 75-2025 [Section No. 11.3.6]	Adds an "*" to 11.3.6.
Public Input No. 32-NFPA 75-2025 [Section No. 11.3.6]	

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Public Input No. 33-NFPA 75-2025 [Section No. A.11.3.7]

A.11.3.7

The NFPA Standards Council, in decision 80-60, assigned primary jurisdiction for the subject of combustibles in plenums to the Committee on Air Conditioning, which is responsible for NFPA 90A.

The Standards Council revisited the issue of responsibility for requirements for combustibles in plenums; Standards Council Directive 89-50 assigns the responsibility for requirements for combustibles in raised floor areas of computer rooms to Committee on Electronic Computer Systems.

The installation of general-purpose and riser cables exposed to the airflow in the air space below a raised floor is permitted only where the space is protected by an automatic fire suppression system. *(See 9.1.1.3.)*

Statement of Problem and Substantiation for Public Input

The added text references the Standards Council directive (89-50) that permits non-plenum cables to be use under a raised floor.

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Public Input No. 14-NFPA 75-2025 [Chapter B]

~~**Annex B** – What to Do in the First 24 Hours for Damaged Electronic Equipment and Magnetic Media~~

~~*This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.*~~

~~**B.1** –~~

~~The following material is extracted from the BMS CAT publication "Electronics & Magnetic Media Recovery."~~

~~**B.2** –~~

~~This plan attempts to detail the necessary recovery steps to be taken after a disaster has occurred to electronic equipment. The plan considers fire, heat, smoke, and water damage and is designed to limit and mitigate potential losses. The equipment under discussion includes office computers, word processors, telephone switching equipment, test equipment, audio-video equipment, and other electrical and electronic apparatus.~~

~~**WARNING:** It is most important that power be disconnected from all wet and smoke contaminated electronic equipment immediately. Not only is there a continuing danger from electrical shorts to the equipment, but voltage potential within the circuitry tends to plate contaminants onto printed circuit boards and backplanes.~~

~~**B.3** – Smoke Damage.~~

~~Primary damage to electronic equipment is caused by smoke that contains corrosive chloride and sulfur combustion by-products. Smoke exposure during the fire for a relatively short period of time does little immediate damage. However, the particulate residue left after the smoke has dissipated contains the active by-product that will corrode metal contact surfaces in the presence of moisture and oxygen.~~

~~The ultimate objective in restoration is the removal of the contaminant. Since all of the equipment cannot be cleaned simultaneously, it is most important that immediate steps be taken to arrest the corrosion process.~~

(1) ~~Move the exposed equipment into an air-conditioned and humidity controlled environment as soon as possible (40–50 percent relative humidity will generally prevent an acceleration of corrosive activity).~~

(2) ~~If moving the equipment is not possible, make sure the equipment area is sealed off from outside elements. (Caution: do not wrap the individual pieces of equipment in any material that tends to trap moisture inside the chassis.)~~

(3) ~~Spray connectors, backplanes and printed circuit board surfaces with Freon or Freon-alcohol solvents for preliminary cleanup.~~

(4) ~~Follow up with any corrosion inhibiting aerosol spray to stabilize metal contact surfaces. This will leave a thin but easily removable coating helping to prevent oxygen and moisture from activating the corrosion process.~~

~~Once the corrosion process is stabilized, an analysis can be made of the contaminants, and appropriate decontamination processes can be applied.~~

~~**B.4** – Water Damage.~~

~~It is a popular misconception that electronic equipment exposed to water and moisture is permanently damaged. Water that is sprayed, splashed, or dripped onto electronic equipment can be easily removed. Even equipment that has been totally submerged can be restored. However, in every case of water damage, immediate countermeasures are imperative. It is most important to turn off all electrical power to the equipment; i.e., DO NOT ENERGIZE ANY WET EQUIPMENT.~~

(1) ~~Open cabinet doors, remove side panels and covers, and pull out chassis drawers to allow water to run out of equipment.~~

(2) ~~Set up fans to move room temperature air through the equipment for general drying. Move portable equipment to dry air conditioned areas.~~

(3) ~~Use compressed air at no higher than 50 psi to blow out trapped water.~~

(4) ~~Use hand-held dryers on lowest setting to dry connectors, backplane wirewraps, and printed circuit cards. (Caution: Keep the dryer well away from components and wires. Overheating of electronic parts can cause permanent damage.)~~

(5) ~~Use cotton-tipped swabs for hard-to-reach places. Lightly dab the surfaces to remove residual moisture. Do not use cotton tipped swabs on wirewrap terminals.~~

(6) ~~Water displacement aerosol sprays containing Freon-alcohol mixtures are effective in first step drying of critical components.~~

(7) ~~Follow up with professional restoration as soon as possible.~~

~~**B.5** – Tape/Disk Drive.~~

~~The most important asset to be preserved following the loss is the corporate media (i.e., company database).~~

~~Severe damage to disk read/write heads and tape transport mechanisms is probable if an attempt is made to operate with media that is not clean. A "head-crash" caused by particulate on the surface of a disk will not only damage the drive but result in a loss of data. Dirty tapes will stick and break, causing loss of data. Emergency one-time cleaning of contaminated tapes and disks for data recovery is possible. The damaged media is then discarded after data recovery.~~

~~First step emergency procedures are as follows:~~

(1) ~~Place all contaminated magnetic media in air-conditioned area to remove water and stabilize media surfaces.~~

(2) ~~Remove media from wet and contaminated containers where possible. Identify all media as to type, application, and location.~~

(3) ~~Wipe exterior surfaces with alcohol-based cleaning solutions to remove contamination.~~

(4) ~~Data recovery from contaminated floppy disks, tapes, hard disks, and all associated drive and read/record equipment.~~

Statement of Problem and Substantiation for Public Input

The material in Annex B is not germane to an NFPA standard intended to prevent damage from fire. In addition, BMS CAT publication "Electronics & Magnetic Media Recovery" no longer exists.

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Public Input No. 85-NFPA 75-2026 [New Section after D.7]

Two New Sections

D.7 Halocarbon Agents and System Availability.

The United States passed the US American Innovation and Manufacturing (AIM) Act, enacted December 27, 2020, which is a climate protection law allowing tue US EPA to phase down the use of Hydrofluorocarbons (HFCs) by 85% by 2036. This affects the availablitiy of clean agent gasses HFC-227ea, HFC-125, and HFC-236. While these gasses are not banned from production the use of the credit systems created by the EPA has greatly changed the pricing of these gasses for fire protection. In the case of HFC-227ea only reclaimed agent is available while brand-new HFC-125 remains available. The agent recycling industry is buying back decommissioned HFC agents and building a supply to service existing systems for the forseeable future.

D.8 Fluoro-Ketone Agent and System Availability.

3M Company was the original inventor of 3M NOVEC 1230 clean agent firefighting fluid -- generically known as FK-5-1-12 -- and introducted it for use in 2004. 3M's patent for the product ran out in 2020 prompting chemical plants outside the U.S. to begin manufacturing FK-5-1-12 and offering it for fire protection use. In 2022 3M announced they would be exiting the production of any chemicals containing PFAS, including their NOVEC line of products. Today 3M's product is no longer available for purchase, but FK-5-1-12 is. Existing clean agent systems based on 3M NOVEC 1230 can be safely refilled with FK-5-1-12 and remain in place. New systems are based around FK-5-1-12.

Statement of Problem and Substantiation for Public Input

Additional information on the changes in the clean agent market which have occurred since 2020.

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Public Input No. 37-NFPA 75-2025 [Section No. D.7]

D.7 Compatibility to Facility Operation.

Gaseous systems work best where the power can be turned off to eliminate all electrical faults that could serve as a continuing ignition source. If a facility is arranged so that power cannot be shut off, then Class C design concentrations from NFPA 2001 should be used and the concentration should be held long enough to allow operator intervention to isolate and eliminate the continuing ignition source while the agent is still effective . Whether electric power is shut off or remains energized, emergency response plans for fires/discharge of agent in ITE areas protected by gaseous systems should include protocols for identifying and isolating the problematic equipment.

Similarly, if a protected space does not have a dedicated air-conditioning system and ventilation of the protected space cannot be shut down, then these conditions should be considered in the system design.

Statement of Problem and Substantiation for Public Input

Sensitive fire detection systems in ITE areas will often trigger gaseous extinguishing systems before there are obvious signs of fire from smoke or soot. Waiting times for agent to dissipate before entering the space after the agent has discharged reduce the contrasts between affected and unaffected equipment making it even harder to identify.

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Public Input No. 51-NFPA 75-2025 [Section No. G.1.1]

G.1.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 10, *Standard for Portable Fire Extinguishers*, 2022 edition.

NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems*, 2022 edition.

NFPA 12A, *Standard on Halon 1301 Fire Extinguishing Systems*, 2022 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2022 edition.

NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, 2023 edition.

NFPA 68, *Standard on Explosion Protection by Deflagration Venting*, 2023 edition.

NFPA 69, *Standard on Explosion Prevention Systems*, 2023 edition.

NFPA 70®, *National Electrical Code®*, 2023 edition.

NFPA 72®, *National Fire Alarm and Signaling Code®*, 2022 edition.

NFPA 80A, *Recommended Practice for Protection of Buildings from Exterior Fire Exposures*, 2022 edition.

NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*, 2024 edition.

NFPA 220, *Standard on Types of Building Construction,* 2024 edition.

NFPA 259, *Standard Test Method for Potential Heat of Building Materials,* 2023 edition.

NFPA 551, *Guide for the Evaluation of Fire Risk Assessments*, 2022 edition.

NFPA 730, *Guide for Premises Security*, 2023 edition.

NFPA 731, *Standard for the Installation of Premises Security Systems*, 2023 edition.

NFPA 780, *Standard for the Installation of Lightning Protection Systems*, 2023 edition.

NFPA 855, *Standard for the Installation of Energy Storage Systems,* 2026 edition.

NFPA 1660, *Standard for Emergency, Continuity, and Crisis Management: Preparedness, Response, and Recovery*, 2024 edition.

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*, 2022 edition.

Fire Protection Research Foundation (FPRF), “Validation of Modeling Tools for Detection Design in High Air Flow Environments,” 2012.

Fire Protection Research Foundation (FPRF), “Validation of Modeling Tools for Detection Design in High Air Flow Environments — Phase II,” 2014.

Statement of Problem and Substantiation for Public Input

Added NFPA 855

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Public Input No. 78-NFPA 75-2026 [Section No. G.1.2.1]

G.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials,*~~2023~~ 2025 .

Statement of Problem and Substantiation for Public Input

date update

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Public Input No. 54-NFPA 75-2026 [Section No. G.1.2.9]

G.1.2.9 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 268, *Smoke Detectors for Fire Alarm Systems*, ~~2021~~ 2023, revised 2025 .

UL 723, *Test for Surface Burning Characteristics of Building Materials*, ~~2018~~ 2025 .

UL 60950-1, *Information Technology Equipment — Safety — Part 1: General Requirements*, 2019.

UL 62368-1, *Audio/Video, Information and Communication Technology Equipment — Part 1: Safety Requirements*, ~~2021~~ 2025 .

UL 2755, *Outline of Investigation for Modular Data Centers*, 2018.

UL 2436, *Outline of Investigation for Spill Containment for Stationary Acid and Alkaline Battery Systems*, 2020.

Statement of Problem and Substantiation for Public Input

Update to most recent edition and revision.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 53-NFPA 75-2026 [Section No. 2.3.2]	

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