

2011 Fall Revision Cycle

Report on Comments

A compilation of NFPA® Technical Committee Reports on Comments for the 2011 Fall Revision Cycle.

Notice of Intent to Make a Motion (NITMAM) deadline: October 21, 2011.

NOTE: The proposed NFPA documents addressed in the Report on Proposals (ROP) and in this follow-up Report on Comments (ROC) will only be presented for action at the NFPA June 2012 Association Technical Meeting to be held June 11–14, 2012, at the Mandalay Bay Convention Center in Las Vegas, NV, when proper Amending Motions have been submitted to the NFPA by the deadline of October 21, 2011. Documents that receive no motions will not be presented at the meeting and instead will be forwarded directly to the Standards Council for action on issuance. For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA documents, check the NFPA website (www.nfpa.org) or contact NFPA Standards Administration.



National Fire Protection Association®

1 BATTERYMARCH PARK, QUINCY, MA 02169-7471

Information on NFPA Codes and Standards Development

I. Applicable Regulations. The primary rules governing the processing of NFPA documents (codes, standards, recommended practices, and guides) are the *NFPA Regulations Governing Committee Projects (Regs)*. Other applicable rules include *NFPA Bylaws*, *NFPA Technical Meeting Convention Rules*, *NFPA Guide for the Conduct of Participants in the NFPA Standards Development Process*, and the *NFPA Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council*. Most of these rules and regulations are contained in the *NFPA Directory*. For copies of the *Directory*, contact Codes and Standards Administration at NFPA Headquarters; all these documents are also available on the NFPA website at “www.nfpa.org.”

The following is general information on the NFPA process. All participants, however, should refer to the actual rules and regulations for a full understanding of this process and for the criteria that govern participation.

II. Technical Committee Report. The Technical Committee Report is defined as “the Report of the Technical Committee and Technical Correlating Committee (if any) on a document consisting of the ROP and ROC.” A Technical Committee Report consists of the Report on Proposals (ROP), as modified by the Report on Comments (ROC), published by the Association.

III. Step 1: Report on Proposals (ROP). The ROP is defined as “a report to the Association on the actions taken by Technical Committees and/or Technical Correlating Committees, accompanied by a ballot statement and one or more proposals on text for a new document or to amend an existing document.” Any objection to an action in the ROP must be raised through the filing of an appropriate Comment for consideration in the ROC or the objection will be considered resolved.

IV. Step 2: Report on Comments (ROC). The ROC is defined as “a report to the Association on the actions taken by Technical Committees and/or Technical Correlating Committees accompanied by a ballot statement and one or more comments resulting from public review of the Report on Proposals (ROP).” The ROP and the ROC together constitute the Technical Committee Report. Any outstanding objection following the ROC must be raised through an appropriate Amending Motion at the Association Technical Meeting or the objection will be considered resolved.

V. Step 3a: Action at Association Technical Meeting. Following the publication of the ROC, there is a period during which those wishing to make proper Amending Motions on the Technical Committee Reports must signal their intention by submitting a Notice of Intent to Make a Motion. Documents that receive notice of proper Amending Motions (Certified Amending Motions) will be presented for action at the annual June Association Technical Meeting. At the meeting, the NFPA membership can consider and act on these Certified Amending Motions as well as Follow-up Amending Motions, that is, motions that become necessary as a result of a previous successful Amending Motion. (See 4.6.2 through 4.6.9 of *Regs* for a summary of the available Amending Motions and who may make them.) Any outstanding objection following action at an Association Technical Meeting (and any further Technical Committee consideration following successful Amending Motions, see *Regs* at 4.7) must be raised through an appeal to the Standards Council or it will be considered to be resolved.

VI. Step 3b: Documents Forwarded Directly to the Council. Where no Notice of Intent to Make a Motion (NITMAM) is received and certified in accordance with the Technical Meeting Convention Rules, the document is forwarded directly to the Standards Council for action on issuance. Objections are deemed to be resolved for these documents.

VII. Step 4a: Council Appeals. Anyone can appeal to the Standards Council concerning procedural or substantive matters related to the development, content, or issuance of any document of the Association or on matters within the purview of the authority of the Council, as established by the *Bylaws* and as determined by the Board of Directors. Such appeals must be in written form and filed with the Secretary of the Standards Council (see 1.6 of *Regs*). Time constraints for filing an appeal must be in accordance with 1.6.2 of the *Regs*. Objections are deemed to be resolved if not pursued at this level.

VIII. Step 4b: Document Issuance. The Standards Council is the issuer of all documents (see Article 8 of *Bylaws*). The Council acts on the issuance of a document presented for action at an Association Technical Meeting within 75 days from the date of the recommendation from the Association Technical Meeting, unless this period is extended by the Council (see 4.8 of *Regs*). For documents forwarded directly to the Standards Council, the Council acts on the issuance of the document at its next scheduled meeting, or at such other meeting as the Council may determine (see 4.5.6 and 4.8 of *Regs*).

IX. Petitions to the Board of Directors. The Standards Council has been delegated the responsibility for the administration of the codes and standards development process and the issuance of documents. However, where extraordinary circumstances requiring the intervention of the Board of Directors exist, the Board of Directors may take any action necessary to fulfill its obligations to preserve the integrity of the codes and standards development process and to protect the interests of the Association. The rules for petitioning the Board of Directors can be found in the *Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council* and in 1.7 of the *Regs*.

X. For More Information. The program for the Association Technical Meeting (as well as the NFPA website as information becomes available) should be consulted for the date on which each report scheduled for consideration at the meeting will be presented. For copies of the ROP and ROC as well as more information on NFPA rules and for up-to-date information on schedules and deadlines for processing NFPA documents, check the NFPA website (www.nfpa.org) or contact NFPA Codes & Standards Administration at (617) 984-7246.

**2011 Fall Revision Cycle ROC Contents
by NFPA Numerical Designation**

Note: Documents appear in numerical order.

NFPA No.	Type Action	Title	Page No.
59A	P	Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG).....	59A-1
75	P	Standard for the Protection of Information Technology Equipment..... (To be retitled as Standard for the Fire Protection of Information Technology Equipment)	75-1
76	P	Standard for the Fire Protection of Telecommunications Facilities.....	76-1
150	P	Standard on Fire and Life Safety in Animal Housing Facilities.....	150-1
170	P	Standard for Fire Safety and Emergency Symbols.....	170-1
252	P	Standard Methods of Fire Tests of Door Assemblies.....	252-1
269	P	Standard Test Method for Developing Toxic Potency Data for Use in Fire Hazard Modeling.....	269-1
271	P	Standard Method of Test for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter.....	271-1
275	P	Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used Over Foam Plastic Insulation..... (To be retitled as Standard Method of Fire Tests for the Evaluation of Thermal Barriers)	275-1
285	P	Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.....	285-1
497	P	Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.....	497-1
499	P	Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.....	499-1
550	P	Guide to the Fire Safety Concepts Tree.....	550-1
557	N	Standard for Determination of Fire Load for Use in Structural Fire Protection Design.....	557-1
655	P	Standard for Prevention of Sulfur Fires and Explosions.....	655-1
1037	P	Standard for Professional Qualifications for Fire Marshal.....	1037-1
1402	P	Guide to Building Fire Service Training Centers.....	1402-1
1403	P	Standard on Live Fire Training Evolutions.....	1403-1
1906	P	Standard for Wildland Fire Apparatus.....	1906-1
1911	P	Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus.....	1911-1
1951	P	Standard on Protective Ensembles for Technical Rescue Incidents.....	1951-1
1971	P	Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting.....	1971-1
1983	P	Standard on Life Safety Rope and Equipment for Emergency Services.....	1983-1
1991	P	Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies..... (To be retitled as Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies and CBRN Terrorism Incidents)	1991-1
1992	P	Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies.....	1992-1
1994	P	Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents.....	1994-1

TYPES OF ACTION

P Partial Revision

N New Document

R Reconfirmation

W Withdrawal

**2011 Fall Revision Cycle ROC
Committees Reporting**

		Type Action	Page No.
Animal Housing Facilities			
150	Standard on Fire and Life Safety in Animal Housing Facilities	P	150-1
Electrical Equipment in Chemical Atmospheres			
497	Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas	P	497-1
499	Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas	P	499-1
Electronic Computer Systems			
75	Standard for the Protection of Information Technology Equipment	P	75-1
Fire and Emergency Services Protective Clothing and Equipment			
Hazardous Materials Protective Clothing and Equipment			
1991	Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies	P	1991-1
1992	Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies	P	1992-1
1994	Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents	P	1994-1
Special Operations Protective Clothing and Equipment			
1951	Standard on Protective Ensembles for Technical Rescue Incidents	P	1951-1
1983	Standard on Life Safety Rope and Equipment for Emergency Services	P	1983-1
Structural and Proximity Fire Fighting Protective Clothing and Equipment			
1971	Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting	P	1971-1
Fire Department Apparatus			
1906	Standard for Wildland Fire Apparatus	P	1906-1
1911	Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus	P	1911-1
Fire Risk Assessment Methods			
550	Guide to the Fire Safety Concepts Tree	P	550-1
Fire Safety and Emergency Symbols			
170	Standard for Fire Safety and Emergency Symbols	P	170-1
Fire Service Training			
1402	Guide to Building Fire Service Training Centers	P	1402-1
1403	Standard on Live Fire Training Evolutions	P	1403-1
Fire Tests			
252	Standard Methods of Fire Tests of Door Assemblies	P	252-1
269	Standard Test Method for Developing Toxic Potency Data for Use in Fire Hazard Modeling	P	269-1
271	Standard Method of Test for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter	P	271-1
275	Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used Over Foam Plastic Insulation	P	275-1
285	Standard Fire Test Method for Evaluation of Fire Propagation Characteristic of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components	P	285-1
Handling and Conveying of Dusts, Vapors, and Gases			
655	Standard for Prevention of Sulfur Fires and Explosions	P	655-1
Hazard and Risk of Contents and Furnishings			
557	Standard for Determination of Fire Load for Use in Structural Fire Protection Design	N	557-1
Liquefied Natural Gas			
59A	Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)	P	59A-1
Professional Qualifications			
Fire Marshal Professional Qualifications			
1037	Standard for Professional Qualifications for Fire Marshal	P	1037-1
Telecommunications			
76	Standard for the Fire Protection of Telecommunications Facilities	P	76-1

COMMITTEE MEMBER CLASSIFICATIONS^{1,2,3,4}

The following classifications apply to Committee members and represent their principal interest in the activity of the Committee.

1. M Manufacturer: A representative of a maker or marketer of a product, assembly, or system, or portion thereof, that is affected by the standard.
2. U User: A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.
3. IM Installer/Maintainer: A representative of an entity that is in the business of installing or maintaining a product, assembly, or system affected by the standard.
4. L Labor: A labor representative or employee concerned with safety in the workplace.
5. RT Applied Research/Testing Laboratory: A representative of an independent testing laboratory or independent applied research organization that promulgates and/or enforces standards.
6. E Enforcing Authority: A representative of an agency or an organization that promulgates and/or enforces standards.
7. I Insurance: A representative of an insurance company, broker, agent, bureau, or inspection agency.
8. C Consumer: A person who is or represents the ultimate purchaser of a product, system, or service affected by the standard, but who is not included in (2).
9. SE Special Expert: A person not representing (1) through (8) and who has special expertise in the scope of the standard or portion thereof.

NOTE 1: "Standard" connotes code, standard, recommended practice, or guide.

NOTE 2: A representative includes an employee.

NOTE 3: While these classifications will be used by the Standards Council to achieve a balance for Technical Committees, the Standards Council may determine that new classifications of member or unique interests need representation in order to foster the best possible Committee deliberations on any project. In this connection, the Standards Council may make such appointments as it deems appropriate in the public interest, such as the classification of "Utilities" in the National Electrical Code Committee.

NOTE 4: Representatives of subsidiaries of any group are generally considered to have the same classification as the parent organization.

Documents Without Comments

The documents listed below appeared in the 2011 Fall Revision Cycle *Report on Proposals* but did not receive comments. Therefore, no reports of these documents appear in this *Report on Comments*.

115	P	<i>Standard for Laser Fire Protection</i>
257	P	<i>Standard on Fire Test for Window and Glass Block Assemblies</i>
268	P	<i>Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source</i>
287	P	<i>Standard Test Methods for Measurement of Flammability of Materials in Cleanrooms Using a Fire Propagation Apparatus (FPA)</i>
288	P	<i>Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance-Rated Floor Systems</i>
385	P	<i>Standard for Tank Vehicles for Flammable and Combustible Liquids</i>
560	W	<i>Standard for the Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation</i>
1041	P	<i>Standard for Fire Service Instructor Professional Qualifications</i>
1051	P	<i>Standard for Wildland Fire Fighter Professional Qualifications</i>
1401	P	<i>Recommended Practice for Fire Service Training Reports and Records</i>

The following documents have changed reporting cycle as indicated below:

NFPA 285

The Technical Committee Report on NFPA 285, *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components*, is included in this *Report on Comments*. The document originally reported in the F2010 *Report on Proposals* but was moved to the F2011 revision cycle and therefore appears in this *Report on Comments*. For convenience, the F2010 *Report on Proposals* is reprinted before the comments.

NFPA 1005

The Technical Committee Report on NFPA 1005, *Standard for Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters*, is not included in this *Report on Comments* for action in this revision cycle. The document will instead report in the A2013 *Report on Proposals*.

NFPA 1061

The Technical Committee Report on NFPA 1061, *Standard for Professional Qualifications for Public Safety Telecommunicator*, is not included in this *Report on Comments* for action in this revision cycle. The document will instead report in the F2012 *Report on Proposals*.

NFPA 1961

The Technical Committee Report on NFPA 1961, *Standard on Fire Hose*, is not included in this *Report on Comments* for action in this revision cycle. The document will instead report in the A2012 *Report on Comments*.

Key to Comment Headings

The first line of every proposal includes the following information:

Document No.	Proposal No.	Log No.	Paragraph Reference	Committee Action
101	6	38	3.4	Accept

Example: 101-6 Log #38 **Final Action: Accept (3.4)**

**FORM FOR FILING NOTICE OF INTENT TO MAKE A MOTION (NITMAM)
AT AN ASSOCIATION TECHNICAL MEETING
FALL 2011 REVISION CYCLE
FINAL DATE FOR RECEIPT OF NITMAM: 5:00 pm EDST, October 21, 2011**

If you have questions about filling out or filing the NITMAM, please contact the Codes and Standards Administration at 617-984-7249

For further information on the Codes- and Standards-Making Process see the NFPA website (www.nfpa.org)

FOR OFFICE USE ONLY

Log #: _____

Date Rec'd: _____

Date 8/10/2005 Name John B. Smith Tel. No. 617-555-1212

Company or Affiliation John B. Smith Consulting Email Address _____

Street Address 9 Seattle Street City Seattle State WA Zip 02255

1. (a) NFPA Document (include Number and Title) National Fire Alarm Code/NFPA 72 1999ed
(b) Proposal or Comment Number 72-5
(c) Section/Paragraph 1.5.8.1

2. Motion to be made. Please check one (See also 4.6 of the Regulations Governing Committee Projects):

(a) Proposal

- (1) Accept. _____ (2) Accept an Identifiable Part.*
_____ (3) Accept as modified by the TC. _____ (4) Accept an Identifiable Part as modified by TC.*

(b) Comment

- _____ (1) Accept. _____ (2) Accept an Identifiable Part. * _____ (3) Accept as modified by the TC.
_____ (4) Accept an Identifiable Part as modified by TC.* _____ (5) Reject _____ (6) Reject an Identifiable Part.*

(c) Return Technical Committee Report for Further Study

- _____ (1) Return entire Report. _____ (2) Return a portion of a Report in the form of a proposal and related comment(s).
_____ (3) Return a portion of a Report in the form of identifiable part(s) of a proposal and related comments(s). (Identify the specific portion of the proposal and the related comments below)*

* Clearly identify the Identifiable Part(s) indicated above (use separate sheet if required).

3. I am entitled to make this motion in accordance with 4.6.8 of the Regulations Governing Committee Projects, as follows [check (a), (b), or (c)]:

(a) This motion may be made by the original submitter or their designated representative, and I am the [if you check (a) indicate one of the following]:

- I am the original submitter of the proposal or comment, or
 I am the submitter's designated representative (attach written authorization signed by the original submitter)

(b) _____ This motion may be made by a Technical Committee Member and I am a Member of the responsible Technical Committee.

(c) _____ This motion may be made by anyone.

(Form continued on next page)

**FORM FOR FILING NOTICE OF INTENT TO MAKE A MOTION (NITMAM)
 AT AN ASSOCIATION TECHNICAL MEETING
 2011 FALL REVISION CYCLE
 FINAL DATE FOR RECEIPT OF NITMAM: 5:00 pm EDST, October 21, 2011**

If you have questions about filling out or filing the NITMAM, please contact the
 Codes and Standards Administration at 617-984-7249

For further information on the Codes- and Standards-Making Process, see the NFPA
 website (www.nfpa.org)

FOR OFFICE USE ONLY

Log #: _____

Date Rec'd: _____

Date _____ Name _____ Tel. No. _____

Company or Affiliation _____ Email Address _____

Street Address _____ City _____ State _____ Zip _____

1. (a) NFPA Document (include Number and Title) _____
- (b) Proposal or Comment Number _____
- (c) Section/Paragraph _____

2. Motion to be made. Please check one: (See also 4-6 of the Regulations Governing Committee Projects)

(a) Proposal

- _____ (1) Accept. _____ (2) Accept an Identifiable Part.*
- _____ (3) Accept as modified by the TC. _____ (4) Accept an Identifiable Part as modified by TC.*

(b) Comment

- _____ (1) Accept. _____ (2) Accept an Identifiable Part.* _____ (3) Accept as modified by the TC.
- _____ (4) Accept an Identifiable Part as modified by TC.* _____ (5) Reject _____ (6) Reject an Identifiable Part.*

(c) Return Technical Committee Report for Further Study

- _____ (1) Return entire Report. _____ (2) Return a portion of a Report in the form of a proposal and related comment(s).
- _____ (3) Return a portion of a Report in the form of identifiable part(s) of a proposal and related comments (s). (Identify the specific portion of the proposal and the related comments below)*

* Clearly identify the Identifiable Part(s) indicated above (use separate sheet if required).

3. I am entitled to make this motion in accordance with 4.6.8 of the Regulations Governing Committee Projects, as follows: (check (a), (b), or (c).

(a) _____ This motion may be made by the original submitter or their designated representative, and I am the (if you check (a) indicate one of the following):

- ___ I am the Original submitter, or
- ___ I am the submitter's designated representative (attach written authorization signed by the original submitter), or

(b) _____ This motion may be made by a Technical Committee Member and I am a Member of the responsible Technical Committee.

(c) _____ This motion may be made by anyone.

(Form continued on next page)

NITMAM form (continued)

4. Comments or Clarification (optional): This NITMAM will be reviewed by a Motions Committee. In addition to determining whether your Amending Motion is proper, the Committee may take other actions as described in 2.3 of the Technical Meeting Convention Rules as follows:

Restating and Grouping of Motions. Upon request or on its own initiative, and in consultation with the mover(s), the Motions Committee may: (a) restate an Amending Motion to facilitate the making of a proper motion or to clarify the intent of the mover; and (b) group Amending Motions that are dependent on one another into a single Amending Motion. Dependent motions are motions that the mover(s) wish to be considered by the assembly and voted on as single up or down package. In addition to the foregoing, the Motions Committee may take such other actions or make such other recommendations as will facilitate the fair and efficient consideration of amending.

The NFPA Staff may contact you to clarify your motion or to consult on the permitted actions in 2.3. If you have any comments, suggestions, or requests of the Motions Committee as it reviews your NITMAM and considers actions permitted in 2.3, please provide them below. (Use additional sheet if necessary):

Name (please print): _____

Signature (Required) _____

(Note: This NITMAM will be reviewed, and if proper, your Amending Motion will be certified in accordance with the Technical Meeting Convention Rules and posted on the NFPA website by November 18, 2011. Documents that have Certified Amending Motions will be considered at the June 2012 Annual Meeting Technical Committee Report. In order to have your Certified Amending Motion considered at that meeting, you must appear, sign in, and make the motion as prescribed in the Convention Rules).

PLEASE USE A SEPARATE NITMAM FORM FOR EACH AMENDING MOTION YOU WISH TO MAKE

Mail to: Secretary, Standards Council, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471
NFPA Fax: (617) 770-3500 • Email: NITMAM@nfpa.org

Sequence of Events Leading to Issuance of an NFPA Committee Document

Step 1 Call for Proposals

▼ Proposed new document or new edition of an existing document is entered into one of two yearly revision cycles, and a Call for Proposals is published.

Step 2 Report on Proposals (ROP)

▼ Committee meets to act on Proposals, to develop its own Proposals, and to prepare its Report.

▼ Committee votes by written ballot on Proposals. If two-thirds approve, Report goes forward. Lacking two-thirds approval, Report returns to Committee.

▼ Report on Proposals (ROP) is published for public review and comment.

Step 3 Report on Comments (ROC)

▼ Committee meets to act on Public Comments to develop its own Comments, and to prepare its report.

▼ Committee votes by written ballot on Comments. If two-thirds approve, Report goes forward. Lacking two-thirds approval, Report returns to Committee.

▼ Report on Comments (ROC) is published for public review.

Step 4 Association Technical Meeting

▼ "*Notices of intent to make a motion*" are filed, are reviewed, and valid motions are certified for presentation at the Association Technical Meeting. ("Consent Documents" that have no certified motions bypass the Association Technical Meeting and proceed to the Standards Council for issuance.)

▼ NFPA membership meets each June at the Association Technical Meeting and acts on Technical Committee Reports (ROP and ROC) for documents with "certified amending motions."

▼ Committee(s) vote on any amendments to Report approved at NFPA Annual Membership Meeting.

Step 5 Standards Council Issuance

▼ Notification of intent to file an appeal to the Standards Council on Association action must be filed within 20 days of the NFPA Annual Membership Meeting.

▼ Standards Council decides, based on all evidence, whether or not to issue document or to take other action, including hearing any appeals.

The Association Technical Meeting

The process of public input and review does not end with the publication of the ROP and ROC. Following the completion of the Proposal and Comment periods, there is yet a further opportunity for debate and discussion through the Association Technical Meeting that takes place at the NFPA Annual Meeting.

The Association Technical Meeting provides an opportunity for the final Technical Committee Report (i.e., the ROP and ROC) on each proposed new or revised code or standard to be presented to the NFPA membership for the debate and consideration of motions to amend the Report. The specific rules for the types of motions that can be made and who can make them are set forth in NFPA's rules, which should always be consulted by those wishing to bring an issue before the membership at an Association Technical Meeting. The following presents some of the main features of how a Report is handled.

The Filing of a Notice of Intent to Make a Motion. Before making an allowable motion at an Association Technical Meeting, the intended maker of the motion must file, in advance of the session, and within the published deadline, a Notice of Intent to Make a Motion. A Motions Committee appointed by the Standards Council then reviews all notices and certifies all amending motions that are proper. The Motions Committee can also, in consultation with the makers of the motions, clarify the intent of the motions and, in certain circumstances, combine motions that are dependent on each other together so that they can be made in one single motion. A Motions Committee report is then made available in advance of the meeting listing all certified motions. Only these Certified Amending Motions, together with certain allowable Follow-Up Motions (that is, motions that have become necessary as a result of previous successful amending motions) will be allowed at the Association Technical Meeting.

Consent Documents. Often there are codes and standards up for consideration by the membership that will be noncontroversial and no proper Notices of Intent to Make a Motion will be filed. These "Consent Documents" will bypass the Association Technical Meeting and head straight to the Standards Council for issuance. The remaining documents are then forwarded to the Association Technical Meeting for consideration of the NFPA membership.

What Amending Motions Are Allowed. The Technical Committee Reports contain many Proposals and Comments that the Technical Committee has rejected or revised in whole or in part. Actions of the Technical Committee published in the ROP may also eventually be rejected or revised by the Technical Committee during the development of its ROC. The motions allowed by NFPA rules provide the opportunity to propose amendments to the text of a proposed code or standard based on these published Proposals, Comments, and Committee actions. Thus, the list of allowable motions include motions to accept Proposals and Comments in whole or in part as submitted or as modified by a Technical Committee action. Motions are also available to reject an accepted Comment in whole or part. In addition, Motions can be made to return an entire Technical Committee Report or a portion of the Report to the Technical Committee for further study.

The NFPA Annual Meeting, also known as the NFPA Conference & Expo, takes place in June of each year. A second Fall membership meeting was discontinued in 2004, so the NFPA Technical Committee Report Session now runs once each year at the Annual Meeting in June.

Who Can Make Amending Motions. NFPA rules also define those authorized to make amending motions. In many cases, the maker of the motion is limited by NFPA rules to the original submitter of the Proposal or Comment or his or her duly authorized representative. In other cases, such as a Motion to Reject an accepted Comment, or to Return a Technical Committee Report or a portion of a Technical Committee Report for Further Study, anyone can make these motions. For a complete explanation, the NFPA Regs should be consulted.

Action on Motions at the Association Technical Meeting. In order to actually make a Certified Amending Motion at the Association Technical Meeting, the maker of the motion must sign in at least an hour before the session begins. In this way a final list of motions can be set in advance of the session. At the session, each proposed document up for consideration is presented by a motion to adopt the Technical Committee Report on the document. Following each such motion, the presiding officer in charge of the session opens the floor to motions on the document from the final list of Certified Amending Motions followed by any permissible Follow-Up Motions. Debate and voting on each motion proceeds in accordance with NFPA rules. NFPA membership is not required in order to make or speak to a motion, but voting is limited to NFPA members who have joined at least 180 days prior to the Association Technical Meeting and have registered for the meeting. At the close of debate on each motion, voting takes place, and the motion requires a majority vote to carry. In order to amend a Technical Committee Report, successful amending motions must be confirmed by the responsible Technical Committee, which conducts a written ballot on all successful amending motions following the meeting and prior to the document being forwarded to the Standards Council for issuance.

Standards Council Issuance

One of the primary responsibilities of the NFPA Standards Council, as the overseer of the NFPA codes and standards development process, is to act as the official issuer of all NFPA codes and standards. When it convenes to issue NFPA documents, it also hears any appeals related to the document. Appeals are an important part of assuring that all NFPA rules have been followed and that due process and fairness have been upheld throughout the codes and standards development process. The Council considers appeals both in writing and through the conduct of hearings at which all interested parties can participate. It decides appeals based on the entire record of the process as well as all submissions on the appeal. After deciding all appeals related to a document before it, the Council, if appropriate, proceeds to issue the document as an official NFPA code or standard. Subject only to limited review by the NFPA Board of Directors, the decision of the Standards Council is final, and the new NFPA code or standard becomes effective twenty days after Standards Council issuance.

Report of the Committee on

Electronic Computer Systems

Ralph E. Transue, *Chair*
The RJA Group, Inc., IL [SE]

Joseph A. Spataro, *Secretary*
Liberty Mutual Commercial Markets, NY [I]

Wayne J. Aho, Xtralix, Inc., MA [M]
Bernhard G. Bischoff, UTC/Chemetron Fire Systems, IL [M]
 Rep. Fire Suppression Systems Association
Alastair R. Brown, Rushbrook Consultants, Ltd., Scotland [SE]
Thomas M. Burke, Underwriters Laboratories Inc., CA [RT]
Timothy Carman, Tyco Fire Suppression & Building Products, WI [M]
Vincent A. Crowder, Fireman's Fund Insurance Company, GA [I]
Thomas G. Deegan, The Viking Group, Inc., MI [M]
 Rep. National Fire Sprinkler Association
Jeffry T. Dudley, National Aeronautics & Space Administration, FL [U]
Thomas Goonan, Tom Goonan Associates, VA [SE]
Stanley Kaufman, CableSafe, Inc./OFS, GA [M]
 Rep. Society of the Plastics Industry, Inc.
Scott R. Lang, Honeywell International, IL [M]
 Rep. Automatic Fire Alarm Association, Inc.
Robert L. Langer, Amerex Corporation, AL [M]
 Rep. Fire Equipment Manufacturers' Association
Ronald Marts, Telcordia Technologies, NJ [U]
 Rep. Alliance for Telecommunications Industry Solutions
Stephen McCluer, APC by Schneider Electric, TX [U]
George A. Petrou, JP Morgan Chase & Company, NJ [U]
Robert M. Pikula, Reliable Fire Equipment Company, IL [IM]
 Rep. National Association of Fire Equipment Distributors
Keith J. Polasko, US National Security Agency, MD [E]
Bryan K. Powell, XL Global Asset Protection Services, VA [I]
David V. Quirk, Verizon Wireless, NJ [U]
Brian P. Rawson, International Business Machines (IBM), NY [U]
Henry J. Roux, Roux International Inc., PA [SE]
Sam P. Salwan, Environmental Systems Design, Inc., IL [SE]
Mark Suski, Aon Fire Protection Engineering Corporation, IL [I]
Randy Willard, US Central Intelligence Agency, MD [U]
Thomas J. Wysocki, Guardian Services, Inc., IL [SE]
David Zolotar, Oracle America, Inc., CO [M]
 Rep. Information Technology Industry Council

Alternates

Thomas L. Allen, The RJA Group, MD [SE]
 (Alt. to Ralph E. Transue)
Kerry M. Bell, Underwriters Laboratories Inc., IL [RT]
 (Alt. to Thomas M. Burke)
Gary Girouard, Tyco/SimplexGrinnell, MA [M]
 (Alt. to Timothy Carman)
Max McLeod, Siemens Industry, Inc., AL [M]
 (Alt. to Scott R. Lang)
Richard P. Puig, Fike Corporation, TX [M]
 (Alt. to Bernhard G. Bischoff)
Joseph Radakovich, Jr., US Department of Defense, VA [U]
 (Alt. to Randy Willard)
Walter H. Schmoeller, US National Security Agency, MD [E]
 (Alt. to Keith J. Polasko)
Robert V. Scholes, Fireman's Fund Insurance Company, CA [I]
 (Alt. to Vincent A. Crowder)
William T. Schwartz, Liberty Mutual Commercial Markets, GA [I]
 (Alt. to Joseph A. Spataro)
Richard B. Swartz, JP Morgan Chase & Company, NY [U]
 (Alt. to George A. Petrou)
Edward D. Leedy, Naperville, IL [SE]
 (Member Emeritus)
Donald E. Reilly, Staten Island, NY [I]
 (Member Emeritus)

Staff Liaison: **Jonathan Hart**

Committee Scope: This Committee shall have primary responsibility for documents on the protection of electronic computer equipment, components, and associated records.

This list represents the membership at the time the Committee was balloted on the text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the front of this book.

This portion of the Technical Committee Report of the Committee on **Electronic Computer Systems** is presented for adoption.

This Report on Comments was prepared by the **Technical Committee on Electronic Computer Systems**, and documents its action on the comments received on its Report on Proposals on NFPA 75, **Standard for the Protection of Information Technology Equipment**, 2009 edition, as published in the Report on Proposals for the 2011 Fall Revision Cycle.

This Report on Comments has been submitted to letter ballot of the **Technical Committee on Electronic Computer Systems**, which consists of 28 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

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.
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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.
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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 75-2 (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
Number Eligible to Vote: 28
Ballot Results: Affirmative: 24 Negative: 1
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.
Explanation of Negative:

BROWN, A.: As a risk engineer who regularly performs risk analysis to determine if risk mitigation is required to achieve a desired level of safety or property protection, I would disagree with the Committee's approach towards risk based application of the Standard. The Committee's approach is based on the assumption that that the application of the standard as a whole, always results in a safe or adequately protected facility and does not result in the installation of unnecessary or excessive levels of protection. To allow the user of the standard to decide not to implement a portion of the standard, when they have good reason to do so simply recognizes the fact that the committee cannot foresee all circumstances under which the standard will be applied and allows flexibility of users, and AHJ's, not to apply portions of the standard when a documented risk analysis demonstrates that the application of the portion of the standard brings no benefit or that the cost of implementing the portion of the standard outweighs the benefits. This approach has been applied successfully in Europe to Health & Safety since 1989 and does not devalue the codes and standards that we employ. I would ask the committee to reconsider their approach to Risk Assessment and to allow partial application of the standard and not require 100% compliance.

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. 75-2 (Log #CP9) 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.
Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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. 75-2 (Log #CP9) 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.
Committee Meeting Action: Accept
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-7 Log #8
(3.3.x.2 Abandoned Cables (New)) **Final Action: Reject**

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.
Number Eligible to Vote: 28
Ballot Results: Affirmative: 25
Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 24 Negative: 1

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

Explanation of Negative:

MCCLUER, S.: The committee action should have been to accept in principle. We note that the comment applies to ROP #75-8, not to #75-9 as shown on the report. The submitter's comment did not introduce new definitions, as the "communications equipment" definition had already been accepted in ROP # 75-11 and the "communications circuit" had already been accepted in ROP #75-15. Both properly reference the source of the definition as NFPA 70. The modification to the definition for "information technology equipment" is editorial in nature; it deletes the improperly cited citations to the NEC per the NEC style manual. Because the NEC definition notes two clauses within itself, the definition cannot be used verbatim in NFPA 75. If the committee wishes to cite the source of the definition as coming from NEC, then it should follow the recommendation in submitter's substantiation, with the clarification that the definition appears in NEC 645.2.

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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), where 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 Proposals 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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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.

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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 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.

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

Comment on Affirmative:

MCCLUER, S.: We understand the final paragraph to refer to A.3.4.6, not to A.3.3.10 as shown, and it is meant to be deleted.

75-13 Log #20 **Final Action: Reject**
(4.1, 8.1.1.2, and A.4.1.2)

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-14 Log #15 **Final Action: Reject**
(4.2)

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-15 Log #3 **Final Action: Accept in Principle**
(4.2.1.2)

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 75-22 (Log #CP11) 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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-18 Log #28 **Final Action: Accept in Principle**
(5.7 (New))

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 NFPA 101
 - (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.

Number Eligible to Vote: 28**Ballot Results:** Affirmative: 25**Ballot Not Returned:** 3 Goonan, T., Petrou, G., Roux, H.**Comment on Affirmative:**

MCCLUER, S.: Clause 5.7.9 is redundant and should have been deleted

- The requirement for a suppression system to be designed to develop the required concentration for the entire volume served is already addressed in 8.4.2.

- Requiring a system to be designed after it already exists is a nonsequitur. 5.7.10 is worded clumsily and contains two provisions. It should have been worded something as follows:

5.7.9 When an aisle containment system or a hot air collar is installed into a space with an existing gaseous suppression system, one of the following shall apply:

(1) The aisle containment system or hot air collar permits the existing gaseous suppression system to produce the required concentration throughout the volume served; or

(2) the gaseous suppression system is modified to ensure that it can produce the required concentration within the contained area.

A.5.7.6 - The rewording did not add clarity. Temperatures in a hot aisle can exceed 100F for short, prolonged, or continuous time periods during normal facility operations. We have observed hot aisle temperatures as high as 125F under normal operating conditions.

A.5.7.8.1 the final sentence should read "...timed response and effective performance..."

75-19 Log #23

Final Action: Accept in Part**(6.1)****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 Proposal 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.**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 25**Ballot Not Returned:** 3 Goonan, T., Petrou, G., Roux, H.

75-20 Log #1

Final Action: Accept**(8.1)****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.

Committee Meeting Action: Accept**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 25**Ballot Not Returned:** 3 Goonan, T., Petrou, G., Roux, H.

75-21 Log #13

Final Action: Accept in Principle**(8.1.1.2)****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 75-25 (Log #CC4).**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 25**Ballot Not Returned:** 3 Goonan, T., Petrou, G., Roux, H.**Comment on Affirmative:**

LANGER, R.: I believe the committee action should refer to 75-25, (Log #CC4) not 75-30, (Log #4).

75-22 Log #16

Final Action: Reject**(8.1.1.2)****Submitter:** Joshua Elvove, U.S. General Services Administration**Comment on Proposal No:** 75-20**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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-23 Log #21 **Final Action: Reject**
(8.1.1.2)

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-24 Log #24 **Final Action: Reject**
(8.1.1.2)

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-25 Log #CC4 **Final Action: Accept**
(8.1.1.2)

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 24 Negative: 1

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

Explanation of Negative:

WILLARD, R.: The text of 8.1.1.2 (2) results in a near universal requirement to provide underfloor suppression, even in spaces having only minute quantities of combustible materials that would normally be exempted by standards such as NFPA 13. This requirement for suppression in underfloor spaces has never been justified by any data such as loss history or fire location analysis. The absolute requirement for underfloor suppression can result in an undue and unjustified burden.

75-26 Log #5 **Final Action: Hold**
(8.1.3)

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-27 Log #CC5 **Final Action: Accept**
(8.1.3)

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 24 Negative: 1

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

Explanation of Negative:

WILLARD, R.: The 2009 verbiage of section 8.1.3 "valved separately from" is not clear and can be open to multiple interpretations. The committee action and particularly the substantiation will now permit the sprinkler system serving the Information Technology Equipment areas to be arranged as sub-systems to larger systems serving other areas. Thus, whenever an outage is required to accommodate work in these other areas, an outage of the IT area sprinkler system will also occur. Such an arrangement reduces the level of protection within the IT area.

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 Proposal 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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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 Proposal 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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 24 Negative: 1

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

Explanation of Negative:

MCCLUER, S.: The committee action should have been to accept in principle. The submitter's comment was on proposal #75-49 and clause 8.2.2, both of which address the use of automatic smoke detectors with interlocks and shutdown devices. Submitter asks to create an Annex A.8.2.2. The committee's action on the original proposal 75-49, while vague, was to refer to its actions on proposals #75-32 and 75-29. Both require interlock and automatic damper operation. Clause 8.2.2. of the existing standard addresses shutdown devices. Annex A.8.2.1 (previous clause) raises concerns about sensor sensitivity. Cross zoning to prevent false alarms is an established practice which, while not mandatory, deserves to be recognized as a good idea in Annex A.8.2.2.

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 4.3.11.5.5.5 in the section on raised floor plenums.

4.3.11.5.5.5 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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

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

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-33 Log #CC3 **Final Action: Accept**
(10.4.2)

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 75-32 (Log #CC2).

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.

75-34 Log #10 **Final Action: Reject**
(10.4.8 (New))

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.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 25

Ballot Not Returned: 3 Goonan, T., Petrou, G., Roux, H.