



National Fire Protection Association

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MEMORANDUM

TO: NFPA Technical Committee on Electronic Computer Systems
FROM: Joanne Goyette
DATE: April 25, 2011
SUBJECT: NFPA 75 ROC TC Letter Ballot (F2011)

The ROC letter ballot for NFPA 75 is attached. The ballot is for formally voting on whether or not you concur with the committee's actions on the comments. Reasons must accompany all negative and abstention ballots.

Please do not vote negatively because of editorial errors. However, please bring such errors to my attention for action.

Please complete and return your ballot as soon as possible but no later than **Monday, May 9, 2011**. As noted on the ballot form, please return the ballot to Joanne Goyette either via e-mail to jgoyette@nfpa.org or via fax to 617-984-7110. You may also mail your ballot to the attention of Joanne Goyette at NFPA, 1 Batterymarch Park, Quincy, MA 02169.

The return of ballots is required by the Regulations Governing Committee Projects.

Attachments:

Comments
Letter Ballot

75-1 Log #14
(1.3)

Final Action: Accept in Principle

Submitter: Mark L. Robin, DuPont

Comment on Proposal No: 75-2

Recommendation: Delete the wording proposed in the ROP for Sections 1.3, 1.3.1, and 1.3.2 and revert to the verbiage found in the current edition of NFPA 75, Section 1.3.G.

Substantiation: The proposed text in Proposal 75-2 (Log #CP9) would allow the user of this standard to pick and choose which provisions of the standard should be applied, based upon an undefined risk analysis. This would effectively change the status of the document from a Standard to a Recommended Practice.

Committee Meeting Action: **Accept in Principle**

Committee Statement: See Committee Action on Comment 75-3 (Log #6). The action on log 6 meets the objection of the submitter through their substantiation, to not allow the user of the standard to pick and choose which provisions of the standard should be applied.

75-2 Log #19
(1.3)

Final Action: Accept in Principle

Submitter: Kenneth E. Isman, National Fire Sprinkler Association, Inc.

Comment on Proposal No: 75-2

Recommendation: Reject Proposal 75-2.

Substantiation: We support Mr. Deegan's negative ballot on the ROP. The committee cannot develop a standard that is optional to follow. We recognize that some data centers/computer systems are going to need more protection than others. But the way to handle this is to set up different levels of protection under the standard and allow engineers to select which level they want. There are some items that are necessary for all data centers/computer systems and those items should not be made optional under the scope of the document.

Committee Meeting Action: **Accept in Principle**

Committee Statement: See Committee Action on 75-3 (Log #6). The action on log 6 meets the objection of the submitter through their substantiation, to not allow the user of the standard to pick and choose which provisions of the standard should be applied.

75-3 Log #6
(1.3.1)

Final Action: Accept

Submitter: Thomas J. Wysocki, Guardian Services, Inc.

Comment on Proposal No: 75-2

Recommendation: Revise text to read as follows:

1.3.1 A documented risk assessment shall be the basis for implementation of this Standard or portions thereof.

Substantiation: The language proposed in CP#9 allows the NFPA 75 or portions thereof to be applied or not applied based on a risk evaluation. A standard contains minimum requirements. If a facility falls under the purview of the standard, all provisions of the standard shall be applied to that facility unless the authority having jurisdiction waives a requirement. To permit otherwise, effectively turns the standard into a recommended practices.

Committee Meeting Action: **Accept**

75-4 Log #12
(1.3.1)

Final Action: Accept

Submitter: Richard P. Puig, Fike Corporation

Comment on Proposal No: 75-2

Recommendation: Revise text to read as follows:

1.3.1 A documented risk assessment shall be the basis for implementation of this Standard ~~or portions thereof~~.

Substantiation: Chapter 4 of NFPA 75 provides for a risk assessment to determine the applicability of the standard as a whole. CP 9 would permit the user of the standard to choose specific portions of the standard to apply or not apply. NFPA Standards provide minimum requirements enforceable for hazards addressed by the standard. None of these minimum requirements should be optional. Allowing optional "requirements" effectively makes the document a recommended practice rather than a standard.

This is not original material; its reference/source is as follows:

This is extracted from the NFPA 75 ROP CP #9.

Committee Meeting Action: Accept

75-5 Log #29
(1.3.1)

Final Action: Accept

Submitter: Bernhard G. Bischoff, Chemetron Fire Systems

Comment on Proposal No: 75-2

Recommendation: Revise text to read as follows:

1.3.1 A documented risk assessment shall be the basis for implementation of this Standard ~~or portions thereof~~.

Substantiation: Chapter 4 of NFPA 75 provides for a risk assessment to determine the applicability of the standard as a whole. CP 9 would permit the user of the standard to choose specific portions of the standard to apply. NFPA Standards provide minimum requirements enforceable for hazards addressed by the standard. none of these minimum requirements should be optional. Allowing optional "requirements" effectively makes the document recommended practice rather than a standard.

This is not original material; its reference/source is as follows:

This is extracted from the NFPA 75 ROP CP #9.

Committee Meeting Action: Accept

75-6 Log #11
(2.3.2)

Final Action: Accept

Submitter: John F. Bender, Underwriters Laboratories Inc.

Comment on Proposal No: 75-4

Recommendation: Revise as follows:

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

ANSI/UL 72, Standard for Tests for Fire Resistance of Record Protection Equipment, 2001, including revisions through November 6, 2009.

ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials, 2008, including revisions through September 13, 2010.

ANSI/UL 900, Standard for Air Filter Units, 2004, including revisions through November 6, 2009.

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

ANSI/UL 60950-1, Information Technology Equipment — Safety — Part 1: General Requirements, 2007.

Substantiation: Reason: To update referenced standard to most recent edition.

Committee Meeting Action: Accept

75-7 Log #8

Final Action: Reject

(3.3.x.2 Abandoned Cables (New))

Submitter: Marcelo M. Hirschler, GBH International

Comment on Proposal No: 75-7

Recommendation: Add new text to read as follows:

3.3.x.2 Abandoned Cables. Installed cables that are not terminated at equipment and are not identified for future use.

Substantiation: Retain the definition accepted at the ROP which is simpler and more generic and will allow for more consistency in NFPA definitions, a goal of Standards Council.

Committee Meeting Action: Reject

Committee Statement: While the committee agrees with the substantiation to retain the wording from the ROP, the revised text is not consistent with the substantiation of the submitter by using different wording than accepted in the ROP.

75-8 Log #9

Final Action: Hold

(3.3.x.3 Information Technology Equipment (ITE) (New))

Submitter: Marcelo M. Hirschler, GBH International

Comment on Proposal No: 75-9

Recommendation: Revise text to read as follows:

3.3.x.3 Information Technology Equipment (ITE). Equipment and systems rated 600V or less, normally found in offices or other business establishments and similar environments classified as ordinary locations, which are used for creation, and manipulation of data, voice, video and similar signals that are not communications equipment as defined in Part I of Article 100 and do not process communications circuits as defined in section 800.2 of NFPA 70 *National Electrical Code*. [70:645.2]

3.3.x 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) and technical support equipment (e.g., computers). [70:100]

3.3.x Communications Circuit. The circuit that extends voice, audio, video, data, interactive services, telegraph (except radio), outside wiring for fire alarm and burglar alarm from the communications utility to the customer's communications equipment up to and including terminal equipment such as a telephone, fax machine, or answering machine. [70:800.2]

Substantiation: If the definitions of "communications equipment" and "communications circuits" are needed they should be added into NFPA 75 and not referenced from the NEC. The appropriate definitions are added in this comment. In fact, the definitions of "communications equipment" and "communications circuit" have been added to NFPA 75 by proposals 75-11 and 75-15, and acceptance of proposal NFPA 75-9 as is would create a potential conflict.

If this is to stay as a definition with all the references to the NEC then there need to be two references to the NEC, to read as follows:

3.3.x.3 Information Technology Equipment (ITE). Equipment and systems rated 600V or less, normally found in offices or other business establishments and similar environments classified as ordinary locations, which are used for creation, and manipulation of data, voice, video and similar signals that are not communications equipment as defined in Part I of Article 100 of NFPA 70 *National Electrical Code* and do not process communications circuits as defined in section 800.2 of NFPA 70 *National Electrical Code*.

The proposed definition is not really an extract from the NEC since the definition has actually been changed when compared to the NEC one, which reads:

Information Technology Equipment (ITE). Equipment and systems rated 600V or less, normally found in offices or other business establishments and similar environments classified as ordinary locations, which are used for creation, and manipulation of data, voice, video and similar signals that are not communications equipment as defined in Part I of Article 100 and do not process communications circuits as defined in 800.2.

Committee Meeting Action: Hold

Committee Statement: This is new material. The committee does not have adequate time to review these new definitions.

75-9 Log #7

Final Action: Accept

(3.3.x.7 Raceway and A.3.3.x.7 (New))

Submitter: Marcelo M. Hirschler, GBH International

Comment on Proposal No: 75-12

Recommendation: Revise text to read as follows:

3.3.x.7* Raceway. An enclosed channel of metal or nonmetallic materials designed expressly for holding wires, cables, or busbars, with additional functions as permitted in NFPA 70, National Electrical Code. ~~Raceways include, but are not limited to, rigid metal conduit, rigid nonmetallic conduit, intermediate metal conduit, liquidtight flexible conduit, flexible metallic tubing, flexible metal conduit, electrical nonmetallic tubing, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface raceways, wireways, and busways.~~

A.3.3.x.7 Raceways include, but are not limited to, rigid metal conduit, rigid nonmetallic conduit, intermediate metal conduit, liquidtight flexible conduit, flexible metallic tubing, flexible metal conduit, electrical nonmetallic tubing, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface raceways, wireways, and busways.

Substantiation: Definitions have to be in single sentences in accordance with the NFPA Manual of Style. The second sentence is not really a part of the definition but added clarification and should go in the annex. If the technical committee chooses, a section in the body of the standard can be added for this information but it really does not belong as it does not tell the user what to do about it.

This is not really an extract from the NEC since the definition has actually been changed when compared to the NEC one, which reads:

Raceway. An enclosed channel of metal or nonmetallic materials designed expressly for holding wires, cables, or busbars, with additional functions as permitted in this Code. Raceways include, but are not limited to, rigid metal conduit, rigid nonmetallic conduit, intermediate metal conduit, liquidtight flexible conduit, flexible metallic tubing, flexible metal conduit, electrical nonmetallic tubing, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface raceways, wireways, and busways.

Committee Meeting Action: Accept

75-10 Log #22

Final Action: Hold

(3.3.12 Noncombustible)

Submitter: Randy Willard, National Reconnaissance Office

Comment on Proposal No: 75-47

Recommendation: Delete current Section 3.3.12 (definition of Noncombustible) in entirety and replace with:

~~**3.3.12 Noncombustible.** A material that, in the form in which it is used and under the conditions anticipated, will not aid combustion or add appreciable heat to an ambient fire. Materials, when tested in accordance with ASTM E 136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*, and conforming to the criteria contained in Section 8 of the referenced standard, are considered as noncombustible.~~

3.3.12 Material.

3.3.12.1 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 of noncombustible or limited-combustible.

3.3.12.2* Limited-Combustible (Material). Refers to a building construction material not complying with the definition of noncombustible that, in the form in which it is used, has a potential heat value not exceeding 3500 Btu/lb (8141 kJ/kg), when tested in accordance with NFPA 259, *Standard Test Method for Potential Heat of Building Materials*, and includes either of the following: (1) materials having a structural base of noncombustible material, with a surfacing not exceeding a thickness of 1/8 in. (3.2 mm) that has a flame spread index not greater than 50; (2) materials, in the form and thickness used, having neither a flame spread index greater than 25 nor evidence of continued progressive combustion, and of such composition that surfaces that would be exposed by cutting through the material on any plane would have neither a flame spread index greater than 25 nor evidence of continued progressive combustion.

3.3.12.3 Noncombustible (Material). A material that, 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. Materials that are reported as passing ASTM E 136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C*, shall be considered noncombustible materials.

A.3.3.12.2 Limited-Combustible (Material). Materials subject to increase in combustibility or flame spread index beyond the limits herein established through the effects of age, moisture, or other atmospheric condition are considered combustible. (See NFPA 259, *Standard Test Method for Potential Heat of Building Materials*, and NFPA 220, *Standard on Types of Building Construction*.)

Substantiation: Both 75-47 and 75-35 use the term “combustible” which is not currently listed in the Chapter 3 definitions. The proposed definitions are taken directly from NFPA 101.

Committee Meeting Action: Hold

Committee Statement: Held as new material.

75-11 Log #2

Final Action: Accept in Principle

(3.3.16 Support Equipment and A.3.3.16)

Submitter: Thomas J. Wysocki, Guardian Services, Inc.

Comment on Proposal No: 75-18

Recommendation: Revise text to read as follows:

3.3.16* Support Equipment. Equipment that is essential to the operation, maintenance, installation or de-installation of information technology equipment.

A.3.3.16 Support Equipment. Support equipment can mean the physical infrastructure equipment necessary for the information technology equipment, such as equipment racks, power supply and distribution equipment, air conditioning, and lighting. It can also include such things as test equipment, material handling equipment, ladders, tools and other equipment that may be required for installation and maintenance and which may not be permanently installed. Non-permanent equipment should be removed from the Information technology equipment space when not needed for a particular task.

Substantiation: Existing 6.1.1 permits only information technology and support equipment in the information technology equipment room. The proposal defines the support equipment as permitted by 6.1.1. The proposal does not allow for equipment required for installation, testing and removal of IT equipment. The comment clarifies that such "support equipment" is permitted.

This is not original material; its reference/source is as follows:

The origin is Log 84 submitted by Stephen McCluer as a proposal for NFPA 75 F2011.

Committee Meeting Action: Accept in Principle

Revise text to read as follows:

3.3.16* Support Equipment. Permanently installed equipment that is essential to the operation as well as equipment temporarily used for maintenance, installation or de-installation of information technology equipment.

A.3.3.16 Support Equipment. Support equipment can mean the physical infrastructure equipment necessary for the information technology equipment, such as equipment racks, power supply and distribution equipment, air conditioning, and lighting. It can also include such things as test equipment, material handling equipment, ladders, tools and other equipment that may be required for installation and maintenance and which may not be permanently installed. Non-permanent equipment should be removed from the Information technology equipment space when not needed for a particular task.

Committee Statement: Revised to clarify that this equipment may be either permanently installed equipment as well as equipment for temporary use.

75-12 Log #27

Final Action: Accept in Principle

(3.4 Aisle Containment Definitions)

Submitter: Ronald Marts, Telcordia Technologies / Rep. AT&T, Verizon, Qwest

Comment on Proposal No: 75-63

Recommendation: Add new text to read as follows:

3.4 Aisle Containment Definitions

3.4.1* Aisle. The passageway between ICTE, or between ICTE and a wall, which allows personnel access to the ICTE for service or operation of the equipment.

3.4.2* Aisle Containment. An HVAC method deployed in the occupied area of an air-cooled ICTE space utilizing nonstructural separation of hot exhaust air from cooler intake air between equipment cabinets, rows of ICTE, 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.

3.4.3* Cold Aisle. The aisle in front of the airflow intakes on the ICTE where HVAC cooling airflow is controlled.

3.4.4* Hot Air Collar. An air conveyance assembly used to direct heated exhaust air from ICTE cabinet(s), enclosure(s) or rack(s) directly to a return air plenum; also known as an air removal unit (ARU).

3.4.5* Hot Aisle. The aisle at the rear of the ICTE where heated exhaust air is controlled and directed into the aisle for return to the HVAC equipment.

3.4.6* Information and Communications Technology Equipment (ICTE). Equipment and systems that are used for the creation, manipulation, and transmission of data, voice, video and similar signals via electronic media.

Add new annex Section A.3.4 for new definitions:

A.3.4.1 Aisle. The key elements of this definition are:

- 1) Passageway between equipment, meaning it is intended for movement of people and/or equipment,
- 2) Typically between opposing rows of ICTE enclosures or racks, but it could be between two free-standing pieces or racks of ICTE

- 3) Intended for routine human activity such as service or operation (therefore not a plenum space)

A.3.4.2 Aisle Containment. The key elements of this definition are:

- 1) An occupied area (excluding areas above a ceiling or below a raised floor)
- 2) Utilizing "nonstructural separation" between hot and cold air (excluding construction methods such as fire-rated walls).

- 3) The aisle can be either a "hot aisle" or a "cold aisle" or a mix of both at select portions of the aisle

A.3.4.3 Cold Aisle. The key elements of this definition are:

- 1) Air flow is controlled
- 2) Intake air is cold, implying an aisle normally intended for operation of the ICTE
- 3) Air is from the output of the HVAC

A.3.4.4 Hot Air Collar. The key elements of this definition are:

- 1) Air conveyance assembly, sometimes referred to as a "duct" or a "chimney"
- 2) Typically from a specific equipment rather than from larger areas such as aisles
- 3) See figures: cases 3a and 3b per the ppt

A.3.4.5 Hot aisle. The key elements of this definition are:

- 1) Air flow is controlled
- 2) Exhaust air is hot, implying an aisle normally intended for servicing of the ICTE
- 3) Air returns to the input of the HVAC

A.3.4.6 ICTE. The term ICTE is widely used in the industry to designate electronic equipment such as computers, servers, and data storage devices. It designates equipment both for manipulating and transmitting the signals. It may also include associated power and cooling systems located in, on, or on top of the lineups.

Substantiation: The NFPA 75 and 76 chairs and committees created placeholders in the ROP for addressing fire protection requirements for HVAC air containment systems. A joint task group was formed to prepare proposals that would address the immediate and apparent gaps associated with fire protection and HVAC air containment systems. The task group has prepared the following comments as a result. Details of the task group effort, members, etc. can be found in the meeting minutes and will be provided by the task group chair via a summary of the effort at the ROC meeting.

Committee Meeting Action: Accept in Principle**3.4 Aisle Containment Definitions**

3.4.1* Aisle. The passageway between ITE, or between ITE and a wall, which 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.

3.4.3* Cold Aisle. The aisle in front of the airflow intakes on the ITE where HVAC cooling airflow is controlled.

3.4.4* Hot Air Collar. An air conveyance assembly used to direct heated exhaust air from ITE cabinet(s), enclosure(s) or rack(s) 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.

Add new annex Section A.3.4 for new definitions:

A.3.4.1 Aisle. The key elements of this definition are:

1) Passageway between equipment, meaning it is intended for movement of people and/or equipment,
2) Typically between opposing rows of ITE enclosures or racks, but it could be between two free-standing pieces or racks of ITE

3) Intended for routine human activity such as service or operation (therefore not a plenum space)

A.3.4.2 Aisle Containment. The key elements of this definition are:

1) An occupied 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) The aisle can be either a "hot aisle" or a "cold aisle" or a mix of both at select portions of the aisle

A.3.4.3 Cold Aisle. The key elements of this definition are:

1) Air flow is controlled

2) Intake air is cold, implying an aisle normally intended for operation of the ITE

3) Air is from the output of the HVAC

A.3.4.4 Hot Air Collar. The key elements of this definition are:

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

2) Typically from a specific equipment rather than from larger areas such as aisles

3) The hot air collar is not required to be physically connected to a duct or plenum.

A.3.4.5 Hot aisle. The key elements of this definition are:

1) Air flow is controlled

2) Exhaust air is hot, implying an aisle normally intended for servicing of the ITE

3) Air returns to the input of the HVAC

A.3.3.10 IETE. The term IETE is widely used in the industry to designate electronic equipment such as computers, servers, and data storage devices. It designates equipment both for manipulating and transmitting the signals. It may also include associated power and cooling systems located in, on, or on top of the lineups.

Committee Statement: Changes were made to keep consistency with how the words are used in the text of the Standard.

A reference to figures in a power point was removed.

75-13 Log #20
(4.1, 8.1.1.2, and A.4.1.2)

Final Action: Reject

Submitter: Kenneth E. Isman, National Fire Sprinkler Association, Inc.

Comment on Proposal No: 75-20

Recommendation: Reject Proposal 75-20.

Substantiation: We support Mr. Deegan’s negative ballot on the ROP. We recognize that some data centers/computer systems are going to need more protection than others. But the way to handle this is to set up different levels of protection under the standard and allow engineers to select which level they want. There are some items that are necessary for all data centers/computer systems (including a sprinkler system or some equivalent form of protection) and those items should not be made optional under the scope of the document. All information stored in data centers or computer systems covered under the scope of NFPA 75 is important to someone. The use of the term “critical” in the proposed Section 8.1.1.2 is too permissive to include in a standard. This unenforceable term is simply going to be used to help a building owner sneak out of the requirements for a protection system, which is not in the best interest of the property owner.

Committee Meeting Action: Reject

Committee Statement: The action taken on proposal 75-20 provides balance in application of fire protection elements based on risk considerations and performance assessments.

75-14 Log #15
(4.2)

Final Action: Reject

Submitter: Mark L. Robin, DuPont

Comment on Proposal No: 75-22

Recommendation: Delete the wording proposed in the ROP for Sections 4.2 through 4.2.2.2 and revert to the verbiage found in the current edition of NFPA 75, Sections 4.2 through 4.2.2.

Substantiation: The proposed text in Proposal 75-22 (Log #CP11) would render private network telecommunication equipment in IT areas exempt from the provisions of NFPA 75; hence, the proposed text would effectively change the status of the document from a Standard to a Recommended Practice.

Committee Meeting Action: Reject

Committee Statement: The separate subsections clearly state the need for a risk assessment based on the use of ITE.

75-15 Log #3
(4.2.1.2)

Final Action: Accept in Principle

Submitter: Thomas J. Wysocki, Guardian Services, Inc.

Comment on Proposal No: 75-22

Recommendation: Delete text to read as follows:

4.2.1.2 The provisions of this standard shall apply to those areas housing telecommunications equipment that are part of a private network ~~where the need for protection has been determined by the risk evaluation outlined in 4.2.1.1.~~

Substantiation: The language proposed in CP#11 allows the provisions of NFPA 75 which is a standard to be applied or not applied based on a risk evaluation. A standard contains minimum requirements. If a facility falls under the purview of the standard, all provisions of the standard shall be applied to that facility unless the authority having jurisdiction waives a requirement. To permit otherwise, effectively turns the standard into a recommended practice.

Committee Meeting Action: Accept in Principle

Revise to read:

4.2.1.2 The provisions of this standard shall apply to those areas housing telecommunications equipment that are part of a private network or where the need for protection has been determined by the risk evaluation outlined in 4.2.1.1.

Committee Statement: By inserting the word "or" it is maintained that private networks are to abide by the requirements of NFPA 75 and provides the opportunity to provide equivalent fire protection performance based on the risk assessment.

75-16 Log #18

Final Action: Accept

(5.5.2, 5.5.2.1, and 5.5.2.2)

Submitter: Joshua Elvove, U.S. General Services Administration

Comment on Proposal No: 75-30, 75-31

Recommendation: Revise text to read as follows:

5.5.2 Pass-throughs or windows located in fire-resistant rated construction shall be equipped with an automatic fire-rated shutter, service counter door or fire-rated windows installed and maintained in accordance with NFPA 80, Standard for Fire Doors and Other Opening Protectives.

5.5.2.1 The shutters, service counter door or windows shall be operated automatically by the presence of either smoke or fire on either side of the wall.

5.5.2.2 The fire-rating of the shutters, service counter door or windows shall be not less than the fire-rating of the wall in which it is located.

Substantiation: To coordinate action taken by 75-30 with 75-31. Additional changes were made to add "service counter door" to 5.5.2.1 and 5.5.2.2 to be consistent with change previously made to 5.5.2.

Committee Meeting Action: Accept

75-17 Log #17

Final Action: Accept

(5.5.3 and A.5.5.3)

Submitter: Joshua Elvove, U.S. General Services Administration

Comment on Proposal No: 75-29

Recommendation: Revise text to read as follows:

5.5.3* All air ducts and air transfer openings passing through fire-resistant rated construction shall be provided with automatic fire and smoke dampers.

5.5.3.1* Fire and smoke dampers shall be installed in accordance with NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*.

5.5.3.2 Fire dampers shall be maintained in accordance with NFPA 80, *Standard for Fire Doors and Other Opening Protectives*.

5.5.3.3 Smoke dampers and combination fire/smoke dampers shall be maintained in accordance with *NFPA 105, Standard for Smoke Door Assemblies and Other Opening Protectives*.

A.5.5.3.1 NFPA 75 requires smoke or fire dampers in locations where NFPA 90A may not. ~~The reference to NFPA 90A draws in the technical installation and maintenance requirements.~~

Substantiation: Fire and smoke damper installation is governed by NFPA 90A. However, fire damper maintenance is governed by NFPA 80, not NFPA 90A, and smoke dampers maintenance is governed by NFPA 105, not NFPA 90A. Relocating the annex from 5.5.3 to 5.5.3.1 is editorial since 5.5.3 has been broken into multiple parts. The last sentence added to A.5.5.3 has been deleted as it really isn't necessary since the requirements of 5.5.3.2 and 5.5.3.3 are fairly obvious.

Committee Meeting Action: Accept

75-18 Log #28
(5.7 (New))

Final Action: Accept in Principle

Submitter: Ronald Marts, Telcordia Technologies / Rep. AT&T, Verizon, Qwest

Comment on Proposal No: 75-63

Recommendation: Add new text to read as follows:

5.7 Aisle Containment Systems for ICTE Equipment

5.7.1* Aisle containment systems shall be permitted to be one of the following:

(1) Factory-packaged. Systems designed, provided, and installed by the manufacturer of the ICTE equipment

(2) Field-installed. Aftermarket systems designed and provided by others and installed after the ICTE equipment is in place

5.7.2 Both types of aisle containment systems shall comply with the following Sections 5.7.3 through 5.7.10.

5.7.3 For Aisle Containment Systems containing combustible materials

that can contribute to the spread of a fire, such materials shall have a flame spread index of not greater than 50 in accordance with one or more of the following:

(1) NFPA 255, Standard Method of Test of Surface Burning Characteristics of Building Materials;

(2) ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials;

(3) UL 723, Standard for Test for Surface Burning Characteristics of Building Materials.

5.7.4* Aisle containment systems and hot air collars shall not be considered air plenums.

5.7.5 Aisle containment systems shall be permitted to be applied to hot aisles or cold aisles of ICTE.

5.7.6* Smoke Detectors within aisle containment systems shall be rated for the intended temperatures of hot aisles when installed in those locations.

5.7.7 Where detection and/or suppression system are present, one of the following shall be met:

(1) Aisle containment systems maintain detection and/or suppression system compliance with applicable codes, standards and manufacturers listings and warranties for the , OR

(2) The existing suppression and detection systems are modified so as to maintain compliance with the applicable codes, standards and manufacturers listings and warranties.

5.7.8 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 to comply with NFPA 13.

5.7.8.1 Sprinkler system modification shall not be required where an automatic means exists to remove the obstructions prior to sprinkler operation and where there will be no impact on the time response of the sprinkler operation.

5.7.9* 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.

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

5.7.10.1 Gaseous suppression system modification shall not be required where an automatic means exists to remove the obstructions prior to suppression operation.

5.7.10.2 The plenum shall be included as part of the protected volume when the following conditions apply:

(1) Hot air collars are connected to a ceiling plenum and,

(2) ICTE continues to operate during system discharge

5.7.11 Where factory-built aisle containment systems are provided for ICTE aisles, they shall be designed and installed in accordance with the manufacturer's instructions and listings.

Add new annex Section A.5.7 for new text in Section 5.7:

A.5.7.1 Some aisle containment systems are provided as part of a factory packaged and listed system by the cabinet manufacturers, while others are field installed after-market systems. In either case, the application of these systems should be in accordance with the manufacturer's instructions

A.5.7.4 Where other air plenums are present, the space above the raised floor and below the suspended ceiling is typically accessible space to both occupants and first responders for maintenance access, fire fighting activities, etc and therefore does not need to be classified as a plenum space. The addition of aisle containment systems does not change the hazards contained within those containment areas and therefore does not necessitate different construction materials as required in plenum spaces as defined elsewhere in this NFPA Standard and others.

A.5.7.6 The temperatures in hot aisles can exceed 100F, which is often the listing limit on many types of detectors.

A.5.7.9 Aisle containment and hot air collars should be reviewed for any impact to the suppression systems where present to produce the required design concentration throughout the entire volume they serve.

Substantiation: The NFPA 75 and 76 chairs and committees created placeholders in the ROP for addressing fire protection requirements for HVAC air containment systems. A joint task group was formed to prepare proposals that would address the immediate and apparent gaps associated with fire protection and HVAC air containment systems. The task group has prepared the following comments as a result. Details of the task group effort, members, etc. can be found in the meeting minutes and will be provided by the task group chair via a summary of the effort at the ROC meeting.

Committee Meeting Action: Accept in Principle

Replace text proposed in ROP-63 and number as follows:

5.7 Aisle Containment and hot air collar Systems for Information Technology Equipment

5.7.1* 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.

5.7.2 Both types of aisle containment systems shall comply with the following sections 5.7.3 through 5.7.10.

5.7.3 Elements of aisle containment and hot air collars shall be constructed of materials that have a maximum flame spread index of 50 and a maximum smoke development of 450 in accordance with one or more of the following:

(1) ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials;

(2) UL 723, Standard for Test for Surface Burning Characteristics of Building Materials.

5.7.4* Aisle containment systems and hot air collars shall not be considered to be plenums.

5.7.5 Aisle containment systems shall be permitted to be applied to hot aisles or cold aisles of ITE.

5.7.6* Detection and suppression components within aisle containment systems shall be rated for the intended temperatures of hot aisles when installed in those locations.

5.7.7* Where aisle containment systems are installed, the existing suppression and detection systems shall be evaluated, modified and tested as necessary to maintain compliance with the applicable codes and standards.

5.7.8 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.

5.7.8.1* 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 the suppression system operation

(2) removing the obstruction or portion thereof does not compromise means of egress per NFPA101

(3) the design and installation of removable obstruction elements does not diminish the level of protection below that which 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.

5.7.9* 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.

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

5.7.10.1* Gaseous suppression 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 the suppression system operation

(2) removing the obstruction or portion thereof does not compromise means of egress per NFPA101

(3) the design and installation of removable obstruction elements does not diminish the level of protection below that which 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.

Add new annex section A.5.7 for new section 5.7:

A.5.7.4 Where plenums are present, the space above the raised floor and below the suspended ceiling is typically accessible space to both occupants and first responders for maintenance access, fire fighting activities, etc and therefore does not need to be classified as a plenum. The addition of aisle containment systems installed in accordance with this Standard does not change the hazards contained within those containment areas and therefore does not

necessitate different construction materials as required in plenum spaces as defined elsewhere in this NFPA Standard and others.

A.5.7.6 Temperatures of 100°F are possible in hot aisles. Temporary increases in temperature above 100°F in hot aisles may occur during normal facility operations. Some smoke detectors are listed for maximum operating temperature of 100°F. Where smoke detectors are located in hot aisles or in the air stream exhausted from hot aisles, detectors should have appropriate listing for temperatures above 100°F.

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 IT equipment, 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 IT equipment 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 150 degrees have been observed in hot aisles upon failure of the HVAC system.

A.5.7.8.1 This section addresses removable curtains and aisle containment materials, which are otherwise referred to as removable obstructions. Fixed obstructions are clearly addressed for suppression systems within NFPA 13. Means other than automatic smoke detection used for removing the obstructions (i.e. thermal mechanical & fusible links) still need further research by the industry and are not clearly demonstrating the capability of activating without impacting the timed response effective performance of suppression systems.

(1) This action may be compared to readying the space before suppression such as initiating the closing of fire doors, dampers, and the like.

(4) The releasing devices can be similar to those used for initiating fire doors, dampers, and the like.

A.5.7.10.1 This section addresses removable curtains and aisle containment materials, which are otherwise referred to as removable obstructions. Fixed obstructions are clearly addressed for suppression systems within NFPA 2001. Means other than automatic smoke detection used for removing the obstructions (i.e. thermal mechanical & fusible links) still need further research by the industry and are not clearly demonstrating the capability of activating without impacting the effective performance of suppression systems.

(1) This action may be compared to readying the space before suppression such as initiating the closing of fire doors, dampers, and the like.

(4) The releasing devices can be similar to those used for initiating fire doors, dampers, and the like.

Committee Statement: The TC recognizes the hot aisle and cold aisle containment systems present new fire protection challenges. Currently, hot aisle and cold aisle containment systems are being installed to improve the efficiency of the HVAC systems. The components currently used in these systems may include highly combustible materials. The changes in air flow and obstructions created may compromise fire detection and suppression systems. The text accepted by the TC limits the combustibility of the materials used in the construction of partitions and requires reevaluation of the fire detection and suppression systems and appropriate mitigation to ensure that adequate detection and suppression are maintained.

75-19 Log #23
(6.1)

Final Action: Accept in Part

Submitter: Randy Willard, National Reconnaissance Office

Comment on Proposal No: 75-35

Recommendation: Revise text to read as follows:

~~6.1.1.1 Small supervisory offices and similar light-hazard occupancies directly related to the electronic equipment operations shall be permitted within the information technology equipment room if noncombustible containers are provided for combustible material.~~

~~6.1.1.2 Records shall be permitted in the information technology equipment room to the extent allowed in Chapter 9.~~

~~6.1.2 Office furniture in the information technology equipment room shall be of metal construction.~~

~~6.1.2.1 Metal frame chairs with integral seat cushions shall be permitted.~~

~~6.1.2.2 Insulated or controlled conductive coverings shall be permitted on surfaces of chairs, tables, desks, and so forth.~~

~~6.1.3 Only approved self-extinguishing-type trash receptacles shall be used in the information technology equipment area.~~

6.1.2 Small work areas shall be permitted within the ITE room provided 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 desktop.

(3) Space dividers and system furniture panels and chairs with upholstered assemblies exhibit a maximum rate of heat release not exceeding 80 kW and a maximum total heat released not exceeding 25 MJ within the first 10 minutes of test when tested in accordance with one of the following:

(a) ASTM E 1537

(b) California Technical Bulletin 133

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

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

(6) Heat or spark producing devices such as soldering irons shall not be permitted.

(7) Trash receptacles where provided shall be of an approved self-extinguishing type.

Substantiation: The bulk of the proposed changes takes the committee's accepted language of 75-35 and reorganizes for improved flow of requirements, consolidation of like requirements, and removal of duplicative material.

Subparagraph 6 is added to prohibit heat producing devices such as soldering irons. Subparagraph 7 reinstates the existing 6.1.3.

Committee Meeting Action: Accept in Part

Accept all changes besides item (6).

Committee Statement: Item 6 is deleted due to being new material.

75-20 Log #1
(8.1)

Final Action: Accept

Submitter: Scott J. Harrison, UTC Fire & Security/Marioff North America

Comment on Proposal No: 75-43

Recommendation: Add new text to read as follows:

8.8 Water Mist Fire Protection Systems

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

8.8.2 Water mist fire protection systems shall be designed and installed for the specific hazards and protection objectives specified in the listing.

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

Substantiation: The additional text will align NFPA 75 2009 Chapter 8 Fire Protection and Detection Equipment (8.1 Automatic Sprinkler Systems) with NFPA 76 2009 Edition Chapter 8 Fire Protection Elements (8.6...Sprinkler Systems/Water Mist Fire Protection Systems).

Water Mist Systems have been Factory Mutual approved for Class 5560 Light Hazard Occupancies in open and enclosed spaces per Data Sheet 4-2 paragraph 2.2 and Computer Room Subfloors.

As stated in the report "FM approved Light Hazard water mist systems can be used to protect non-storage and non-manufacturing occupancies such as: data processing centers". (Note NFPA 13 2010 Edition Paragraph A5.2 states "Light Hazard Occupancies include occupancies having uses and conditions similar to the following:Offices, including data processing".)

Since Water Mist is approved for this occupancy, the intent of the proposal is to provide this technology as an optional solution for protecting IT equipment on par with water sprinkler systems or gaseous agent systems per the approvals noted above.

NFPA Standards..10 (Fire Extinguishers), 12 Carbon Dioxide Extinguishing Systems, 12A Halon 1301 Fire Extinguishing Systems, 13 Sprinkler Systems, 14 Hose Systems and 2001 Clean Agent Fire Extinguishing Systems are all addressed and referenced as fire protection solutions in this standard. Water Mist should be included as a viable option.

Since these two occupancy types (NFPA 75 Information Technology Equipment and NFPA 76 Telecommunications Facilities) are combined in some environments such as telephone switching stations with computer server / data rooms and air traffic control towers with communications and computer equipment rooms, it would keep the standards in line with each other. This would reduce the need for formal interpretation and provide clear wording for AHJs that has already been approved in NFPA 76 and define another fire protection alternative in NFPA 75 that already exists in NFPA 76.

This is not original material; its reference/source is as follows:

All wording has been sourced from NFPA 76 Chapter 8 Section 8.6.2.5 Paragraphs 8.6.2.5.1 thru 8.6.2.5.3.

Committee Meeting Action: Accept

75-21 Log #13
(8.1.1.2)

Final Action: Accept in Principle

Submitter: Mark L. Robin, DuPont

Comment on Proposal No: 75-22

Recommendation: Revise text to read as follows:

8.1.1.2 An automatic sprinkler system, a carbon dioxide extinguishing system, or ~~an inert~~ a clean agent fire extinguishing system for the protection of the area below a raised floor...

Substantiation: Clean agents are an effective option for underfloor suppression, particularly if they are already being employed in the space above the underfloor. Comment 75-44 included this revision and was accepted in principle.

Committee Meeting Action: Accept in Principle

Committee Statement: See action on Committee Comment 75-30 (Log #4).

75-22 Log #16
(8.1.1.2)

Final Action: Reject

Submitter: Joshua Elvove, U.S. General Services Administration

Comment on Proposal No: 75-20, 75-47

Recommendation: Delete proposed 8.1.1.2(1) and 8.1.1.2(2) and accept original proposed text instead so 8.1.1.2 reads as follows:

8.1.1.2 An automatic sprinkler system, a carbon dioxide extinguishing system, or an inert agent fire extinguishing system for the protection of the area below ~~the a~~ raised floor in an information technology equipment room or information technology equipment area shall be provided, unless otherwise determined by the fire risk analysis in Section 4.1.

Substantiation: Although the change proposed by 75-20 and 75-47 offers some welcome relief to the existing mandatory underfloor fire suppression requirement, the exception won't apply if a single combustible is located below the raised floor. The guiding principle for relaxing the underfloor fire suppression requirement should be based upon the new risk analysis option provided by 4.1. The risk analysis incorporates the intent of new 8.1.1.2(1) since determining "where there critical need to protect data in the process, reduce equipment damage, and facilitate return to service" is inherently part of the risk analysis. If the analysis determines there isn't a need to protect the underfloor space, then it shouldn't matter whether any combustibles are located beneath the raised floor. Besides, per the new annex note in A.4.1.3, the risk analysis cannot eliminate a requirement to install sprinklers under the floor if already required by NFPA 13 (it can only eliminate the "extra" requirement for underfloor CO2 or inert agent).

Committee Meeting Action: Reject

Committee Statement: The committee has specified certain items which determine the need for protection under the raised floor and have supplemented this with additional annex material. These requirements more clearly specify when under floor protection is necessary.

75-23 Log #21
(8.1.1.2)

Final Action: Reject

Submitter: Kenneth E. Isman, National Fire Sprinkler Association, Inc.

Comment on Proposal No: 75-47

Recommendation: Reject Proposal 75-47.

Substantiation: We support Mr. Deegan's negative ballot on the ROP. We recognize that some data centers/computer systems are going to need more protection than others. But the way to handle this is to set up different levels of protection under the standard and allow engineers to select which level they want. There are some items that are necessary for all data centers/computer systems (including a sprinkler system or some equivalent form of protection) and those items should not be made optional under the scope of the document. All information stored in data centers or computer systems covered under the scope of NFPA 75 is important to someone. The use of the term "critical" in the proposed Section 8.1.1.2 is too permissive to include in a standard. This unenforceable term is simply going to be used to help a building owner sneak out of the requirements for a protection system, which is not in the best interest of the property owner.

Committee Meeting Action: Reject

Committee Statement: The committee has reconsidered its action on 75-47 and if combustibles are present underneath the raised floor the requirement for protection remains.

75-24 Log #24
(8.1.1.2)

Final Action: Reject

Submitter: Randy Willard, National Reconnaissance Office

Comment on Proposal No: 75-20

Recommendation: Add subsections (1) through (3) as follows:

8.1.1.2* An automatic sprinkler system, a carbon dioxide extinguishing system, or ~~an inert~~ a clean agent fire extinguishing system for the protection of the area below the raised floor in an information technology equipment room or information technology equipment area shall be provided when one or more of the following exist:

(1) Where sprinkler protection of the area is required by NFPA 13

(2) Where the raised access floor contains cables and is greater than 0.92 m (36 in.) in height

(3) Where the Fire Risk Analysis concludes underfloor suppression is required to protect data in the process, reduce equipment damage, and facilitate return to service

Substantiation: The committee action of Accept in Principle added language of a subsection (2) that read "The area below the raised floor contains combustible material". That passage would set a near absolute requirement for underfloor suppression which does not appear to be the intent of the original proposal. This proposal removes that passage and provides a reference to NFPA 13. The proposal also adds a requirement to provide underfloor suppression where the RAF is greater than 36 inches in height due to the potential accumulation of combustible materials and the clear ease of application and enforcement.

Committee Meeting Action: Reject

Committee Statement: Fire risk in the sub floor exists when combustibles are present regardless of the depth of the subfloor and regardless of whether NFPA 13 requires sprinkler protection.

75-25 Log #CC4
(8.1.1.2)

Final Action: Accept

Submitter: Technical Committee on Electronic Computer Systems,

Comment on Proposal No: 75-47

Recommendation: Revise text to read as follows:

8.1.1.2 An automatic sprinkler system or a gaseous fire extinguishing system shall be provided for the protection of the area below a raised floor in an information technology equipment room or information technology equipment area when one or more of the following exist:

(1) Where there is a critical need to protect data in the process, reduce equipment damage, and facilitate return to service

(2) The area below the raised floor contains combustible material

8.1.1.3 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

8.1.1.4 Where a clean agent fire extinguishing systems 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.

Substantiation: This comment was developed to address multiple public comments. A clarification was provided on how different gaseous systems may provide under floor protection.

Committee Meeting Action: Accept

75-26 Log #5
(8.1.3)

Final Action: Hold

Submitter: James Everitt, Western Regional Fire Code Development Committee

Comment on Proposal No: 75-48

Recommendation: Add text to read as follows:

Sprinkler systems protecting information technology equipment areas shall be valved separately from other sprinkler systems. Valves shall be in an approved location that is exterior to the room, readily accessible and labeled as to what they control.

Substantiation: Electronic equipment is expensive and susceptible to water damage timely operation of the valve is important. Operating the valve should not expose personnel to smoke

Committee Meeting Action: Hold

Committee Statement: Valve location is new material and has not had time for public review.

75-27 Log #CC5
(8.1.3)

Final Action: Accept

Submitter: Technical Committee on Electronic Computer Systems,

Comment on Proposal No: 75-48

Recommendation: Reject proposal 75-48.

Substantiation: The committee agrees with Mr. Deegan's explanation of his negative ballot.

Committee Meeting Action: Accept

75-28 Log #25
(8.2.1)

Final Action: Accept

Submitter: Randy Willard, National Reconnaissance Office

Comment on Proposal No: 75-49

Recommendation: Renumber list entry 8.2.1 (3) to be an independent subsection and renumber remaining subsections as required. Add alternative smoke detection configurations.

8.2.1* Automatic detection systems shall be installed in the following locations:

(1) At the ceiling level throughout the information technology equipment area

(2) Below the raised floor of the information technology equipment area containing cables

~~(3) Above the suspended ceiling and below the raised floor in the information technology equipment area where these spaces are used to recirculate air to other parts of the building~~

8.2.2 Where in the information technology equipment area 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 5.5.3:

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

(2) At each smoke damper

(3) At other approved locations to detect smoke entering or exiting the information technology equipment area

~~8.2.3 8-2-2~~ (no change).

~~8.2.4 8-2-3~~ (no change).

Substantiation: The current wording of 8.2.1(3) requires area-wide smoke detection above the ceiling or below RAF as the only solution to detecting smoke in the air circulating in or out of the Information Technology Equipment Area. The proposed wording permits alternate, if not superior, means of smoke detection of that air such as by duct detectors installed at each smoke damper. The committee action of Accept in Principle for 75-49 refers to the committee action of Accept for 75-29, which clarified the requirement to provide smoke dampers for all air duct and air transfer openings through the enclosure. However, 75-29 does not address the means of smoke detection to actuate those dampers, which can be many, and the committee action did not remove the overly limiting language of 8.2.1(3). Also note, the current wording of 8.2.1(3) is not predicated upon the presence of any combustible materials in the above ceiling or below RAF spaces.

Committee Meeting Action: Accept

75-29 Log #26
(8.2.1)

Final Action: Reject

Submitter: Randy Willard, National Reconnaissance Office

Comment on Proposal No: 75-49

Recommendation: Delete subsection (3) in entirety.

8.2.1* Automatic detection systems shall be installed in the following locations:

(1) At the ceiling level throughout the information technology equipment area

(2) Below the raised floor of the information technology equipment area containing cables

~~(3) Above the suspended ceiling and below the raised floor in the information technology equipment area where these spaces are used to recirculate air to other parts of the building~~

Substantiation: The current wording of 8.2.1(3) requires area-wide smoke detection above the ceiling or below RAF as the only solution to detecting smoke in the air circulating in or out of the Information Technology Equipment Area. The committee action of Accept in Principle for 75-49 refers to the committee action of Accept for 75-29, which clarified the requirement to provide smoke dampers for all air duct and air transfer openings through the enclosure. However, 75-29 does not address the means of smoke detection to actuate those dampers, which can be many, and the committee action did not remove the overly limiting language of 8.2.1(3). By deleting subsection (3), the designer would be allowed other methods as permitted by NFPA 90A (see section A.6.3.2) of detecting smoke to close the dampers, such as by activation of the ceiling detectors or activation of duct detectors installed in the air duct systems near the dampers. Also note, the current wording of 8.2.1(3) is not predicated upon the presence of any combustible materials in the above ceiling or below RAF spaces.

Committee Meeting Action: Reject

Committee Statement: Guidance on detection above the suspended ceiling should be provided by this standard.

75-30 Log #4
(8.2.2)

Final Action: Reject

Submitter: James Everitt, Western Regional Fire Code Development Committee

Comment on Proposal No: 75-49

Recommendation: Add text to read as follows:

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.

Add Annex note Where the electrical shut down device is installed it is recommended that the smoke or detection system be cross zoned to prevent false alarms and loss of data and operation.

Substantiation: Same as the note.

Committee Meeting Action: Reject

Committee Statement: The standard does not mandate the electrical shut down to be provided by the fire detection system. The proposed annex note does not refer to any current requirement of the standard and therefore this is inappropriate material.

75-31 Log #CC1
(10.3.8, 10.3.9)

Final Action: Accept

Submitter: Technical Committee on Electronic Computer Systems,

Comment on Proposal No: 75-66

Recommendation: Delete the text for 10.3.2 as proposed in ROP 75-66 and replace it with a new 10.3.8 and 10.3.9 as follows:

10.3.8 Signal wiring and cabling, including optical fiber cables, listed for general-purpose and riser use shall be permitted in an air space below a raised floor.

10.3.9 Electrical power supply cords, up to 4.5 m (15 ft) in length shall be permitted in an air space below a raised floor.

Substantiation: Statement- Section 10.3.2 already exists. The text for 10.3.8 correlates with NFPA 90A section 4.3.11.5.5 in the section on raised floor plenums.

4.3.11.5.5 Raised floors, intermachine cables, electrical wires, listed plenum communication and optical-fiber raceways, and optical-fiber cables in computer/data processing rooms where these rooms are designed and installed in accordance with NFPA 75, Standard for the Protection of Information Technology Equipment, shall be permitted.

NFPA 90A has the primary requirements for combustibles in plenums. It permits NFPA 75, to deviate from the requirement to use plenum rated cables in a raised floor plenum. The revised text for 10.3.8 and 10.3.9 permits non-plenum cables to be used in the raised floor plenum. Referring to NEC Article 645 would be inappropriate because NFPA 90A grants a dispensation from the usual plenum wiring rules to NFPA 75. The alternate wiring rules in NEC Article 645 derive their authority to deviate from NFPA 90A from NFPA 75. It would be circular reasoning if this section referenced Article 645.

Committee Meeting Action: Accept

75-32 Log #CC2
(10.4.2)

Final Action: Accept

Submitter: Technical Committee on Electronic Computer Systems,

Comment on Proposal No: 75-80

Recommendation: Delete section 10.4.2 as suggested by the submitter of the proposal. Other changes made in the ROP will stand.

Substantiation: This is for correlation with committee comment 1 to prevent redundancy.

Committee Meeting Action: Accept

75-33 Log #CC3
(10.4.2)

Final Action: Accept

Submitter: Technical Committee on Electronic Computer Systems,

Comment on Proposal No: 75-83

Recommendation: Delete Sections 10.4.2, 10.4.2.1, and 10.4.2.2

Substantiation: This is to correlate with Committee comment 75-11 (Log #2).

Committee Meeting Action: Accept

75-34 Log #10
(10.4.8 (New))

Final Action: Reject

Submitter: Marcelo M. Hirschler, GBH International

Comment on Proposal No: 75-97

Recommendation: Add new text to read as follows:

10.4.8 Installed Circuits and Cables Identified for Future Use.

10.4.8.1 Circuits and cables shall be permitted to be installed in information technology equipment areas and identified for future use if they comply with 10.4.8.2 and 10.4.8.3.

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

10.4.8.3 The tags shall have the following information:

a. Date identified for future use

b. Date of intended use

c. Information relating to the intended future use

Substantiation: It is useful to include details of what is needed for circuits and cables identified for future use. These circuits and cables (as long as they are installed in information technology equipment areas and are not identified further) will fall within the scope of NFPA 75.

Note that the definition for “abandoned cables” accepted in Proposal 75-7 describes them as those that are “not identified for future use with a tag” and therefore further information is warranted.

Committee Meeting Action: Reject

Committee Statement: The material is outside the scope of NFPA 75.