

***Technical Committee on Electronic Computer Systems
(ELT-AAA)***

MEMORANDUM

DATE: March 21, 2011

TO: Principal and Alternate Members of the Technical Committee on Electronic Computer Systems (ELT-AAA)

FROM: Jon Hart, Associate Fire Protection Engineer/NFPA Staff Liaison

SUBJECT: **AGENDA PACKAGE– NFPA 75 ROC Meeting (Fall 2011)**

Enclosed is the agenda for the Report on Comments (ROC) meeting for NFPA 75, *Standard for the Protection of Information Technology Equipment*, which will be held on **Wednesday, April 13th through Friday, April 15th, 2011 at the Double Tree Hotel-Dallas Market Center, in Dallas, TX**. Please review the attached comments in advance, and if you have alternate suggestions, please come prepared with proposed language and respective substantiation.

If you have any technical questions prior to the meeting, please do not hesitate to contact me at:

Office: (617) 984-7470

Cell: (339) 235-2478

Email: jhart@nfpa.org

For administrative questions, please contact Carol Sances at (617) 984-7951.

I look forward to working with everyone.

Technical Committee on Electronic Computer Systems (ELT-AAA)

NFPA 75 ROC Meeting (Fall 2011)

Wednesday, April 13, 2011, - Friday, April 15, 2011

Double Tree Hotel Dallas Market Center

2015 Market Center Blvd, Dallas, TX

TOPIC AGENDA

Joint Meeting of NFPA Technical Committees TEL-AAA and ELT-AAA

Wednesday April 13, 2011

- 9:30 Purpose of Joint Meeting Ralph Transue**
- 9:45 HVAC Containment Systems David Quirk**
- Present containment concepts (even though the 76 TC will have already been through it)
 - Review the actions taken by the TEL-AAA committee
- 10:15 Increased Use of Combustible Plastics in Data Centers Vinnie DeGiorgio**
- 12 to 15 Power Point slides
- 10:45 Correlation with the National Electrical Code Ralph Transue**
- NFPA preferred practices for correlation
 - Intent of ELT-AAA in its Actions on Proposals
 - Yes, this may also affect **NFPA 76** due to convergence
 - Need for committee proposal(s) to resolve a correlation problem while adhering to the intent of ELT-AAA
 - Three possible solutions related to correlation with the NEC
 - Revise all ROP actions be direct excerpts for the NEC with section citations
 - Replace excerpts and paraphrased excerpts ROP actions with simple, original requirements deemed necessary by the committee for appropriate fire protection.
 - Seek joint consensus with the NEC CMP on ELT-AAA actions
 - Consequences of the three possible solutions
 - Seek consensus on Wednesday so the committee can deal with the NEC correlation issue efficiently on Thursday and Friday.
- 11:30 Depart for Verizon Facility Tour**
- Two groups will tour separately
 - Each tour estimated to be 1-hour

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AGENDA

Thursday, April 14, 2011

1. Call to Order – 8:00 AM
2. Introductions and Attendance
3. Committee Member Status and Update of Membership Roster
4. Review Agenda
5. NFPA Staff Liaison Presentation
6. Chairman Comments
7. Approval of Previous Meeting Minutes
8. Act on Public Comments
9. Adjourn Meeting- TBA

Friday, April 15, 2011

1. Call to Order – 8:00 AM
2. Complete Action on Public Comments
3. Generate Committee Comments
4. Adjourn Meeting – 5:00 pm

Please submit requests for additional agenda items to the chair at least seven days prior to the meeting.

Please notify the chair and staff liaison as soon as possible if you plan to introduce any committee proposals at the meeting.

Distribution by %

3/21/2011

ELT-AAA Electronic Computer Systems

Name	Company	Representation	Class	Office
Keith J. Polasko	US National Security Agency		E	Principal
		Voting Number 1	Percent 3%	
Joseph A. Spataro	Liberty Mutual Property		I	Secretary
Vincent A. Crowder	Fireman's Fund Insurance Company		I	Principal
Bryan K. Powell	XL Global Asset Protection Services	XLGAPS	I	Principal
Mark Suski	Aon/Schirmer Engineering Corporation	AON	I	Principal
		Voting Number 4	Percent 14%	
Robert M. Pikula	Reliable Fire Equipment Company	NAFED	IM	Principal
		Voting Number 1	Percent 3%	
Wayne J. Aho	Xtralis, Inc.		M	Principal
Bernhard G. Bischoff	UTC/Chemetron Fire Systems	FSSA	M	Principal
Timothy Carman	Tyco Fire Suppression & Building Products	TYCO	M	Principal
Thomas G. Deegan	The Viking Group, Inc.	NFSA	M	Principal
Stanley Kaufman	CableSafe, Inc./OFS	SPI	M	Principal
Scott R. Lang	Honeywell International	AFAA	M	Principal
Robert L. Langer	Amerex Corporation	FEMA	M	Principal
David Zolotar	Oracle America, Inc.	ITIC	M	Principal
		Voting Number 8	Percent 28%	
Thomas M. Burke	Underwriters Laboratories Inc.	UL	RT	Principal
		Voting Number 1	Percent 3%	
Ralph E. Transue	The RJA Group, Inc.	RJA	SE	Chair
Alastair R. Brown	Rushbrook Consultants, Ltd.		SE	Principal
Thomas Goonan	Tom Goonan Associates		SE	Principal
Frank W. Peri	Communications Design Corporation		SE	Principal
Henry J. Roux	Roux International Inc.		SE	Principal
Sam P. Salwan	Environmental Systems Design, Inc.		SE	Principal

Distribution by %

Monday, March 21, 2011

ELT-AAA Electronic Computer Systems

<u>Name</u>	<u>Company</u>	<u>Representation</u>	<u>Class</u>	<u>Office</u>
Thomas J. Wysocki	Guardian Services, Inc.		SE	Principal
		Voting Number 7	Percent 24%	
Jeffry T. Dudley	National Aeronautics & Space Administration		U	Principal
Ronald Marts	Telcordia Technologies	ATIS	U	Principal
Stephen McCluer	APC by Schneider Electric		U	Principal
George A. Petrou	JP Morgan Chase & Company		U	Principal
David V. Quirk	Verizon Wireless		U	Principal
Brian P. Rawson	International Business Machines (IBM)		U	Principal
Randy Willard	US Central Intelligence Agency		U	Principal
		Voting Number 7	Percent 24%	
		Total Voting Number 29		

ROP MEETING MINUTES
NFPA 75 Technical Committee on Electronic Computer Systems
Tuesday-Wednesday July 13-14, 2010
Rolf Jensen & Associates HQ; Chicago. IL

1. Call to Order

The meeting of the Technical Committee on Electronic Computer Systems at Rolf Jensen & Associates HQ was called to order by Chair Ralph Transue at 8:00 AM.

2. Introduction of Committee Members and Guests

Self introductions of members and guests were completed. Those present are indicated below:

Attendees

Ralph Transue	The RJA Group
Joseph Spataro	Liberty Mutual
Wayne Aho	Xtralis, Inc.
Bernhard Bischoff	Fire Suppression Systems Association
Vincent Crowder	Fireman's Fund Insurance Company
Thomas Deegan	National Fire Sprinkler Association
Stanley Kaufman	Society of the Plastics Industry, Inc.
Robert Langer	Fire Equipment Manufacturers Association
Ronald Marts	Alliance for Telecommunications Industry
Stephen McCluer	APC by Schneider Electric
George Petrou	JP Morgan Chase & Company
Robert Pikula	National Association of Fire Equipment
Brian Rawson	International Business Machines (IBM)
Sam Salwan	Environmental Systems Design, Inc.
Mark Suski	Aon/Schirmer Engineering Corporation
Thomas Wysocki	Guardian Services, Inc.
David Zolotar	Information Technology Industry Council
Kerry Bell	Underwriters Laboratories Inc.
Gary Girouard	Tyco Fire Suppression & Building Products
William Schwartz	Liberty Mutual Property
Randy Willard	US Central Intelligence Agency
Edward Leedy	member emeritus
Jonathan Levin	NFPA Staff Liaison

Guests

Joshua Evolve	US GSA
Scott Lang	System Sensor
Steven Dryden	Poole Fire Protection
Max McLeod	Siemens

Non-Attendees

Alastair Brown

Thomas Burke

Timothy Carman

Thomas Goonan

Frank Peri

Keith Polasko

Joseph Radakovich

Henry Roux

Win Chalybhat

Richard Puig

Walter Schmoeller

Robert Scholes

Richard Schwartz

Donald Reilly

Rushbrook Consultants, Ltd.

Underwriters Laboratories Inc.

Tyco Fire Suppression & Building Products

Tom Goonan Associates

Communications Design Corporation

US National Security Agency

US Department of Defense

Roux International

Aon/Schirmer Engineering Corporation

Fire Suppression Systems Association

US National Security Agency

Fireman's Fund Insurance Company

JP Morgan Chase & Company

member emeritus

3. Announcements

NFPA Staff Liaison briefly reviewed the purpose of the meeting, agenda for 2-day meeting, and NFPA's process and procedures. Jonathan Levin was introduced as the new Staff Liaison for the committee. Key dates were reviewed and published in the meeting notice as:

Proposal Closing	May 28, 2010
Final date for ROP Meeting	August 27, 2010
Ballots Mailed to TC before ROP Published	September 17, 2010
Comment Closing	December 22, 2010
Final Date for ROC Meeting	March 4, 2011
Ballots Mailed to TC before ROC Published	May 6, 2011
Intent to Make a Motion Closing (NITMAM)	May 20, 2011
Issuance of Consent Document (No NITMAMs)	August 26, 2011
NFPA Annual Meeting (Las Vegas)	October 21, 2011
Issuance of Document with NITMAM	December 13, 2011
	June 2012
	August 9, 2012

4. Chairman Comments

Ralph Transue discussed and presented the following items:

- Discussed new approach to meeting to ensure the Chair generates general consensus for Technical Committee.
- Brief update of NEC – Article 645 – Chapter 10.
- Asked the Technical Committee to consider the following questions during this 2-day meeting:
 - Is the NFPA 75 Standard responsive to the broad range of Information Technology facilities today?
 - Does the Technical Committee need to broaden this Standard to address the Scope and Purpose?

5. Approval of Minutes

The minutes of the A2008 ROC Meeting were approved by the Technical Committee.

6. New Technology Presentation and Discussion

Brian Rawson, International Business Systems (IBM), presented a power point presentation with handout to the Technical Committee for the following topics:

- EPO vs. Data Center / Large Enterprise.
- EPO vs. Small IT Room / Small Enterprise.

Open discussion followed with the Technical Committee members present.

- 7. Act on Public Proposals**
The Technical Committee acted on 112 public proposals and 10 new committee proposals. Throughout the process, the NFPA Staff Liaison kept the committee aware of NFPA Manual of Style requirements. Some of the more extensive topics of debate included: NEC – Article 645 – Chapter 10; application of NFPA 75 and NFPA 76 with the convergence of data and telco processing; hot aisle & cold aisle containment; etc.
- NFPA 75 Task Group (TC members include Ron Marts, Wayne Aho, Brian Rawson, Steve McCluer, and Bob Pikula) was formed to work with the NFPA 76 Task Group to address the hot aisle and cold aisle containment topic.
- 8. Acknowledgement for Win Chaiyabhat**
All Technical Committee members would like to thank Win Chaiyabhat for his years of service and involvement in the NFPA 75 Technical Committee. Win is retiring from AON Risk Services on July 15, 2010.
- 9. Technical Committee Discussion on NFPA 75 – Chapter 10 and NEC - Article 645 (CMP-12)**
- Ralph Transue presented general opening comments on history of NFPA 75 – Chapter 10 and NEC – Article 645 (CMP-12).
- Steve McCluer provided background of work associated with NEC CMP-12 to address Article 645 and meeting with NEC CMP-12.
- Stan Kaufman discussed and presented handouts associated with Fire Protection Concepts and Requirements in Article 645.
- 10. Old Business**
There was no old business.
- 11. New Business**
- Hot aisle / cold aisle ventilation and containment.
- Amendments to NFPA 75 – Chapters 1 & 2.
- 12. Schedule Next Meeting**
Potential dates and locations for the next meeting (ROC) were discussed. Cities suggested include Dallas, TX, Atlanta, GA, and Tampa, FL. NFPA Staff will research possible locations and pole committee members via e-mail for their preferences.
- 13. Adjournment**
The meeting was adjourned at 5:00 PM on July 14, 2010.

Minutes Prepared By: Joe Spataro, NFPA 75 Technical Committee Secretary

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Key Dates for the Fall 2011 Revision Cycle

Proposal Closing Date	May 28, 2010
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Final Date for ROC Meeting	May 6, 2011
Ballots Mailed to TC before	May 20, 2011
Ballots Returned By	June 3, 2011
ROC Published	August 26, 2011
Closing Date for Notice of Intent to Make a Motion (NITMAM)	October 21, 2011
<i>Issuance of Consent Document (No NITMAMs)</i>	<i>December 13, 2011</i>
NFPA Annual Meeting	June 2012
<i>Issuance of Document with NITMAM</i>	<i>August 9, 2012</i>

Technical Committee deadlines are in **bold**.

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Staff Liaison Notice

Note from the Staff Liaison

Dear Technical Committee Members:

We are very pleased that you will be participating in the processing of the 2012 Edition of NFPA 75. Development of the Standard would not be possible without the participation of volunteers like you.

Meeting Preparation

Committee members are strongly encouraged to review the published comments prior to the meeting and to be prepared to act on each item.

Handout materials should be submitted to the chair at least seven days prior to the meeting.

Only one posting of the comments will be made; it will be arranged in section/order and will be pre-numbered. This will be posted to the NFPA 75 Document Information page (www.nfpa.org/75) under the "Next Edition" tab. If you have trouble accessing the website please contact Carol Sances at csances@nfpa.org.

Mandatory Materials:

- Last edition of the standard
- Meeting agenda
- Public proposals/comments
- Committee Officers' Guide (Chairs)
- Roberts' Rules of Order (Chairs; An abbreviated version may be found in the Committee Officer's Guide)

Optional Materials:

- NFPA Annual Directory
- NFPA Manual of Style
- Prepared committee proposals/comments (If applicable)

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Regulations and Guiding Documents

All committee members are expected to behave in accordance with the Guide for the Conduct of Participants in the NFPA Codes and Standards Development Process.

All actions during and following the committee meetings will be governed in accordance with the NFPA Regulations Governing Committee Projects. Failure to comply with these regulations could result in challenges to the standards-making process. A successful challenge on procedural grounds could prevent or delay publication of the document.

The style of the document must comply with the Manual of Style for NFPA Technical Committee Documents.

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General Procedures for Meetings

- Use of tape recorders or other means capable of producing verbatim transcriptions of any NFPA Committee Meeting is not permitted.
- Attendance at all NFPA Committee Meetings is open. All guests must sign in and identify their affiliation.
- Participation in NFPA Committee Meetings is generally limited to committee members and NFPA staff. Participation by guests is limited to individuals, who have received prior approval from the chair to address the committee on a particular item, or who wish to speak regarding public proposals or comments that they submitted.
- The chairman reserves the right to limit the amount of time available for any presentation.
- No interviews will be allowed in the meeting room at any time, including breaks.
- All attendees are reminded that formal votes of committee members will be secured by letter ballot. Voting at this meeting is used to establish a sense of agreement, but only the results of the formal letter ballot will determine the official action of the committee.
- Note to Special Experts: Particular attention is called to Section 3.3(e) of the NFPA Guide for the Conduct of Participants in the NFPA Codes and Standards Development Process in the NFPA Directory. This section requires committee members to declare any interest they may represent, other than their official designation as shown on the committee roster. This typically occurs when a special expert is retained by and represents another interest category on a particular subject. If such a situation exists on a specific issue or issues, the committee member shall declare those interests to the committee and refrain from voting on any action relating to those issues.
- Smoking is not permitted at NFPA Committee Meetings.

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Committee Actions

All public proposals and comments must be acted upon by the committee. The following actions are permitted by the Regulations Governing Committee Projects for disposition of comments.

Accept - The committee accepts the proposal or comment. Only editorial changes such as paragraph and section numbering, and corrections to spelling, capitalization, and hyphenation may be made.

Reject - The committee rejects the proposal or comment entirely. The committee may reject any comment that is incomplete, per the NFPA Regulations Governing Committee Projects.

Accept in Principle - The committee accepts the proposal or comment with revision. The committee action must indicate the specific revisions to the proposed content, and the locations of each revision within the proposed wording or the document.

Accept in Part - The committee accepts part of the proposal or comment and rejects the remainder. Only editorial changes such as paragraph and section numbering, and corrections to spelling, capitalization, and hyphenation may be made to the accepted portion. The committee action must indicate the specific parts that were accepted and rejected.

Accept in Principle in Part - The committee accepts part of the proposal or comment with revision and rejects the remainder. The committee action must indicate the specific parts that were accepted and rejected, as well as the nature and location of each revision.

Hold (Comment Stage Only) – The committee holds the comment to be considered as a proposal during the next revision cycle. One of the following conditions must be met:

- (a) The comment introduces a concept that has not had public review by being included in a related proposal as published in the Report on Proposals.
- (b) The comment would change the text proposed by the TC to the point that the TC would have to restudy the text of the Report on Proposals or other affected parts of the Document.
- (c) The comment would propose something that could not be properly handled within the time frame for processing the report.

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Committee Statements

Any proposal or comment that is "Rejected", "Accepted in Principle", "Accepted in Part", "Accepted in Principle in Part", or "Held" must include a committee statement, preferably of a technical nature, that provides the reasons for the action.

A committee statement is not required for any proposal or comment that is "Accepted", but should be included when the committee's reasoning differs from the substantiation provided by the submitter.

75- Log #14
(1.3)

Final Action:

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 Comment 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.

75- Log #19
(1.3)

Final Action:

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.

75- Log #6
(1.3.1)

Final Action:

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.

75- Log #12
(1.3.1)

Final Action:

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.

75- Log #29
(1.3.1)

Final Action:

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.

75- Log #11
(2.3.2)

Final Action:

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.

75- Log #8
(3.3.x.2 Abandoned Cables (New))

Final Action:

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.

75- Log #9 Final Action:
(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.

75- Log #7
(3.3.x.7 Raceway and A.3.3.x.7 (New))

Final Action:

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.

75- Log #22
(3.3.12 Noncombustible)

Final Action:

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.

75- Log #2
(3.3.16 Support Equipment and A.3.3.16)

Final Action:

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.

75- Log #27
(3.4)

Final Action:

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.

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

Final Action:

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.

75- Log #15
(4.2)

Final Action:

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 Comment 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.

75- Log #3
(4.2.1.2)

Final Action:

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.

75- Log #18
(5.5.2, 5.5.2.1, and 5.5.2.2)

Final Action:

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.

75- Log #17
(5.5.3 and A.5.5.3)

Final Action:

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.

75- Log #28
(5.7 (New))

Final Action:

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 combustibile 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.

75- Log #23
(6.1)

Final Action:

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.

75- Log #1
(8.1)

Final Action:

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.

75- Log #13
(8.1.1.2)

Final Action:

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.

75- Log #16
(8.1.1.2)

Final Action:

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).

75- Log #21
(8.1.1.2)

Final Action:

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.

75- Log #24
(8.1.1.2)

Final Action:

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~~ 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.

75- Log #5
(8.1.3)

Final Action:

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

75- Log #25
(8.2.1)

Final Action:

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.

75- Log #26
(8.2.1)

Final Action:

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.

75- Log #4
(8.2.2)

Final Action:

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.

75- Log #10
(10.4.8 (New))

Final Action:

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.