

2009 Annual Revision Cycle

Report on Proposals

A compilation of NFPA® Technical Committee Reports on Proposals for public review and comment

Public Comment Deadline: August 29, 2008

NOTE: The proposed NFPA documents addressed in this Report on Proposals (ROP) and in a follow-up Report on Comments (ROC) will only be presented for action at the NFPA June 2009 Association Technical Meeting to be held June 8–11, 2009, at McCormick Place in Chicago, IL, when proper Amending Motions have been submitted to the NFPA by the deadline of April 3, 2009. 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 (RGCPs)*. 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*. These rules and regulations are contained in the *NFPA Directory*. For copies of the *Directory*, contact Codes and Standards Administration at NFPA Headquarters; 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 (TCR). The Technical Committee Report is defined as “the Report of the Technical Committee and Technical Correlating Committee (if any) on a document. A Technical Committee Report consists of the Report on Proposals (ROP), as modified by the Report on Comments (ROC), published by the Association” (see 1.4 of *RGCPs*).

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” (see 1.4 of *RGCPs*). 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)” (see 1.4 of *RGCPs*). 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 *RGCPs* 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 *RGCPs* 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 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 *RGCPs*). Time constraints for filing an appeal must be in accordance with 1.6.2 of the *RGCPs*. 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 sixty days from the date of the recommendation from the Association Technical Meeting, unless this period is extended by the Council (see 4.8 of *RGCPs*). 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 4.5.7 and 4.8 of *RGCPs*).

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 *RGCPs*.

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).

2009 Annual Revision Cycle ROP Contents

by NFPA Numerical Designation

Note: Documents appear in numerical order.

NFPA No.	Type Action	Title	Page No.
13	P	Standard for the Installation of Sprinkler Systems	13-1
13D	P	Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	13D-1
13R	P	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.....	13R-1
20	P	Standard for the Installation of Stationary Pumps for Fire Protection	20-1
24	P	Standard for the Installation of Private Fire Service Mains and Their Appurtenances.....	24-1
72 [®]	P	<i>National Fire Alarm Code</i> [®]	72-1
80	P	Standard for Fire Doors and Other Opening Protectives.....	80-1
99	P	Standard for Health Care Facilities	99-1
99B	P	Standard for Hypobaric Facilities	99B-1
101A	P	Guide on Alternative Approaches to Life Safety.....	101A-1
105	P	Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives	105-1
110	P	Standard for Emergency and Standby Power Systems.....	110-1
111	P	Standard on Stored Electrical Energy Emergency and Standby Power Systems.....	111-1
130	P	Standard for Fixed Guideway Transit and Passenger Rail Systems.....	130-1
291	P	Recommended Practice for Fire Flow Testing and Marking of Hydrants	291-1
302	P	Fire Protection Standard for Pleasure and Commercial Motor Craft	302-1
400	N	Hazardous Materials Code	400-1
430	W	Code for the Storage of Liquid and Solid Oxidizers	430-1
432	W	Code for the Storage of Organic Peroxide Formulations	432-1
434	W	Code for the Storage of Pesticides	434-1
490	W	Code for the Storage of Ammonium Nitrate	490-1
1123	P	Code for Fireworks Display	1123-1
1221	P	Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems	1221-1
1710	C	Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments	1710-1
1720	C	Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.....	1720-1

**2009 Annual Revision Cycle ROP
Committees Reporting**

	Type Action	Page No.
Automatic Sprinkler Systems		
13 Standard for the Installation of Sprinkler Systems	P	13-1
Residential Sprinkler Systems		
13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	P	13D-1
13R Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	P	13R-1
Emergency Power Supplies		
110 Standard for Emergency and Standby Power Systems	P	110-1
111 Standard on Stored Electrical Energy Emergency and Standby Power Systems	P	111-1
Fire and Emergency Service Organization and Deployment-Career		
1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments	C	1710-1
Fire and Emergency Service Organization and Deployment-Volunteer		
1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments	C	1720-1
Fire Doors and Windows		
80 Standard for Fire Doors and Other Opening Protectives	P	80-1
105 Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives	P	105-1
Fire Pumps		
20 Standard for the Installation of Stationary Pumps for Fire Protection	P	20-1
Fixed Guideway Transit Systems		
130 Standard for Fixed Guideway Transit and Passenger Rail Systems	P	130-1
Hazardous Chemicals		
400 Hazardous Materials Code	N	400-1
430 Code for the Storage of Liquid and Solid Oxidizers	W	430-1
432 Code for the Storage of Organic Peroxide Formulations	W	432-1
434 Code for the Storage of Pesticides	W	434-1
490 Code for the Storage of Ammonium Nitrate	W	490-1
Health Care Facilities		
99 Standard for Health Care Facilities	P	99-1
Hyperbaric and Hypobaric Facilities		
99B Standard for Hypobaric Facilities	P	99B-1
Motor Craft		
302 Fire Protection Standard for Pleasure and Commercial Motor Craft	P	302-1
Private Water Supply Piping Systems		
24 Standard for the Installation of Private Fire Service Mains and Their Appurtenances	P	24-1
291 Recommended Practice for Fire Flow Testing and Marking of Hydrants	P	291-1
Public Emergency Service Communication		
1221 Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems	P	1221-1
Pyrotechnics		
1123 Code for Fireworks Display	P	1123-1
Safety to Life		
Alternative Approaches to Life Safety		
101A Guide on Alternative Approaches to Life Safety	P	101A-1
Signaling Systems for the Protection of Life and Property		
72® <i>National Fire Alarm Code®</i>	P	72-1

Key to Proposal 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
(3.4)

Final Action: Accept

TYPES OF ACTION

P Partial Revision **C** Complete Revision **N** New Document **R** Reconfirmation **W** Withdrawal

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.

**FORM FOR COMMENTS ON NFPA REPORT ON PROPOSALS
2009 ANNUAL REVISION CYCLE
FINAL DATE FOR RECEIPT OF COMMENTS: 5:00 pm EDST, August 29, 2008**

For further information on the standards-making process, please contact the Codes and Standards Administration at 617-984-7249 or visit www.nfpa.org/codes.

For technical assistance, please call NFPA at 1-800-344-3555.

FOR OFFICE USE ONLY

Log #: _____

Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC electronic paper download
(Note: If choosing the download option, you must view the ROP/ROC from our website; no copy will be sent to you.)

Date 8/1/200X Name John B. Smith Tel. No. 253-555-1234

Company _____ Email _____

Street Address 9 Seattle St. City Tacoma State WA Zip 98402

***If you wish to receive a hard copy, a street address MUST be provided. Deliveries cannot be made to PO boxes.

Please indicate organization represented (if any) Fire Marshals Assn. of North America

1. (a) NFPA Document Title National Fire Alarm Code NFPA No. & Year NFPA 72, 200X ed.

(b) Section/Paragraph 4.4.1.1

2. Comment on Proposal No. (from ROP): 72-7

3. Comment Recommends (check one): new text revised text deleted text

4. Comment (include proposed new or revised wording, or identification of wording to be deleted): [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

Delete exception.

5. **Statement of Problem and Substantiation for Comment:** (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Comment, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

A properly installed and maintained system should be free of ground faults. The occurrence of one or more ground faults should be required to cause a 'trouble' signal because it indicates a condition that could contribute to future malfunction of the system. Ground fault protection has been widely available on these systems for years and its cost is negligible. Requiring it on all systems will promote better installations, maintenance and reliability.

6. Copyright Assignment

(a) I am the author of the text or other material (such as illustrations, graphs) proposed in this Comment.

(b) Some or all of the text or other material proposed in this Comment was not authored by me. Its source is as follows (please identify which material and provide complete information on its source):

I agree that any material that I author, either individually or with others, in connection with work performed by an NFPA Technical Committee shall be considered to be works made for hire for the NFPA. To the extent that I retain any rights in copyright as to such material, or as to any other material authored by me that I submit for the use of an NFPA Technical Committee in the drafting of an NFPA code, standard, or other NFPA document, I hereby grant and assign all and full rights in copyright to the NFPA. I further agree and acknowledge that I acquire no rights in any publication of the NFPA and that copyright and all rights in materials produced by NFPA Technical Committees are owned by the NFPA and that the NFPA may register copyright in its own name.

Signature (Required) _____

PLEASE USE SEPARATE FORM FOR EACH COMMENT • email: proposals_comments@nfpa.org • NFPA Fax: (617) 770-3500
Mail to: Secretary, Standards Council, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471

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For technical assistance, please call NFPA at 1-800-344-3555.

FOR OFFICE USE ONLY

Log #: _____

Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC electronic paper download
(Note: If choosing the download option, you must view the ROP/ROC from our website; no copy will be sent to you.)

Date _____ Name _____ Tel. No. _____

Company _____ Email _____

Street Address _____ City _____ State _____ Zip _____

***If you wish to receive a hard copy, a street address **MUST** be provided. Deliveries cannot be made to PO boxes.

Please indicate organization represented (if any) _____

1. (a) NFPA Document Title _____ NFPA No. & Year _____

(b) Section/Paragraph _____

2. Comment on Proposal No. (from ROP): _____

3. Comment Recommends (check one): new text revised text deleted text

4. Comment (include proposed new or revised wording, or identification of wording to be deleted): [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

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(b) Some or all of the text or other material proposed in this Comment was not authored by me. Its source is as follows (please identify which material and provide complete information on its source):

I agree that any material that I author, either individually or with others, in connection with work performed by an NFPA Technical Committee shall be considered to be works made for hire for the NFPA. To the extent that I retain any rights in copyright as to such material, or as to any other material authored by me that I submit for the use of an NFPA Technical Committee in the drafting of an NFPA code, standard, or other NFPA document, I hereby grant and assign all and full rights in copyright to the NFPA. I further agree and acknowledge that I acquire no rights in any publication of the NFPA and that copyright and all rights in materials produced by NFPA Technical Committees are owned by the NFPA and that the NFPA may register copyright in its own name.

Signature (Required) _____

**PLEASE USE SEPARATE FORM FOR EACH COMMENT • email: proposals_comments@nfpa.org • NFPA Fax: (617) 770-3500
Mail to: Secretary, Standards Council, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471**

4/16/2008

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 Technical Committee Report Session

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

▼ NFPA membership meets each June at the Annual Meeting Technical Committee Report Session 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 Technical Committee Report Session of the NFPA Annual 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 Technical Committee Report Sessions that take place at the NFPA Annual Meeting.

The Technical Committee Report Session 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 a Technical Committee Report Session. The following presents some of the main features of how a Report is handled.

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 World Safety Conference & Exposition®, 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, NFPA rules should be consulted.

The Filing of a Notice of Intent to Make a Motion. Before making an allowable motion at a Technical Report Session, 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 Technical Committee Report Session.

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 Technical Committee Report Session and head straight to the Standards Council for issuance. The remaining Documents are then forwarded to the Technical Committee Report Session for consideration of the NFPA membership.

Action on Motions at the Technical Committee Report Session. In order to actually make a Certified Amending Motion at the Technical Committee Report Session, 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 session 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 Technical Correlating Committee on

Automatic Sprinkler Systems (AUT-AAC)

Edward K. Budnick, *Chair*
Hughes Associates, Inc., MD [SE]

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

Jose R. Baz, JRB Associates Group Inc., FL [M]
Rep. NFPA Latin American Section
Kerry M. Bell, Underwriters Laboratories Inc., IL [RT]
Russell P. Fleming, National Fire Sprinkler Association, Inc., NY [M]
Scott T. Franston, The Viking Corporation, MI [M]
Michael J. Friedman, Friedman Consulting, Inc., MD [SE]
Raymond A. Grill, Arup Fire, DC [SE]
Luke Hilton, Liberty Mutual Property, NC [I]
Alex Hoffman, Viking Fire Protection Inc., Canada [IM]
Rep. Canadian Automatic Sprinkler Association
Roland J. Huggins, American Fire Sprinkler Association, Inc., TX [IM]
Sultan M. Javeri, SC Engineering, France [IM]
Charles W. Ketner, National Automatic Sprinkler Fitters LU 669, MD [L]
Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry
Andrew Kim, National Research Council of Canada, Canada [RT]
John G. O'Neill, The Protection Engineering Group, PC, VA [SE]
Chester W. Schirmer, Schirmer Engineering Corporation, NC [I]
J. William Sheppard, General Motors Corporation, MI [U]
Robert D. Spaulding, FM Global, MA [I]
Douglas Paul Stultz, US Department of the Navy, VA [E]
Lynn K. Underwood, Axis US Property, IL [I]

Alternates

Donald D. Becker, RJC & Associates, Inc., MO [IM]
(Alt. to Roland J. Huggins)
Thomas C. Brown, The RJA Group, Inc., MD [SE]
(Alt. to Raymond A. Grill)
David B. Fuller, FM Global, MA [I]
(Alt. to Robert D. Spaulding)
Kenneth E. Isman, National Fire Sprinkler Association, Inc., NY [M]
(Alt. to Russell P. Fleming)
George E. Laverick, Underwriters Laboratories Inc., IL [RT]
(Alt. to Kerry M. Bell)
Garner A. Palenske, Schirmer Engineering Corporation, CA [I]
(Alt. to Chester W. Schirmer)
Donato A. Pirro, Electro Sistemas De Panama, S.A., Panama [M]
(Alt. to Jose R. Baz)
J. Michael Thompson, The Protection Engineering Group, PC, VA [SE]
(Alt. to John G. O'Neill)

Nonvoting

James B. Biggins, Marsh Risk Consulting, IL [I]
Rep. TC on Private Water Supply Piping Systems
Antonio C. M. Braga, FM Global, CA [I]
Rep. TC on Hanging & Bracing of Water-Based Systems
Robert M. Gagnon, Gagnon Engineering, MD [SE]
Rep. TC on Foam-Water Sprinklers
William E. Koffel, Koffel Associates, Inc., MD [SE]
Rep. Safety to Life Correlating Committee
Kenneth W. Linder, Swiss Re, Global Asset Protection Services, CT [I] Rep.
TC on Sprinkler System Discharge Criteria
Joe W. Noble, Noble Consulting Services, LLC, NV [E]
Rep. TC on Sprinkler System Installation Criteria
Maurice M. Pilette, Mechanical Designs Ltd., MA [SE]
Rep. TC on Residential Sprinkler Systems
John J. Walsh, UA Joint Apprenticeship Committee, MD [SE]
(Member Emeritus)

Committee Scope: This Committee shall have overall responsibility for documents that pertain to the criteria for the design and installation of automatic, open and foam-water sprinkler systems including the character and adequacy of water supplies, and the selection of sprinklers, piping, valves, and all materials and accessories. This Committee does not cover the installation of tanks and towers, nor the installation, maintenance, and use of central station, proprietary, auxiliary, and local signaling systems for watchmen, fire alarm, supervisory service, nor the design of fire department hose connections.

Report of the Technical Committee on

Hanging and Bracing of Water-Based Fire Protection Systems (AUT-HBS)

Antonio C. M. Braga, *Chair*
FM Global, CA [I]

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

James B. Biggins, Marsh Risk Consulting, IL [I]
Richard W. Bonds, Ductile Iron Pipe Research Association, AL [M]
Samuel S. Dannaway, S. S. Dannaway Associates, Inc., HI [SE]
John Deutsch, City of Brea Fire Department, CA [E]
Daniel C. Duggan, Fire Sprinkler Design, MO [M]
Thomas J. Forsythe, Hughes Associates, Inc., CA [SE]
John D. Gillengerten, State of California, CA [E]
Rep. Building Seismic Safety Council/Code Resource Support Committee
Jeffrey E. Harper, The RJA Group, Inc., IL [SE]
Tina Marie King, XL Global Asset Protection Services, CA [I]
Kraig Kirschner, AFCON, CA [M]
Alan R. Laguna, Merit Sprinkler Company, Inc., LA [IM]
George E. Laverick, Underwriters Laboratories Inc., IL [RT]
Philip D. LeGrone, ICAT Managers, LLC, TN [I]
Norman J. MacDonald, III, FlexHead Industries, Inc., MA [M]
Wayne M. Martin, Wayne Martin & Associates Inc. (WMA), CA [SE]
Gregory F. Masterson, Liberty Mutual Property, MA [I]
David S. Mowrer, HSB Professional Loss Control, TN [I]
Randy R. Nelson, VFS Fire and Security Services, CA [IM]
Rep. American Fire Sprinkler Association
Janak B. Patel, Bechtel Savannah River Company, GA [U]
Michael A. Rothmier, UA Joint Apprenticeship Committee, CO [L]
Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry
Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc., FL [IM]
Zeljko Sucevic, Vipond Fire Protection, Canada [IM]
Rep. Canadian Automatic Sprinkler Association
James Tauby, Mason Industries, Inc., NY [M]
Jack W. Thacker, Allan Automatic Sprinkler Corp. of So. California, CA [IM]
Rep. National Fire Sprinkler Association
Victoria B. Valentine, National Fire Sprinkler Association, Inc., NY [M]
Thomas G. Wellen, American Fire Sprinkler Association, Inc., TX [M]

Alternates

Robert E. Bachman, Consulting Structural Engineer, CA [M]
(Alt. to Norman J. MacDonald, III)
Charles W. Bamford, Bamford Inc., WA [IM]
(Alt. to Randy R. Nelson)
Sheldon Dacus, Security Fire Protection Company, TN [M]
(Alt. to Victoria B. Valentine)
Christopher I. Deneff, FM Global, RI [I]
(Alt. to Antonio C. M. Braga)
Todd A. Dillon, XL Global Asset Protection Services, OH [I]
(Alt. to Tina Marie King)
George Von Gnatensky, Tolco, CA [M]
(Voting Alt. to NFSA Rep.)
Charles W. Ketner, National Automatic Sprinkler Fitters LU 669, MD [L]
(Alt. to Michael A. Rothmier)
Michael J. Madden, Hughes Associates, Inc., CA [SE]
(Alt. to Thomas J. Forsythe)
Emil W. Misichko, Underwriters Laboratories Inc., IL [RT]
(Alt. to George E. Laverick)
Glenn E. Thompson, Liberty Mutual Property, CA [I]
(Alt. to Gregory F. Masterson)
Kenneth W. Wagoner, Parsley Consulting Engineers, CA [M]
(Alt. to Thomas G. Wellen)
Ronald N. Webb, S.A. Comunale Company, Inc., OH [IM]
(Alt. to Jack W. Thacker)

Committee Scope: This Committee shall have the primary responsibility for those portions of NFPA 13 that pertain to the criteria for the use and installation of components and devices used for the support of water-based fire protection system piping including protection against seismic events.

Report of the Technical Committee on**Private Water Supply Piping Systems (AUT-PRI)**

James B. Biggins, *Chair*
Marsh Risk Consulting, IL [I]

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

Richard W. Bonds, Ductile Iron Pipe Research Association, AL [M]
Phillip A. Brown, American Fire Sprinkler Association, Inc., TX [IM]
Stephen A. Clark, Jr., Allianz Risk Consultants, LLC, GA [I]
Brandon W. Frakes, XL Global Asset Protection Services, NC [I]
David B. Fuller, FM Global, MA [I]
Robert M. Gagnon, Gagnon Engineering, MD [SE]
Charles F. Hill, Ryan Fire Protection, Inc., IN [IM]
 Rep. National Fire Sprinkler Association
Luke Hilton, Liberty Mutual Property, NC [I]
Jeffrey M. Hugo, National Fire Sprinkler Association, Inc., MI [M]
Gerald Kelliher, Washington Savannah River Company, SC [U]
Alan R. Laguna, Merit Sprinkler Company, Inc., LA [IM]
John Lake, Marion County Fire Rescue, FL [E]
George E. Laverick, Underwriters Laboratories Inc., IL [RT]
James M. Maddry, James M. Maddry, P.E., GA [SE]
Kevin D. Maughan, Tyco Fire Suppression & Building Products, RI [M]
David S. Mowrer, HSB Professional Loss Control, TN [I]
Robert A. Panero, Pacific Gas and Electric Company, CA [U]
 Rep. Edison Electric Institute
Darrin A. Parsons, Road Sprinkler Fitters Local Union 669, MD [L]
 Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry
Sam Sat Salwan, Environmental Systems Design, Inc., IL [SE]
James R. Schifiliti, Fire Safety Consultants, Inc., IL [IM]
 Rep. Illinois Fire Prevention Association
Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc., FL [IM]
J. William Sheppard, General Motors Corporation, MI [U]
 Rep. NFPA Industrial Fire Protection Section
James W. Simms, The RJ Group, Inc., CA [SE]

Alternates

Mark A. Bowman, XL Global Asset Protection Services, OH [I]
 (Alt. to Brandon W. Frakes)
James A. Charrette, Allan Automatic Sprinkler Corp. of So. California, CA [IM]
 (Alt. to Charles F. Hill)
James K. Clancy, The RJ Group, Inc., CA [SE]
 (Alt. to James W. Simms)
Tanya M. Gilbreath, Liberty Mutual Property, MA [I]
 (Alt. to Luke Hilton)
Cliff Hartford, Tyco Fire & Building Products, NY [M]
 (Alt. to Kevin D. Maughan)
Andrew C. Higgins, Allianz Risk Consultants, Inc., GA [I]
 (Alt. to Stephen A. Clark, Jr.)
Martin Ramos, Environmental Systems Design, Inc., IL [SE]
 (Alt. to Sam Sat Salwan)
Blake M. Shugarman, Underwriters Laboratories Inc., IL [RT]
 (Alt. to George E. Laverick)
Lawrence Thibodeau, Hampshire Fire Protection Company Inc., NH [IM]
 (Alt. to Phillip A. Brown)

Nonvoting

Geoffrey N. Perkins, Bassett Consulting Engineers, Australia [SE]

Committee Scope: This Committee shall have the primary responsibility for documents on private piping systems supplying water for fire protection and for hydrants, hose houses, and valves. The Committee is also responsible for documents on fire flow testing and marking of hydrants.

Report of the Technical Committee on**Residential Sprinkler Systems (AUT-RSS)**

Maurice M. Pilette, *Chair*
Mechanical Designs Ltd., MA [SE]

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

George W. Baker, Mashpee Fire & Rescue Department, MA [E]
 Rep. International Association of Fire Chiefs
Kerry M. Bell, Underwriters Laboratories Inc., IL [RT]
Fred Benn, Advanced Automatic Sprinkler, Inc., CA [IM]
Jonathan C. Bittenbender, REHAU Incorporated, VA [M]
Frederick C. Bradley, FCB Engineering, GA [SE]
Phillip A. Brown, American Fire Sprinkler Association, Inc., TX [IM]
Thomas G. Deegan, The Viking Group, Inc., MI [M]
 Rep. National Fire Sprinkler Association
Dana R. Haagensen, Massachusetts Office of the State Fire Marshal, MA [E]
Mark Hopkins, Hughes Associates, Inc., MD [SE]
Kenneth E. Isman, National Fire Sprinkler Association, Inc., NY [M]
 Rep. National Fire Sprinkler Association
Gary L. Johnson, Noveon, Inc., VA [M]
 Rep. Committee for Firesafe Dwellings
Charles W. Ketner, National Automatic Sprinkler Fitters LU 669, MD [L]
 Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry
David Killey, Fire Busters Incorporated, Canada [IM]
 Rep. Canadian Automatic Sprinkler Association
Alan G. Larson, Uponsor-USA, MN [M]
Daniel Madrzykowski, US National Institute of Standards & Technology, MD [RT]
M. Larry Maruskin, US Department of Homeland Security, MD [C]
Ronald G. Nickson, National Multi Housing Council, DC [U]
Steven Orłowski, National Association of Home Builders, DC [U]
Steven R. Rians, Standard Automatic Fire Enterprises, Inc., TX [IM]
 Rep. American Fire Sprinkler Association
Chester W. Schirmer, Schirmer Engineering Corporation, NC [I]
Harry Shaw, Fail Safe Safety Systems Inc., MD [M]
Sandra Stanek, Fire Code Consultants, CA [E]
 Rep. California Fire Chiefs Association
George W. Stanley, Wiginton Fire Systems, FL [IM]
 Rep. National Fire Sprinkler Association
Randolph W. Tucker, The RJ Group, Inc., TX [SE]
Ed Van Walraven, Aspen Fire Protection District, CO [E]
Terry L. Victor, Tyco/SimplexGrinnell, MD [M]
Hong-Zeng Yu, FM Global, MA [I]

Alternates

David W. Ash, Noveon, Inc., OH [M]
 (Alt. to Gary L. Johnson)
Edward K. Budnick, Hughes Associates, Inc., MD [SE]
 (Alt. to Mark Hopkins)
Michael F. Cabral, REHAU Inc., VA [M]
 (Alt. to Jonathan C. Bittenbender)
James K. Clancy, The RJ Group, Inc., CA [SE]
 (Alt. to Randolph W. Tucker)
Mark E. Fessenden, Tyco Fire Suppression & Building Products, RI [M]
 (Alt. to Terry L. Victor)
David B. Fuller, FM Global, MA [I]
 (Alt. to Hong-Zeng Yu)
Timothy C. Higgins, Aegis Fire Systems, Inc., CA [IM]
 (Alt. to Phillip A. Brown)
George E. Laverick, Underwriters Laboratories Inc., IL [RT]
 (Alt. to Kerry M. Bell)
Stephen M. Leyton, Protection Design and Consulting, CA [IM]
 (Alt. to Steven R. Rians)
Thomas L. Multer, Reliable Automatic Sprinkler Company, Inc., SC [M]
 (Alt. to Thomas G. Deegan)
Matthew Osburn, Canadian Automatic Sprinkler Association, Canada [IM]
 (Alt. to David Killey)
Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc., FL [IM]
 (Alt. to George W. Stanley)
Ronald N. Webb, S.A. Comunale Company, Inc., OH [M]
 (Alt. to Kenneth E. Isman)
Joseph E. Wiehagen, National Association of Home Builders, MD [U]
 (Alt. to Steven Orłowski)
James V. C. Yates, West Windsor Emergency Services, NJ [E]
 (Alt. to George W. Baker)

Nonvoting

Rohit Khanna, US Consumer Product Safety Commission, MD [C]

Committee Scope: This Committee shall have primary responsibility for documents on the design and installation of automatic sprinkler systems in dwellings and residential occupancies up to and including four stories in height, including the character and adequacy of water supplies, and the selection of sprinklers, piping, valves, and all materials and accessories.

Report of the Technical Committee on**Sprinkler System Discharge Criteria (AUT-SSD)**

Kenneth W. Linder, *Chair*

Swiss Re, Global Asset Protection Services, CT [I]

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

Weston C. Baker, Jr., FM Global, MA [I]

Charles O. Bauroth, Liberty Mutual Property, MA [I]

Rep. Property Casualty Insurers Association of America

Kerry M. Bell, Underwriters Laboratories Inc., IL [RT]

Tracey D. Bellamy, TVA Fire and Life Safety, Inc., GA [U]

Rep. The Home Depot

Michael H. Blumenthal, Rubber Manufacturers Association, DC [M]

James C. Bollier, Sprinkler Fitters UA Local 483, CA [L]

Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry

Thomas G. Deegan, The Viking Group, Inc., MI [M]

John August Denhardt, Strickland Fire Protection, Inc., MD [IM]

Rep. American Fire Sprinkler Association

James G. Gallup, The RJA Group, Inc., AZ [SE]

James E. Golinveaux, Tyco Fire Suppression & Building Products, RI [M]

Bo Hjorth, AlbaCon AB, Sweden [SE]

Alfred J. Hogan, Winter Haven, FL [E]

Rep. New England Association of Fire Marshals

Donald Hopkins, Jr., Hughes Associates, Inc., MD [SE]

Roland J. Huggins, American Fire Sprinkler Association, Inc., TX [IM]

Kenneth E. Isman, National Fire Sprinkler Association, Inc., NY [M]

Sultan M. Javeri, SC Engineering, France [IM]

Larry Keeping, Vipond Fire Protection, Canada [IM]

Rep. Canadian Automatic Sprinkler Association

Andrew Kim, National Research Council of Canada, Canada [RT]

William E. Koffel, Koffel Associates, Inc., MD [SE]

Chris LaFleur, General Motors Corporation, MI [U]

Thomas L. Multer, Reliable Automatic Sprinkler Company, Inc., SC [M]

Rep. National Fire Sprinkler Association

Richard Pehrson, Futrell Fire Consult and Design, Inc., MN [E]

Rep. International Fire Marshals Association

Chester W. Schirmer, Schirmer Engineering Corporation, NC [I]

Peter A. Smith, International Paper Company, TN [U]

Jack W. Thacker, Allan Automatic Sprinkler Corp. of So. California, CA [IM]

Rep. National Fire Sprinkler Association

Alternates

Carl P. Anderson, Tacoma Fire Department, WA [E]

(Voting Alt. for Fire Service Rep.)

Gordon Bates, Minneapolis Fire Department, MN [E]

(Alt. to Richard Pehrson)

Richard Battista, Fire Protection Industries, Inc., NJ [M]

(Alt. to Kenneth E. Isman)

Thomas C. Brown, The RJA Group, Inc., MD [SE]

(Alt. to James G. Gallup)

Edward K. Budnick, Hughes Associates, Inc., MD [SE]

(Alt. to Donald Hopkins, Jr.)

Pravinray D. Gandhi, Underwriters Laboratories Inc., IL [RT]

(Alt. to Kerry M. Bell)

Joseph B. Hankins, Jr., American Fire Sprinkler Association, NC [IM]

(Alt. to John August Denhardt)

Stephen R. Ide, Victaulic Fire Safety, PA [M]

(Alt. to Thomas L. Multer)

Daniel Madrzykowski, US National Institute of Standards & Technology, MD [RT]

(Voting Alt. to NIST Rep.)

Rodney Marchand, International Paper Company, TN [U]

(Alt. to Peter A. Smith)

Thomas McNamara, United Assn. of Journeymen & Apprentices of the

Plumbing & Pipe Fitting Industry, MI [L]

(Alt. to James C. Bollier)

Jack A. Medovich, East Coast Fire Protection, Inc., MD [IM]

(Alt. to Roland J. Huggins)

Matthew Osburn, Canadian Automatic Sprinkler Association, Canada [IM]

(Alt. to Larry Keeping)

Garner A. Palenske, Schirmer Engineering Corporation, CA [I]

(Alt. to Chester W. Schirmer)

Michael D. Sides, XL Global Asset Protection Services, FL [I]

(Alt. to Kenneth W. Linder)

George W. Stanley, Wiginton Fire Systems, FL [IM]

(Alt. to Jack W. Thacker)

Peter W. Thomas, Tyco Fire & Building Products, RI [M]

(Alt. to James E. Golinveaux)

William J. Tomes, TVA Fire and Life Safety, Inc., GA [U]

(Alt. to Tracey D. Bellamy)

Rep. The Home Depot

Martin H. Workman, The Viking Corporation, MI [M]

(Alt. to Thomas G. Deegan)

Nonvoting

Barry M. Lee, Tyco International, Australia [M]

Committee Scope: This Committee shall have primary responsibility for those portions of NFPA 13 that pertain to the classification of various fire hazards and the determination of associated discharge criteria for sprinkler systems employing automatic and open sprinklers.

Report of the Technical Committee on

Sprinkler System Installation Criteria [AUT-SSI]

Joe W. Noble, *Chair*

Noble Consulting Services, LLC, NV [E]
Rep. International Fire Marshals Association

James D. Lake, *Nonvoting Secretary*
National Fire Protection Association, MA

Michael A. Amar, Gage-Babcock & Associates, Inc., CA [SE]
Hamid R. Bahadori, Hughes Associates, Inc., FL [SE]
Weston C. Baker, Jr., FM Global, MA [I]
Cecil Bilbo, Jr., National Fire Sprinkler Association, Inc., IL [M]
Robert G. Caputo, Consolidated Fireprotection, Inc., CA [IM]
Rep. American Fire Sprinkler Association
Del Dornbos, The Viking Corporation, MI [M]
Rep. National Fire Sprinkler Association
Robert E. Duke, Fire Control Incorporated, IL [IM]
Ralph Gerdes, Ralph Gerdes Consultants, LLC, IN [SE]
Rep. American Institute of Architects
Luke Hilton, Liberty Mutual Property, NC [I]
Rep. Property Casualty Insurers Association of America
Elwin G. Joyce, II, Eastern Kentucky University, KY [U]
Rep. NFPA Industrial Fire Protection Section
Larry Keeping, Vipond Fire Protection, Canada [IM]
Rep. Canadian Automatic Sprinkler Association
Charles W. Ketner, National Automatic Sprinkler Fitters LU 669, MD [L]
Rep. United Assn. of Journeymen & Apprentices of the Plumbing & Pipe Fitting Industry
Michael D. Kirn, Code Consultants, Inc., MO [SE]
George E. Laverick, Underwriters Laboratories Inc., IL [RT]
Kenneth W. Linder, Swiss Re, Global Asset Protection Services, CT [I]
Ausmus S. Marburger, Fire Protection Industries, Inc., PA [IM]
Rep. National Fire Sprinkler Association
Rodney A. McPhee, Canadian Wood Council, Canada [U]
Michael F. Meehan, Virginia Sprinkler Company, Inc., VA [IM]
Rep. American Fire Sprinkler Association
Thomas H. Miller, Varley-Campbell & Associates, Inc., IL [E]
Rep. NFPA Fire Service Section David S. Mowrer, HSB Global Standards, TN [I]
Chester W. Schirmer, Schirmer Engineering Corporation, NC [I]
Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc., FL [IM]
Paul A. Statt, Eastman Kodak Company, NY [U]
Craig R. Studer, The RJA Group, Inc., CA [SE]
Lynn K. Underwood, Axis US Property, IL [I]
Terry L. Victor, Tyco/SimplexGrinnell, MD [M]

Alternates

Kerry M. Bell, Underwriters Laboratories Inc., IL [RT]
(Alt. to George E. Laverick)
Phillip A. Brown, American Fire Sprinkler Association, Inc., TX [IM]
(Alt. to Robert G. Caputo)
Edward K. Budnick, Hughes Associates, Inc., MD [SE]
(Alt. to Hamid R. Bahadori)
James A. Charrette, Allan Automatic Sprinkler Corp. of So. California, CA [IM]
(Alt. to Ausmus S. Marburger)
Todd A. Dillon, XL Global Asset Protection Services, OH [I]
(Alt. to Kenneth W. Linder)
David B. Fuller, FM Global, MA [I]
(Alt. to Weston C. Baker, Jr.)
James E. Golinveaux, Tyco Fire Suppression & Building Products, RI [M]
(Alt. to Terry L. Victor)
Donald G. Goosman, The RJA Group, Inc., IL [SE]
(Alt. to Craig R. Studer)
Stephen R. Ide, Victaulic Fire Safety, PA [M]
(Alt. to Del Dornbos)
Matthew Osburn, Canadian Automatic Sprinkler Association, Canada [IM]
(Alt. to Larry Keeping)
Michael A. Rothmier, UA Joint Apprenticeship Committee, CO [L]
(Alt. to Charles W. Ketner)
Steven J. Scandaliato, Scandaliato Design Group, Inc., CO [IM]
(Alt. to Michael F. Meehan)
LeJay Slocum, Schirmer Engineering Corporation, MD [I]
(Alt. to Chester W. Schirmer)
William B. Smith, Code Consultants, Inc., MO [SE]
(Alt. to Michael D. Kirn)
Glenn E. Thompson, Liberty Mutual Property, CA [I]
(Alt. to Luke Hilton)
Robert Vincent, Shambaugh & Son, L.P., IN [M]
(Alt. to Cecil Bilbo, Jr.)

Nonvoting

Barry M. Lee, Tyco International, Australia [M]

Staff Liaison: **James D. Lake**

Committee Scope: This Committee shall have the primary responsibility for those portions of NFPA 13 that pertain to the criteria for the use and installation of sprinkler systems components (with the exception of those components used for supporting of piping), position of sprinklers, types of systems, plans and calculations, water supplies, and acceptance testing.

These lists represent 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.

The Report of the Committee on **Automatic Sprinkler Systems** is presenting five reports for adoption, as follows:

The Reports were prepared by the:

- Technical Correlating Committee on Automatic Sprinkler Systems (AUT-AAC)
- Technical Committee on Hanging and Bracing of Water-Based Fire Protection Systems (AUT-HBS)
- Technical Committee on Private Water Supply Piping Systems (AUT-PRI)
- Technical Committee on Residential Sprinkler Systems (AUT-RSS)
- Technical Committee on Sprinkler System Discharge Criteria (AUT-SSD)
- Technical Committee on Sprinkler System Installation Criteria (AUT-SSI)

Report I: The Technical Committee proposes for adoption, amendments to NFPA 13, **Standard for the Installation of Sprinkler Systems**, 2007 edition. NFPA 13 is published in Volume 2 of the 2008 National Fire Codes and in separate pamphlet form.

The report on NFPA 13 has been submitted to letter ballot of the individual **Technical Committees**. The results of the balloting, after circulation of any negative votes, can be found in the report.

This Report on Proposals has also been submitted to the **Technical Correlating Committee on Automatic Sprinkler Systems** in two parts. Part 1 is a letter ballot on the TCC Actions, if any; and Part 2 is an informational letter ballot on the Report as a whole. The TCC, which consists of 19 voting members, voted as follows:

Part 1: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Part 2: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Report II: The Technical Committee proposes for adoption, amendments to NFPA 13D, **Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes**, 2007 edition. NFPA 13D is published in Volume 2 of the 2008 National Fire Codes and in separate pamphlet form.

The report on NFPA 13D has been submitted to letter ballot of the **Technical Committee on Residential Sprinkler Systems**, which consists of 28 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

This Report on Proposals has also been submitted to the **Technical Correlating Committee on Automatic Sprinkler Systems** (TCC) in two parts. Part 1 is a letter ballot on the TCC Actions, if any; and Part 2 is an informational letter ballot on the Report as a whole. The TCC, which consists of 19 voting members, voted as follows:

Part 1: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Part 2: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Report III: The Technical Committee proposes for adoption, amendments to NFPA 13R, **Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height**, 2007 edition. NFPA 13R is published in Volume 2 of the 2008 National Fire Codes and in separate pamphlet form.

The report on NFPA 13R has been submitted to letter ballot of the **Technical Committee on Residential Sprinkler Systems**, which consists of 24 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

This Report on Proposals has also been submitted to the **Technical Correlating Committee on Automatic Sprinkler Systems (TCC)**. Part 1 is a letter ballot on the TCC Actions, if any; and Part 2 is an informational letter ballot on the Report as a whole. The TCC, which consists of 19 voting members, voted as follows:

Since there were no TCC Actions, there is no ballot on Part 1.

Part 2: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Report IV: The Technical Committee proposes for adoption, amendments to NFPA 24, **Standard for the Installation of Private Fire Service Mains and Their Appurtenances**, 2007 edition. NFPA 24 is published in Volume 2 of the 2008 National Fire Codes and in separate pamphlet form.

The report on NFPA 24 has been submitted to letter ballot of the **Technical Committee on Residential Sprinkler Systems**, which consists of 24 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

This Report on Proposals has also been submitted to the **Technical Correlating Committee on Automatic Sprinkler Systems (TCC)** in two parts. Part 1 is a letter ballot on the TCC Actions, if any; and Part 2 is an informational letter ballot on the Report as a whole. The TCC, which consists of 19 voting members, voted as follows:

Part 1: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Part 2: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

Report V: The Technical Committee proposes for adoption, amendments to NFPA 291, **Recommended Practice for Fire Flow Testing and Marking of Hydrants**, 2007 edition. NFPA 291 is published in Volume 14 of the 2008 National Fire Codes and in separate pamphlet form.

The report on NFPA 291 has been submitted to letter ballot of the **Technical Committee on Private Water Supply Piping Systems**, which consists of 24 voting members. The results of the balloting, after circulation of any negative votes, can be found in the report.

This Report on Proposals has also been submitted to the **Technical Correlating Committee on Automatic Sprinkler Systems (TCC)** in two parts. Part 1 is a letter ballot on the TCC Actions, if any, and Part 2 is an informational letter ballot on the Report as a whole. The TCC, which consists of 19 voting members, voted as follows:

Since there were no TCC Actions, there is no ballot on Part 1.

Part 2: 17 voted affirmatively, and 2 ballots were not returned (S. Javeri, D. Stultz).

13R-1 Log #CP16 AUT-RSS
(Entire Document)

Final Action: Accept

Submitter: Technical Committee on Residential Sprinkler Systems,
Recommendation: Review entire document to: 1) Update any extracted material by preparing separate comments to do so, and 2) review and update references to other organizations documents, by preparing comments(s) as required.

Substantiation: To conform to the NFPA Regulations Governing Committee Projects.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-2 Log #1 AUT-RSS
(1.1)

Final Action: Reject

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Add a new Section to 1.1 as follows:

1.1* Scope.

This standard shall cover the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to and including four stories in height.

1.1.1 Where the residential occupancy is part of a mixed use occupancy in a single building, the residential occupancy shall be protected in accordance with NFPA 13.

1.1.2 Where a residential occupancy is considered a separate building as provided in the building code, the residential occupancy shall be protected in accordance with this standard or NFPA 13.

1.1.3 Incidental use areas in a residential occupancy shall be protected in accordance with this standard or NFPA 13.

Substantiation: There is significant debate between AHJ's, designers and contractors as to the appropriateness of an NFPA 13R design to the residential portion of a mixed-use occupancy. (A prime example is a two story apartment above a parking garage.) This language is drafted from the apparent intent of the current A.1.1. This language gives the appropriate code guidance to this ongoing question of the design application of NFPA 13R.

Committee Meeting Action: Reject

Committee Statement: This proposal is setting requirements where sprinkler systems are to be installed. The Task Group stated that this is a function of the building code and not NFPA 13R.

See Committee Action on Proposal 13R-58 (Log #37).

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-3 Log #19 AUT-RSS
(1.1)

Final Action: Reject

Submitter: Jon Nisja, Northcentral Regional Fire Code Development Committee

Recommendation: Revise to read:

1.1* Scope. This standard shall cover the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to and including four stories in height.

1.1.1 This standard does not apply to townhouses and row houses when such dwellings are fire separated from each other and classified as separate buildings per the adopted building code. (See NFPA 13D)

Substantiation: A proposal has been submitted to NFPA 13D to address this issue. NFPA 1, 101, and 5000 now require sprinkler protection in new residential occupancies. The scope of NFPA 13-D is currently limited to one- and two-family dwellings and the definition for one- and two-family dwellings states: "A building that contains not more than two dwelling units with independent cooking and bathroom facilities." (NFPA 5000). This definition seems to preclude the use of NFPA 13-D for townhouse or row house style residential occupancies. NFPA 5000 contains fire separation requirements for townhouses; these requirements are located under Chapter 22 One- and Two-Family Dwellings. This change clarifies that properly fire-separated townhouses or row houses can be protected with automatic sprinklers installed pursuant to NFPA 13-D. Implementation and enforcement problems are experienced if NFPA 13-D sprinkler systems cannot be used to protect these buildings as these buildings are often owner-occupied and no common spaces exist for the installation of NFPA 13 or NFPA 13-R sprinkler systems.

Committee Meeting Action: Reject

Committee Statement: The proposal precludes the application of NFPA 13R in townhouses and row houses which may in fact require this kind of protection by the local building code.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-4 Log #28 AUT-RSS
(1.1.1 (New))

Final Action: Accept in Principle

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

Recommendation: Add new text as follows:

New Section 1.1.1, "This standards is written with the assumption that the sprinkler system is being designed to protect against a single fire"

Substantiation: Questions frequently arise regarding multiple ignition points and the need to make the water supply bigger. The standard needs to state the assumption under which the design criteria has been developed.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept in Principle

Revise proposal as follows:

1.1.1 This standard assumes that the sprinkler system is designed to protect against a fire originating from a single ignition location.

Committee Statement: The revised text more clearly describes the intent that the fire originates from a single location and correlates with Proposal 13D-7 (Log #21). This will be renumbered based on the Committee Action on Proposal 13R-58 (Log #37)

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-5 Log #CP10 AUT-RSS
(1.2)

Final Action: Accept

Submitter: Technical Committee on Residential Sprinkler Systems,

Recommendation: Revise Chapter as follows:

1.2 Purpose

1.2.1 The purpose of this standard shall be to provide a sprinkler system that aids in the detection and control of residential fires and thus provides improved protection against injury, life loss, and property damage.

1.2.2 A sprinkler system designed and installed in accordance with this standard shall be expected to prevent flashover (total involvement) in the room of fire origin, where sprinklered, and to improve the chance for occupants to escape or be evacuated.

1.2.3 The layout, calculation, and installation of systems installed in accordance with this standard shall only be performed by people knowledgeable and trained in such systems.

Substantiation: Editorial revision breaking out multiple requirements.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-6 Log #2 AUT-RSS
(1.3)

Final Action: Reject

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Revise Section 1.3 as follows:

1.3 Retroactivity.

1.3.1 Retroactivity of this Standard

1.3.1.1 The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued. Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. ~~Where specified, the provisions of this standard shall be retroactive. In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate. The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.~~

1.3.1.2 Where specified, the provisions of this standard shall be retroactive.

1.3.1.3 In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate.

1.3.1.4 Facilities, equipment, structures, and installations, installed in accordance with this standard, shall be maintained in accordance with the installation edition of this standard.

1.3.1.5 The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

1.3.2 Retroactivity of Referenced Standards

1.3.2.1 Unless otherwise specified, the current provisions of the referenced standards shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of this code.

1.3.2.2 Where specified for existing occupancies, conditions or systems, the provisions of the referenced standards shall be retroactive.

1.3.2.3 Facilities, equipment, structures, and installations, installed in accordance with a referenced standard, shall be maintained in accordance with the installation edition of such standard.

1.3.2.4 In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of the current standards deemed appropriate.

Substantiation: The proposed change accomplishes three items. First, it reformats the existing retroactivity language into appropriate code text. The last two sentences of the retroactivity paragraph are actually exception to the first part. Second, the new 1.3.1.4 clarifies the intent that equipment shall be maintained in accordance with the installation edition. This directs the AHJ as to what edition of the standard to reference if there is a question as to the design of an existing installation. Lastly, this proposal adds a new 1.3.2 addressing the retroactivity of the referenced standards. A common situation is that an AHJ will attempt to enforce a current edition of a referenced standard on an existing installation. This language clarifies that referenced standards should be treated in a similar manner to the underlying standard.

Committee Meeting Action: Reject

Committee Statement: The current text provides authorities having jurisdiction concise information and flexibility in applying this standard. The retroactivity of referenced standards is outside the scope of this standard.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-7 Log #CP11 AUT-RSS
(1.3)

Final Action: Accept

Submitter: Technical Committee on Residential Sprinkler Systems,

Recommendation: Revise paragraph as follows:

1.3 Retroactivity.

1.3.1 The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued.

1.3.2 Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard.

1.3.3 Where specified, the provisions of this standard shall be retroactive. In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate.

1.3.4 The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

Substantiation: Editorial revision breaking out multiple requirements.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Comment on Affirmative:

ISMAN, K.: While we agree with what the committee is trying to accomplish, we believe that the "Retroactivity" clause was written by the Standards Council with the intent of being standardized in all NFPA documents. Section A.1.6.1.5 of the Manual of Style suggests that we should use the standardized wording. Should we propose a change to the Manual of Style?

13R-8 Log #3 AUT-RSS
(1.5)

Final Action: Accept in Principle

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Insert a new 1.5 and renumber the remaining:

1.5 New Technology.

1.5.1 Nothing in this standard shall be intended to restrict new technologies or alternate arrangements, provided the level of safety prescribed by this standard is not lowered.

1.5.2 Materials or devices not specifically designated by this standard shall be utilized in complete accord with all conditions, requirements, and limitations of their listings.

Substantiation: This language addresses the use of new technology. Currently, this exact language is contained in NFPA 13.

Committee Meeting Action: Accept in Principle

Replace 1.4 (Equivalency) with the current text in 1.5 of NFPA 13 on equivalency

Add new 1.6 (New Technology) using current text in 1.6 of NFPA 13.

Committee Statement: The NFPA 13 text on technology is identical to the text in the proposal.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-9 Log #53 AUT-RSS

Final Action: Accept in Principle

(3.3.x Fuel-Fired Equipment (New))

Submitter: Tom Wellen, American Fire Sprinkler Association (AFSA)

Recommendation: Add a new definition to Chapter 3 to read as follows:

Fuel-fired Equipment. An appliance that produces heat by utilizing electric energy or by burning fuel.

Substantiation: The standard references fuel-fired equipment and there is no definition. There have been questions if electric heating units are considered fuel-fired. A definition will clarify the issue such as that from NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances. The definition of heat-producing appliance is "An appliance that produces heat by utilizing electric energy or by burning fuel."

Committee Meeting Action: Accept in Principle

Revise proposed definition as follows:

Fuel-fired Heating Unit. An appliance that produces heat by utilizing electric energy or by burning fuel.

Committee Statement: The revision defines the term that is used in the standard.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 22 Negative: 1

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Explanation of Negative:

ORLOWSKI, S.: The proposed definition for fuel fired equipment is too broad in scope and does not accurately address any specific hazard. As I understand the proposed change would now require sprinkler coverage over any heat producing appliance that uses electricity that is concealed. This would now require the microwave that is usually recessed to be fitted with a sprinkler in the cabinet, the floor/ceiling space above recessed lighting would now have to be protected for these lights produce heat (that's why they require three inches of space between the housing and insulation), electric ranges are shielded by exhaust hoods, and what about those appliances that are protected under the kitchen cabinets like toasters and coffee makers.

Webster's dictionary defines "Fuel" as any material, as coal, oil, gas, wood, etc. burned to supply heat or power. Electrical appliances do not burn fuel, they use electricity. If there is a concern that some electrical appliances need to be protected with sprinklers, then I suggest that the proponent list the types of appliances that are hazardous, the data supporting that these appliances need to be better protected and submit a proposal to address those specific items. To approve this new definition as submitted will inadvertently require several of the electric appliances that I have mentioned and others to be fitted with sprinkler protection that is unwarranted.

13R-10 Log #49 AUT-RSS

Final Action: Reject

(3.3.4 Dwelling Unit and Chapter 2)

Submitter: Marcelo M. Hirschler, GBH International

Recommendation: Revise as follows:

3.3.4 Dwelling Unit. One or more rooms, arranged for the use of one or more individuals living together, as in a single housekeeping unit, that normally have cooking, living, sanitary, and sleeping facilities providing complete, independent living facilities, including permanent provisions for living, sleeping, eating, cooking, and sanitation. (NFPA 5000).

Also, add a reference to NFPA 5000 into Chapter 2.

Substantiation: The existing definition is different from the NFPA preferred definition, contained in NFPA 5000. The term "dwelling unit" is extensively used in NFPA 13R, but the preferred definition would be equally applicable to the usage within NFPA 13. It is therefore recommended, in order to improve consistency within NFPA documents that the preferred definition be extracted from NFPA 5000 as shown.

I am the chairman of the NFPA Advisory Committee on the Glossary on Terminology. The committee was created by NFPA Standards Council to provide consistency in terminology throughout the NFPA documents. The committee has not had time to review all of my recommendations for NFPA 13, NFPA 13D and NFPA 13R definitions of terms. Therefore, this proposal is being submitted in my own name only.

Committee Meeting Action: Reject

Committee Statement: The submitter's definition is too restrictive for the purposes of NFPA 13.

Some dwelling units do not have complete independent living facilities.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-11 Log #50 AUT-RSS
(3.3.7.2 Residential Sprinkler)

Final Action: Accept

Submitter: Marcelo M. Hirschler, GBH International

Recommendation: Revise as follows:

3.3.7.2 Residential Sprinkler. A type of fast-response sprinkler having a thermal element with an RTI of 50 (meter-seconds)^{1/2} or less, that has been specifically investigated for its ability to enhance survivability in the room of fire origin, and that is listed for use in the protection of dwelling units.

Substantiation: The definition in NFPA 13 is the NFPA preferred definition. However, the definition contained in NFPA 13R and in NFPA 13D is equivalent to that and more generic.

The definition in NFPA 13 reads as follows:

Residential sprinkler. A type of fast-response sprinkler that meets the criteria of 3.6.1(a)(1) that has been specifically investigated for its ability to enhance survivability in the room of fire origin and is listed for use in the protection of dwelling units.

It is therefore recommended that the NFPA 13R and NFPA 13D definitions be retained and that the NFPA 13 definition be revised to be identical to the one in NFPA 13R and NFPA 13D which basically involves replacing the issue of the "criteria of 3.6.1(a)(1) by the actual criteria in terms of the response time index (RTI). This is being done in order to improve consistency within NFPA documents.

I am the chairman of the NFPA Advisory Committee on the Glossary on Terminology. The committee was created by NFPA Standards Council to provide consistency in terminology throughout the NFPA documents. The committee has not had time to review all of my recommendations for NFPA 13, NFPA 13D and NFPA 13R definitions of terms. Therefore, this proposal is being submitted in my own name only.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-12 Log #51 AUT-RSS
(3.3.8 Sprinkler System)

Final Action: Reject

Submitter: Marcelo M. Hirschler, GBH International

Recommendation: Revise as follows:

3.3.8* Sprinkler System. For fire protection purposes, an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. ~~The installation includes one or ore automatic water supplies. The portion of the sprinkler system aboveground is a network of specially sized or hydraulically designed piping installed in a building, structure, or area, generally overhead, and to which sprinklers are attached in a systematic pattern. The valve controlling each system riser is located in the system riser or its supply piping. Each sprinkler system riser includes a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area (NFPA 13).~~

A.3.3.8 Sprinkler System. The installation includes one or more automatic water supplies. The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure, or area generally overhead, and to which sprinklers are attached in a systematic pattern. The valve controlling each system riser is located in the system riser or its supply piping. Each sprinkler system riser includes a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

Substantiation: The definition in NFPA 13 is the NFPA preferred definition. However, the definitions contained in NFPA 13D and in NFPA 13R both appear to address some aspects that are different.

The definition in NFPA 13 reads as follows:

NFPA 13: Sprinkler System. For fire protection purposes, an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The installation includes at least one automatic water supply which supplies one or more systems. The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure, or area, generally overhead, and to which sprinklers are attached in a systematic pattern. Each system has a control valve located in the system riser or its supply piping. Each sprinkler system includes a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

It is preferred to use definitions that contain single sentences and obtain consistency. It is recommended, therefore, that the definitions in NFPA 13 and in NFPA 13R and in NFPA 13D all be amended so that they are identical and include only the first sentence. All additional information should be included in annex notes. The definitions should all be described as originating in NFPA 13.

This is being done in order to improve consistency within NFPA documents. I am the chairman of the NFPA Advisory Committee on the Glossary on Terminology. The committee was created by NFPA Standards Council to provide consistency in terminology throughout the NFPA documents. The committee has not had time to review all of my recommendations for NFPA 13, NFPA 13D and NFPA 13R definitions of terms. Therefore, this proposal is being submitted in my own name only.

Committee Meeting Action: Reject

Committee Statement: Current definition language is necessary in the body of the standard.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-13 Log #48 AUT-RSS
(3.3.11.2 Control Valve)

Final Action: Accept

Submitter: Marcelo M. Hirschler, GBH International

Recommendation: Retain the existing definition and do not adopt the preferred definition:

3.3.11.2 Control Valve. An indicating valve employed to control (shut) a supply of water to a sprinkler system.

Substantiation: The existing definition is different from the NFPA preferred definition, contained in NFPA 25. The term "control valve" is extensively used in NFPA 13R, and it appears that the preferred definition would not be as equally applicable to the usage within NFPA 13R as the existing one.

The preferred definition, from NFPA 25, reads as follows:

Control Valve. (preferred) NFPA 25-2002 A valve controlling flow to water-based fire protection systems. Control valves do not include hose valves, inspector's test valves, drain valves, trim valves for dry pipe, preaction and deluge valves, check valves, or relief valves.

It is therefore recommended, in spite of the preference to improve consistency within NFPA documents that the preferred definition not be adopted by NFPA 13D but that the current definition be retained and that Standards Council be informed that a secondary definition is preferred by the NFPA 13D committee.

I am the chairman of the NFPA Advisory Committee on the Glossary on Terminology. The committee was created by NFPA Standards Council to provide consistency in terminology throughout the NFPA documents. The committee has not had time to review all of my recommendations for NFPA 13, NFPA 13D and NFPA 13R definitions of terms. Therefore, this proposal is being submitted in my own name only.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-14 Log #30 AUT-RSS
(4.2)

Final Action: Accept in Principle

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

Recommendation: Revise text as follows:

Revise the definition of a compartment to agree with NFPA 13.

Substantiation: There were changes to the definition of "compartment" in the 2007 edition of NFPA 13 that were not picked up by NFPA 13R. There will likely be more changes in the 2010 edition due to questions that have already arisen on the application of the new definition. Whatever definition ends up in NFPA 13 should be consistent with NFPA 13R.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept in Principle

Revise proposed definition from NFPA 13 as follows:

Compartment. A space completely enclosed by walls and a ceiling. Each wall in the compartment. The compartment enclosure is permitted to have openings in walls to an adjoining space if the openings have a minimum lintel depth of 8 in. (203 mm) from the ceiling and the total width of the openings in a single wall does not exceed 8 ft (2.44 m) in width. A single opening of 36 in. (914 mm) or less in width without a lintel is permitted when there are no other openings to adjoining spaces.

Committee Statement: The compartment definition is excessive for NFPA 13R systems. The requirement to limit openings to 8 ft total could require the installation of sprinklers in areas such as closets and small bathrooms that exceeds the intent of the standard.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-15 Log #29 AUT-RSS
(4.2 and Chapter 3 Various Definitions)

Final Action: Accept

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

Recommendation: Revise text as follows:

Delete section 4.2 and place the definitions in Chapter 3.

Substantiation: These are definitions and they belong in the definition chapter.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Sequence 13R-16 was not used.

13R-17 Log #40 AUT-RSS **Final Action: Reject**
(4.5.1 (New))

Submitter: Dana Haagensen, Dana R. Haagensen Consulting
Recommendation: Add a new 4.5.1 to read: “Listed devices and materials shall have in the manufacturer’s informational sheets a dedicated section that identifies only the instructions/conditions that are additional to or modify the requirements of this standard.”

Substantiation: It is becoming more and more difficult for designers, installers and AHJ’s to “weed” through the cut sheets to determine the special conditions on using/installing the product. I have reviewed several projects where the installation had to be completely redone due to the installer missing a condition or two specified by the manufacturer/listing. Some of the cut sheets for specially listed products are over 20 pages.

Committee Meeting Action: Reject

Committee Statement: This is a Certification Agency responsibility and this issue will be considered at the next industry/certification agency meeting. The current text addresses the basic requirement. However, there is no substitution for studying and understanding the details of specially listed products.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-18 Log #39 AUT-RSS **Final Action: Reject**
(4.6 (New))

Submitter: Dana Haagensen, Dana R. Haagensen Consulting
Recommendation: Add a new 4.6 to read: “4.6 System Arrangement. In townhouse style buildings where there are no common spaces, each dwelling unit shall have its own dedicated sprinkler system.”

Substantiation: Having a single system for townhouse style buildings likely requires the entering of someone’s home by a responding fire department for an incident in someone else’s home. In these style buildings, there is no common area in which to locate the riser room other than a virtual common space created by the condominium documents.

Committee Meeting Action: Reject

Committee Statement: It is the intent of this committee that Townhouses as defined by the building codes with adequate fire separation for no more than two dwelling units are addressed in NFPA 13D. If these provisions are not met then the building would be protected in accordance with NFPA 13R. In that case it is not the intent of the committee to require individual sprinkler systems in each unit.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-19 Log #41 AUT-RSS **Final Action: Reject**
(Chapter 5)

Submitter: Dana Haagensen, Dana R. Haagensen Consulting
Recommendation: Review specially listed components addressed by this chapter (i.e. plastic pipe) and create new sections that standardize generic conditions specified by all of the manufacturer/listings.

Substantiation: It is becoming more and more difficult for designers, installers and AHJ’s to “weed” through the cut sheets to determine the special conditions on using/installing the product. I have reviewed several projects where the installation had to be completely redone due to the installer missing a condition or two specified by the manufacturer/listing. Some of the cut sheets for specially listed products are over 20 pages.

Committee Meeting Action: Reject

Committee Statement: No recommended language was provided.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-20 Log #31 AUT-RSS **Final Action: Accept**
(5.2)

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

Recommendation: Revise text as follows:

Re-title this section “Aboveground Piping and Equipment”

Substantiation: The current title of “Piping” for this section is inappropriate. First of all, the information in this section applies to more types of equipment than just pipe. The section also deals with fittings, valves, drains, etc.

Second, the information in this section only applies to aboveground situations. With the title being just “piping”, some AHJ’s have tried to apply these rules to underground situations, which is a problem because the rules don’t apply to underground. For example, section 5.2.1.2 requires pipe to be rated for 175 psi, which is onerous for underground pipe and conflicts with section 5.1.3.

This proposal was approved by the National Fire Sprinkler Association’s Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-21 Log #32 AUT-RSS **Final Action: Accept**
(5.2.12.5 and A.5.2.12.5 (New))

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

Recommendation: Add a new section 5.2.12.5 and annex note as follows:

“5.2.12.5* Backflow preventers shall be listed for fire protection service. Backflow devices 2 inch (50mm) in size or smaller shall be permitted in accordance with section 6.7.1.5”

“A.5.2.12.5 Devices that are “UL Classified” meet the definition of “listed” in accordance with this standard.”

Substantiation: The use of listed devices has always been assumed, but has never been expressly stated. The annex note is needed because many AHJ’s don’t understand the difference between UL “Listing” and UL “Classification”. As far as the NFPA standards are concerned, both meet the definition of listing, but that needs to be explained to many AHJ’s.

This proposal was approved by the National Fire Sprinkler Association’s Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-22 Log #33 AUT-RSS **Final Action: Accept**
(5.3, A.5.2.1 and A.5.3.1)

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

Recommendation: Insert a new section 5.3 and annex note as follows and renumber existing section 5.3 as 5.4:

“5.3 Underground Pipe

5.3.1* Any type of pipe or tube acceptable under the plumbing code for underground supply pipe shall be acceptable as underground supply for fire sprinkler system when installed between the point of connection and the system riser.

A.5.3.1 For underground pipes 4 inches in size or more (nominal dimensions), NFPA 24 should be used for the installation rules. For pipes under 4 inch (nominal) dimensions, NFPA 24 is not necessary.”

Then delete annex note A.5.2.1

Substantiation: Currently the standard only has requirements for pipe. Since it does not make any distinction between aboveground or underground pipe, the case could be made that the aboveground rules should apply to the underground, which would be a bad decision. The rules for underground should be explicit in the body of the standard and not hidden in the annex. As it currently stands, the annex is poorly worded because it is a requirement using the word “shall.”

The new annex is needed to help clarify when NFPA 24 is applicable and when its requirements don’t make much sense.

This proposal was approved by the National Fire Sprinkler Association’s Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-23 Log #27 AUT-RSS **Final Action: Accept**
(Chapter 6)

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

Recommendation: Revise text as follows:

Proposal: Revise the text by adding chapters so that it flows in a more logical order such as the following:

Chapter 6 Installation Requirements

6.1 System Protection Area Limitations.

6.1.1 (old 6.1.1.1) The maximum floor area on any one floor to be protected by sprinklers supplied by any one sprinkler system riser or combined system riser shall not exceed 52,000 ft² (4831 m²).

6.1.2 (old 6.1.1.2) The floor area occupied by mezzanines shall not be included in the area limits of 6.1.1.

6.2 Use of Sprinklers.

6.2.1 (old 6.7.7.1) Inside the Dwelling Units.

6.2.1.1 (old 6.7.7.1.1) Listed residential sprinklers shall be used unless another type is permitted by 6.2.1.3 or 6.2.1.4.

6.2.1.2 (old 6.7.7.1.2) Residential sprinklers shall not be used on systems other than wet pipe systems unless specifically listed for use on that particular type of system.

6.2.1.3 (old 6.7.7.1.3) Listed quick-response sprinklers shall be permitted to be installed in dwelling units meeting the definition of a compartment, as defined in Section 4.2, where no more than four sprinklers are located in the dwelling unit. Where quick-response sprinklers (including extended coverage quick-response sprinklers) are used, the density/area requirement shall be a minimum of 0.1 gpm/ft² (4.1 mm/min) over the entire dwelling unit. Where extended coverage quick-response sprinklers are used, the flow shall be sufficient to meet the listing of the sprinklers at the spacing for which they are being used.

6.2.1.4 (old 6.7.7.1.4) Quick-response sprinklers shall be permitted to be used in mechanical closets. Such sprinklers shall be capable of discharging a minimum of 0.1 gpm/ft² (4.1 mm/min).

6.2.2 (old 6.7.7.2) Outside the Dwelling Units.

6.2.2.1 (old 6.7.7.2.1) Sprinklers outside of the dwelling units shall be quick-response, and selection shall be based on the requirements of NFPA 13, Standard for the Installation of Sprinkler Systems, except where permitted by 6.2.2.2.

6.2.2.2 (old 6.7.7.2.2) Residential sprinklers shall be permitted to be used in corridors leading to dwelling units and in areas covered by 7.2.2, 6.4.7, and 7.3.3.

6.2.3 (old 6.7.7.1.5) Temperature Ratings.

6.2.3.1* (old 6.7.7.1.5.1*) Sprinklers installed where maximum ambient ceiling temperatures do not exceed 100°F (38°C) shall be ordinary temperature-rated sprinklers unless modified by 6.2.3.3.

6.2.3.2* (old 6.7.7.1.5.2*) Sprinklers installed where maximum ambient ceiling temperatures are between 101°F and 150°F (39°C and 66°C) shall be intermediate temperature-rated sprinklers unless modified by 6.2.3.3.

6.2.3.3 (old 6.7.7.1.5.3) The following practices shall be observed when installing residential sprinklers unless higher expected ambient temperatures require a higher temperature rating.

Items (A) through (C) unchanged

Table 6.2.3.3 (old Table 6.7.7.1.5.3) Minimum Distances for Ordinary and Intermediate Temperature

6.2.3.4 (old 6.7.7.1.5.4) All sprinklers within a compartment shall have the same temperature classification except where required by 6.2.3.3 for a specific location.

6.2.3.5 (old 6.7.7.1.5.5) Sprinklers shall be positioned so that the response time and discharge are not unduly affected by obstructions such as ceiling slope, beams, or light fixtures. Small areas created by architectural features such as planter box windows, bay windows, and similar features shall be evaluated as follows:

Items (1) through (3) to remain unchanged

6.2.3.6* (old 6.7.7.1.5.6*) Except as otherwise permitted in 6.2.3.5 and 6.2.3.7, residential sprinklers shall provide, in conjunction with survivability enhancement, complete coverage of the floor area within the compartment. [***Note that this fixes a situation that we think is a typo in the sections that it references***]

6.2.3.7 (old 6.7.7.1.5.7) Small potentially blocked or shadowed floor areas shall be permitted on a horizontal plane in compartments of 800 ft² (74.3 m²) or less as long as all of the following conditions are met. For purposes of simplified calculations, assume in this theoretical case that the water discharging from a sprinkler travels in a straight line only.

Items (1) through (3) remain unchanged.

6.2.4 (old 6.8.1.5.4) Ceiling Pockets.

6.2.4.1 (old 6.8.1.5.4.1) Sprinklers shall be required in all ceiling pockets.

6.2.4.2 (old 6.8.1.5.4.2) The requirement of 6.2.4.1 shall not apply where all of the following requirements are met:

Item (1) through (5) remain unchanged

6.3 Quick Response Sprinklers

6.3.1 (old 6.7.7.3) Quick-Response Sprinklers. Where quick-response sprinklers are installed in accordance with [****] 6.2.1.3, 6.2.1.4, or 6.2.2.1, the maximum allowable spacing, minimum allowable spacing, and distance from the ceiling shall be in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

6.4 Residential Sprinklers

6.4.1 (old 6.8.1.3.1) Residential Sprinklers That Have Been Listed with Specific Coverage Criteria. Sprinklers shall be installed in accordance with the coverage criteria specified by the listing.

6.4.2 (old 6.8.1.3.1.1) Sloped Ceilings.

(A) Where the ceiling is sloped, the maximum S dimension shall be measured along the slope of the ceiling to the next sprinkler as shown in Figure 6.4.2(A).

Figure 6.4.2(A) (old FIGURE 6.8.1.3.1.1(A)) Measuring S Dimension

(B) The sprinklers shall maintain the minimum listed spacing, but no less than 8 ft (2.44 m), measured in the plan view from one sprinkler to another as shown in Figure 6.4.2(A).

6.4.3 (old 6.8.1.3.1.2) Sprinklers shall be installed in accordance with their listing where the type of ceiling configuration is referenced in the listing.

6.4.4* (old 6.8.1.3.1.3*) Where construction features or other special conditions exist that are outside the scope of sprinkler listings, listed sprinklers shall be permitted to be installed beyond their listing limitations.

6.4.5 (old 6.8.1.4) Operating Pressure. The minimum operating pressure of any sprinkler shall be the higher of the minimum operating pressure specified by the listing or 7 psi (0.5 bar).

6.4.6 (old 6.8.1.5) Position of Residential Sprinklers.

6.4.6.1 (old 6.8.1.5.1) Pendent and Upright Sprinklers.

6.4.6.1.1 (old 6.8.1.5.1.1) Pendent and upright sprinklers that have not been listed with specific positioning criteria shall be positioned so that the deflectors are within 1 in. to 4 in. (25.4 mm to 102 mm) from the ceiling.

6.4.6.1.2 (old 6.8.1.5.1.2) Pendent and upright sprinklers that have been listed with specific positioning criteria shall be positioned in accordance with the listing.

6.4.6.2 (old 6.8.1.5.2) Sidewall Sprinklers.

6.4.6.2.1 (old 6.8.1.5.2.1) Sidewall sprinklers that have not been listed with specific positioning criteria shall be positioned so that the deflectors are within 4 in. to 6 in. (102 mm to 152 mm) from the ceiling.

6.4.6.2.2 (old 6.8.1.5.2.2) Sidewall sprinklers that have been listed with specific positioning criteria shall be positioned in accordance with the listing.

6.4.6.3* (old 6.8.1.5.3*) Obstructions to Residential Sprinklers.

6.4.6.3.1 (old 6.8.1.5.3.1) Closets. In all closets, including those closets housing mechanical equipment, that are not larger than 400 ft³ (11.33 m³) in size, a single sprinkler at the highest ceiling space in the closet shall be sufficient without regard to obstructions.

6.4.6.3.2 (old 6.8.1.5.3.2) Pendent Sprinklers.

Items (A) through (D) remain unchanged

6.4.6.3.3 (old 6.8.1.5.3.3) Sidewall Sprinklers.

Items (A) through (D) remain unchanged

6.4.6.3.4 (old 6.8.1.5.3.4) Continuous Obstructions to Pendent Sprinklers.

Items (A) through (D) remain unchanged

Table 6.4.6.3.4(B) (old Table 6.8.1.5.3.4(B)) Position of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers)

Figure 6.4.6.3.4(B) (old FIGURE 6.8.1.5.3.4(B)) Position of Sprinklers to Avoid Obstructions to Discharge (Residential Upright and Pendent Spray Sprinklers).

Figure 6.4.6.3.4(C) (old FIGURE 6.8.1.5.3.4(C)) Obstructions Against Walls (Residential Upright and Pendent Spray Sprinklers).

6.4.6.3.5 (old 6.8.1.5.3.5) Continuous Obstructions to Sidewall Sprinklers.

Items (A) through (C) remain unchanged

Figure 6.4.6.3.5(B)(a) (old FIGURE 6.8.1.5.3.5(B)(a)) Positioning of Sprinklers to Avoid Obstructions (Residential Sidewall Sprinklers)

Figure 6.4.6.3.5(B)(b) (old FIGURE 6.8.1.5.3.5(B)(b)) Positioning of Sprinklers to Avoid Obstructions Along the Wall (Residential Sidewall Sprinklers)

Table 6.4.6.3.5(B)(a) (old Table 6.8.1.5.3.5(B)(a)) Positioning of Sprinklers to Avoid Obstructions (Residential Sidewall Sprinklers)

Table 6.4.6.3.5(B)(b) (old Table 6.8.1.5.3.5(B)(b)) Positioning of Sprinklers to Avoid Obstructions Along the Wall (Residential Sidewall Sprinklers)

6.4.6.3.6 (old 6.8.1.5.3.6) Soffits and Cabinets. Where soffits are used for the installation of sidewall sprinklers, the sprinklers and soffits shall be installed in accordance with 6.4.6.3.6(A), 6.4.6.3.6(B), or 6.4.6.3.6(C).

Items (A) through (C) remain unchanged

6.4.7 Use of Residential Sprinklers Outside of Dwelling Units

6.4.7.1 (old 6.8.2.3) The following types of spaces are permitted to be protected by residential sprinklers where they have flat, smooth ceilings and are protected in accordance with the requirements for residential sprinklers:

Items (1) through (6) remain unchanged

6.5 Special Situations

6.5.1 (old 6.1.2) Return Bends.

6.5.1.1 (old 6.1.2.1) Unless the requirements of 6.5.1.2 or 6.5.1.3 are met, return bends shall be used where pendent sprinklers are supplied from a raw water source, a mill pond, or open-top reservoirs.

6.5.1.2 (old 6.1.2.2) Return bends shall be connected to the top of branch lines in order to avoid accumulation of sediment in the drop nipples in accordance with Figure 6.5.1.2.

Figure 6.5.1.2 (old FIGURE 6.1.2.2) Return Bend Arrangement

6.5.1.3 (old 6.1.2.3) Return bends shall not be required where dry-pendent sprinklers are used.

6.5.2 (old 6.1.3) Dry Pipe Underground.

6.5.2.1 (old 6.1.3.1) Where necessary to place pipe that will be under air pressure underground, the pipe shall be protected against corrosion.

6.5.2.2 (old 6.1.3.2) Unprotected cast-iron or ductile-iron pipe shall be permitted where joined with a gasketed joint listed for air service underground.

6.6 (old 6.9) Location of Sprinklers.

6.6.1 (old 6.9.1) Sprinklers shall be installed in all areas except where omission is permitted by 6.6.2 through 6.6.7.

6.6.2* (old 6.9.2*) Sprinklers shall not be required in bathrooms where the bathroom area does not exceed 55 ft² (5.1 m²).

6.6.3 (old 6.9.3) Except where specified in 6.6.4, sprinklers shall not be required in clothes closets, linen closets, and pantries within dwelling units that meet all of the following conditions:

Items (1) through (3) remain unchanged

6.6.4 (old 6.9.4) Sprinklers shall be installed in any closet used for heating and air-conditioning equipment.

6.6.5 (old 6.9.5) Sprinklers shall not be required in any porches, balconies, corridors, and stairs that are open and attached.

6.6.6* (old 6.9.6*) Sprinklers shall not be required in attics, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to and containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel-fired equipment.

6.6.7 (old 6.9.7) Sprinklers shall not be required in closets on exterior balconies, regardless of size, as long as there are no doors or unprotected penetrations from the closet directly into the dwelling unit.

6.7 Piping

6.7.1 Installation of Piping

6.7.1.1 (old 6.5.2) Where solvent cement is used as the pipe and fittings bonding agent, sprinklers shall not be installed in the fittings prior to the fittings being cemented in place.

6.7.1.2 (old 6.5.3) In existing buildings, CPVC cut-ins to active fire sprinkler systems shall follow the manufacturer's recommended cut-in procedure.

6.7.2 (old 6.1.4) Protection of Piping.

6.7.2.1 (old 6.1.4.1) Protection of Piping Against Freezing.

6.7.2.1.1 (old 6.1.4.1.1) See 5.3.2 for protection of pipe from freezing.

6.7.2.1.2* (old 6.1.4.1.2*) Where aboveground water-filled supply pipes, risers, system risers, or feed mains pass through open areas, cold rooms, passageways, or other areas exposed to freezing temperatures, the pipe shall be protected against freezing by insulating coverings, frostproof casings, or other reliable means capable of maintaining a minimum temperature between 40°F (4°C) and 120°F (48.9°C).

6.7.2.2 (old 6.1.4.2) Protection of Piping Against Corrosion.

6.7.2.2.1 (old 6.1.4.2.1) Where corrosive conditions are known to exist due to moisture or fumes from corrosive chemicals, or both, special types of fittings, pipes, and hangers that resist corrosion shall be used, or a protective coating shall be applied to all unprotected exposed surfaces of the sprinkler system.

6.7.2.2.2 (old 6.1.4.2.2) Where water supplies are known to have unusual corrosive properties and threaded or cut-groove steel pipe is to be used, wall thickness shall be in accordance with Schedule 30 [in sizes 8 in. (200 mm) or larger] or Schedule 40 [in sizes less than 8 in. (200 mm)].

6.7.2.2.3 (old 6.1.4.2.3) Where corrosive conditions exist or piping is exposed to the weather, corrosion-resistant types of pipe, fittings, and hangers or protective corrosion-resistant coatings shall be used.

6.7.2.2.4 (old 6.1.4.2.4) Where steel pipe is used underground, the pipe shall be protected against corrosion.

6.7.2.3 (old 6.1.4.3) Protection of Piping in Hazardous Areas.

6.7.2.3.1 (old 6.1.4.3.1) Private service main aboveground piping shall not pass through hazardous areas and shall be located so that it is protected from mechanical and fire damage.

6.7.2.3.2 (old 6.1.4.3.2) Private service main aboveground piping shall be permitted to be located in hazardous areas protected by an automatic sprinkler system.

6.7.2.4 (old 6.1.4.4) Protection of Risers Subject to Mechanical Damage.

Sprinkler risers subject to mechanical damage shall be protected by steel posts, concrete barriers, or other approved means.

6.8 (old 6.7.1) Valves.

6.8.1 (old 6.7.1.1) A single control valve arranged to shut off both the domestic system and the sprinkler system shall be installed for systems with common sprinkler/domestic mains unless a separate shutoff valve for the sprinkler system is installed in accordance with 6.8.2.

6.8.2 (old 6.7.1.2) The sprinkler system piping shall not have a separate control valve installed unless supervised by one of the following methods:

Items (1) through (3) remain unchanged

6.8.3 (old 6.7.1.3) A separate shutoff valve shall be installed for the domestic water supply in installations having a common sprinkler/domestic main.

6.8.4 (old 6.7.1.4) System control or shutoff valves shall be of the slow-closing type unless they meet the requirements of 6.8.5.

6.8.5 (old 6.7.1.5) System control or shutoff valves on backflow prevention devices that are 2 in. (50 mm) or less in nominal size shall not be required to comply with 6.8.4.

6.8.6 (old 6.7.1.6) A listed backflow prevention assembly shall be considered a check valve, and an additional check valve shall not be required.

6.9* (old 6.7.2*) Drains.

6.9.1 (old 6.7.2.1) Each sprinkler system shall have a drain on the system side of the control valve.

6.9.2 (old 6.7.2.2) The drain pipe shall be at least 1 in. (25 mm) nominal diameter and shall be arranged so that it can drain all portions of the system.

6.9.3 (old 6.7.2.3) A valve shall be installed in the drain piping.

6.9.4 (old 6.7.2.4) A ½ in. (13 mm) drain shall be installed for each trapped portion of a dry system that is subject to freezing temperatures.

6.10* (old 6.7.3*) Test Connection.

6.10.1 (old 6.7.3.1 and 6.5.4) Each sprinkler system shall have a test connection. The test connection shall be installed so that it permits the testing of the alarm mechanisms.

6.10.2 (old 6.7.3.2) The test connection pipe shall be at least 1 in. (25 mm) nominal diameter and terminate in an orifice equal to or smaller than the same size as the smallest sprinkler installed in the system.

6.10.3 (old 6.7.3.3) A valve shall be installed in the test connection piping.

6.10.4 (old 6.7.3.4) When the drain required in 6.9.1 is arranged as a test connection, a separate test connection shall not be required.

6.11* (old 6.7.4*) Fire Department Connection.

6.11.1 (old 6.7.4.1) At least one fire department connection shall be provided for buildings, accessible by a fire department, that exceed 2000 ft² (186 m²) or are more than a single story.

6.11.2 (old 6.7.4.2) Fire department connections shall be at least 1½ in. (38 mm).

6.11.3 (old 6.7.4.3) Each fire department connection to sprinkler systems

shall be designated by a sign having raised or engraved letters at least 1 in. (25.4 mm) in height on plate or fitting reading service design — for example, AUTOSPKR., OPEN SPKR., AND STANDPIPE.

6.11.4 (old 6.7.4.4) The piping between the check valve and the outside hose coupling shall be equipped with an approved automatic drip in areas subject to freezing.

6.12 (old 6.7.5) Pressure Gauges.

6.12.1 (old 6.7.5.1) A pressure gauge shall be provided to indicate pressure of the supply.

6.12.2 (old 6.7.5.2) A pressure gauge shall be provided to indicate pressure of the system.

6.13* (old 6.7.6*) Piping Support. Piping hanging and bracing methods shall comply with NFPA 13, Standard for the Installation of Sprinkler Systems.

6.14 (old 6.7.7.4) Open-Grid Ceilings. Open-grid ceilings shall be installed only as permitted by NFPA 13, Standard for the Installation of Sprinkler Systems.

6.15 (old 6.7.7.5) Drop-Out Ceilings. Drop-out ceilings shall be permitted to be installed beneath sprinklers where ceilings are listed for that service and are installed in accordance with their listings.

6.16 (old 6.7.8) Alarms.

6.16.1 (old 6.7.8.1) A local waterflow alarm shall be provided on all sprinkler systems.

6.16.2 (old 6.7.8.2) Where a building fire alarm system is provided, the local waterflow alarms shall be connected to the building fire alarm system.

6.16.3 (old 6.7.8.3) Waterflow alarms shall be installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

6.16.4 (old 6.7.8.4) Where a building fire alarm system is provided, the building fire sprinkler system shall not be required to be zoned by floor.

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-24 Log #42 AUT-RSS

Final Action: Reject

(Chapter 6)

Submitter: Dana Haagensen, Dana R. Haagensen Consulting

Recommendation: Review specially listed components addressed by this chapter (i.e. residential sprinklers under sloped ceilings) and create new sections that standardize generic conditions specified by all of the manufacturer/listings.

Substantiation: It is becoming more and more difficult for designers, installers and AHJ's to "weed" through the cut sheets to determine the special conditions on using/installing the product. I have reviewed several projects where the installation had to be completely redone due to the installer missing a condition or two specified by the manufacturer/listing. Some of the cut sheets for specially listed products are over 20 pages.

Committee Meeting Action: Reject

Committee Statement: No specific recommendation made in the proposal.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-25 Log #22 AUT-RSS **Final Action: Reject**
(6.1.4.5 (New))

Submitter: James Everitt, Western Regional Fire Code Development Committee

Recommendation: Add a new section to read:

6.1.4.5 Protection of System Riser Piping.
6.1.4.5.1 When located within buildings, system risers in buildings two or more stories shall be located in enclosed exit stairways or shall be protected by a degree of fire resistance equal to that required for enclosed exit stairways in the building in which they are located.

6.1.4.5.2 Where exit stairways are not required to be enclosed in fire-rated construction, system risers shall be permitted to be installed without the fire resistance required by 6.1.4.5.

Substantiation: In buildings that are two or more stories, no direction is given where the system risers should be located. The concern is that the system risers can be located in unprotected area and in some instances non-accessible areas. With this proposal we are trying to correlate the location of system risers in stairwells, like that in NFPA 14.

Committee Meeting Action: Reject

Committee Statement: The proposal does not adequately consider the various formats found in residential construction. This proposal would require 2-hour protection of a 30-minute water supply.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-26 Log #13 AUT-RSS **Final Action: Accept**
(6.7.1.7)

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Add text to read as follows:

A listed backflow prevention assembly shall be considered a control valve, and an additional control valve shall not be required.

Substantiation: Currently the standard recognizes that the check valves in the backflow assembly can serve as the system check valve (6.7.1.6). There is no reason why the shut off valves on the backflow cannot be utilized as the system control valve as well

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-27 Log #26 AUT-RSS **Final Action: Reject**
(6.7.6)

Submitter: Ryan Peterson, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Delete section 6.7.6 and add new chapter with hanger and/or restraint requirements.

Substantiation: In the last cycle, an attempt was made to make NFPA 13R more of a stand alone document. The requirement for hangers is currently referenced to NFPA 13 (6.7.6). The Residential Committee should consider extracting relevant information from NFPA 13 and/ or writing their own rules for hangers. Some of the requirements from NFPA 13, which is a property protection based standard, may be too restrictive or not in line with the philosophy of NFPA 13R.

Committee Meeting Action: Reject

Committee Statement: No specific language was proposed and the committee feels that it is appropriate to reference NFPA 13 for guidance on this issue.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-28 Log #CP13 AUT-RSS **Final Action: Accept**
(6.7.7.1.3)

Submitter: Technical Committee on Residential Sprinkler Systems,

Recommendation: Revise paragraph as follows:

6.7.7.1.3 Listed quick-response sprinklers shall be permitted to be installed in dwelling units meeting the definition of a compartment, as defined in Section 4.2, where no more than four sprinklers are located in the dwelling unit.

6.7.7.1.3.1 Where quick-response sprinklers (including extended coverage quick-response sprinklers) are used, the density/area requirement shall be a minimum of 0.1 gpm/ft² (4.1 mm/min) over the entire dwelling unit.

6.7.7.1.3.2 Where extended coverage quick-response sprinklers are used, the flow shall be sufficient to meet the listing of the sprinklers at the spacing for which they are being used.

Substantiation: Editorial revision breaking out multiple requirements.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-29 Log #CP14 AUT-RSS **Final Action: Accept**
(6.7.7.1.4)

Submitter: Technical Committee on Residential Sprinkler Systems,

Recommendation: Revise paragraph as follows:

6.7.7.1.4 Quick-response sprinklers discharging a minimum of 0.1 gpm/ft² (4.1 mm/min) shall be permitted to be used in mechanical closets. Such sprinklers shall be capable of discharging a minimum of 0.1 gpm/ft² (4.1 mm/min).

Substantiation: Editorial revision.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Comment on Affirmative:

HOPKINS, M.: The proposal should be "accepted in principle in part." The entire second sentence should be deleted because it is redundant with the first sentence.

6.7.7.1.4 Quick-response sprinklers that are capable of discharging a minimum of 0.1 gpm/ft² (4.1 mm/min) shall be permitted to be used in mechanical closets. Such sprinklers shall be capable of discharging a minimum of 0.1 gpm/ft² (4.1 mm/min).

13R-30 Log #CP15 AUT-RSS **Final Action: Accept**
(6.7.7.1.5.5, 6.7.7.1.5.6 and 6.7.7.1.5.7)

Submitter: Technical Committee on Residential Sprinkler Systems,

Recommendation: Renumber and revise these sections as follows:

~~6.7.7.1.5.5~~

6.7.7.1.6 Sprinkler Positioning.

6.7.7.1.6.1 Sprinklers shall be positioned so that the response time and discharge are not unduly affected by obstructions such as ceiling slope, beams, or light fixtures.

6.7.7.1.6.2 Small areas created by architectural features such as planter box windows, bay windows, and similar features shall be evaluated as follows:

(1) Where no additional floor area is created by the architectural feature, no additional sprinkler protection is required.

(2) Where additional floor area is created by an architectural feature, no additional sprinkler protection is required, provided all of the following conditions are met:

(a) The floor area shall not exceed 18 ft² (1.7 m²).

(b) The floor area shall not be greater than 2 ft (0.65 m) in depth at the deepest point of the architectural feature to the plane of the primary wall where measured along the finished floor.

(c) The floor shall not be greater than 9 ft (2.9 m) in length where measured along the plane of the primary wall.

(d) Measurement from the deepest point of the architectural feature to the sprinkler shall not exceed the maximum listed spacing of the sprinkler.

(3) The hydraulic design shall ~~is~~ not be required to consider the area created by the architectural feature.

~~6.7.7.1.5.6-6.3*~~ Except as otherwise permitted in 6.7.7.1.5.3, 6.7.7.1.5.4, and 6.7.7.1.5.7 ~~6.4~~, residential sprinklers shall provide, in conjunction with survivability enhancement, complete coverage of the floor area within the compartment.

~~6.7.7.1.5.7 6.4*~~ Small, potentially blocked or shadowed floor areas shall be permitted on a horizontal plane in compartments of 800 ft² (74.3 m²) or less as long as all of the following conditions are met. ~~For purposes of simplified calculations, assume in this theoretical case that the water discharging from a sprinkler travels in a straight line only.~~

(1) The maximum area of any single individual contiguous shadowed floor area, regardless of geometric configuration, shall not exceed 3 ft² (0.28 m²).

(2) The maximum area summation of any number of individual shadowed floor areas shall not exceed 12 ft² (1.11 m²) per compartment.

(3) The maximum total summation of shadowed floor areas and allowances made by 6.7.7.1.5.3 shall not exceed 30 ft² (2.79 m²) per dwelling unit.

~~**6.7.7.1.6.4** For purposes of simplified calculations, assume in this theoretical case that the water discharging from a sprinkler travels in a straight line only.~~

Substantiation: The requirements of 6.7.7.1.5.5, 6.7.7.1.5.6 and 6.7.7.1.5.7 are sprinkler positioning requirements.

This revision creates a new section for sprinkler positioning and editorially restructures the sections.

There are no technical changes in this proposal.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-31 Log #15 AUT-RSS
(6.7.7.3) **Final Action: Accept**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Revise text to read as follows:

Quick Response Sprinklers. Where quick-response sprinklers are installed in accordance with 6.7.7.1.3, 6.7.7.1.4, or 6.7.7.2.1, or 6.8.3.3, the maximum allowable spacing, minimum allowable spacing, and distance from the ceiling shall be in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

Substantiation: It stands to reason that when utilizing quick response sprinklers in garages connected to the dwelling unit, the spacing rules of NFPA 13 should also apply as they do to mechanical closets within the dwelling unit.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-32 Log #4 AUT-RSS
(6.8.1.3.1.3) **Final Action: Reject**

Submitter: James Everitt, Western Regional Fire Code Development Committee

Recommendation: Revise to read:

6.8.1.3.1.3 Where construction features or other special conditions exist that are outside the scope of sprinkler listings, the designer shall work with the AHJ in developing an engineered solution listed sprinklers shall be permitted to be installed beyond their listing limitations.

Substantiation: This is a new section in NFPA 13R. The base paragraph gives the designer "free range" at designing/installing sprinklers beyond their listing without any consideration to the design intent. There are instances when one must step outside the box to address a design issue. However it should be done in conjunction with the AHJ and the solution should be engineered.

Committee Meeting Action: Reject

Committee Statement: Residential home design results in many situations require installation beyond the listing limitations of the sprinkler (i.e. sloped ceilings). The Annex provides guidance for the AHJ in making the decision to permit this type of installation.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-33 Log #8 AUT-RSS
(6.8.1.5.2.3) **Final Action: Accept in Principle**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Add text to read as follows:

Sprinklers shall be located a minimum of 4 inches (102 mm) from a wall unless listed for distances less than 4 inches (102 mm).

Substantiation: NFPA 13R does not currently address this.

Committee Meeting Action: Accept in Principle

Revise proposed language.

Add this as a new 6.8.1.5.1.3.

6.8.1.5.1.3 Pendant and upright sprinklers shall be located a minimum of 4 inches (102 mm) from a wall unless listed for distances less than 4 inches (102 mm).

Committee Statement: Corrects the location of the paragraph, and the revised language correlates with NFPA 13.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-34 Log #18 AUT-RSS
(6.8.1.5.3.1) **Final Action: Accept in Principle**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Revise text to read as follows:

Closets. In all closets and compartments, including those closets housing mechanical equipment, that are not larger than 400 cu. Ft. (11.33 cu m) in size, a single sprinkler at the highest ceiling space in the closet shall be sufficient without regards to obstructions.

Substantiation: This section should not be limited to simply closets. A small compartment should have the same characteristics as a small closet and should be allowed the same obstruction relief.

Committee Meeting Action: Accept in Principle

Revise proposed language as follows:

Closets. In all closets and compartments, including those closets housing mechanical equipment, that are not larger than 400 cu. Ft. (11.33 cu m) in size, a single sprinkler at the highest ceiling space in the closet shall be sufficient without regards to obstructions or minimum distance to the wall.

Committee Statement: The small size of the compartment makes the traditional 4 in minimum spacing for sensitivity purposes unnecessary.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 22 Negative: 1

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Explanation of Negative:

ISMAN, K.: We do not agree that sprinklers should be permitted within 4 inches of a wall. This has less to do with operating times and everything to do with installation. The minimum 4 inch rule was originally placed in the standard to provide room for the sprinkler wrench to get around the sprinkler so that it can be installed without undue torque. Even in a closet, this minimum is still necessary.

13R-35 Log #14 AUT-RSS
(6.8.1.5.3.2(A)) **Final Action: Reject**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Revise text to read as follows:

(A) Pendant sprinklers shall be located at least 3 ft (914 mm) from obstructions such as ceiling fans and light fixtures unless the requirements of 6.8.1.5.3.4 are met.

Substantiation: The obstruction tests that this section is based on were conducted utilizing ceiling fans only. The 36" dimension is a result of both distribution and fire tests. However, the results of some of these tests were influenced by the movement of air by the fan. These restrictions/allowances depending on how you view it should not be applied universally to lights as well. The requirements of 6.8.1.5.3.4 should suffice unless future testing indicates otherwise. The same modification should apply to 6.8.1.5.3.3 as well.

Committee Meeting Action: Reject

Committee Statement: Based on the test submitted in the last cycle the spray pattern can be obstructed by light fixtures that extend below the ceiling.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-36 Log #20 AUT-RSS
(6.8.2.1.1) **Final Action: Accept**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Add text to read as follows:

The number of design sprinklers for a corridor or breezeway outside of the dwelling unit shall include up to the four most hydraulically demanding adjacent sprinklers.

Substantiation: An operating area of 4 sprinklers in a corridor/breezeway should be more than adequate to provide the level of protection afforded by NFPA 13R.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 22 Negative: 1

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Explanation of Negative:

HAAGENSEN, D.: Corridors that are considered residential are already addressed in 6.8.2.3 and 6.8.1. No technical data was submitted to justify the four head design for corridors not considered as inside the dwelling unit.

13R-37 Log #10 AUT-RSS
(6.8.2.3) **Final Action: Accept in Principle**

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Add text to read as follows:

The following types of spaces are permitted to be protected by residential sprinklers in accordance with their listing. Where they have flat, smooth ceilings and are protected in accordance with the requirements for residential sprinklers:

Substantiation: Not all ceilings in these areas have smooth flat ceilings. Residential sprinklers should be allowed to be used if listed.

Committee Meeting Action: Accept in Principle

Delete "their listing" and replace with "6.8.1".

Committee Statement: Reference back to the paragraph in the standard is more appropriate.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-38 Log #21 AUT-RSS
(6.8.3.3)

Final Action: Accept in Principle

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc

Recommendation: Add text to read as follows:

Garages that are accessible only from a single dwelling unit shall be considered as part of that dwelling unit. Such garages shall be sprinklered with residential sprinklers in accordance with their listing and with 6.8.1 or quick-response sprinklers.

Substantiation: Clarifies that the listing requirement in addition to the requirements of 6.8.1 still apply in this situation.

Committee Meeting Action: Accept in Principle

See Committee Action on Proposal 13R-39 (Log #35).

Committee Statement: Committee Action on Proposal 13R-39 (Log #35) addresses this.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-39 Log #35 AUT-RSS
(6.8.3.3)

Final Action: Accept in Principle

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

Recommendation: Revise text as follows:

Revise the text for the sprinkler protection in a garage (only accessible to a single dwelling unit) so that people have the following three options:

- 1) Use of a residential sprinkler in accordance with its listing.
- 2) Use of an extended coverage sprinkler in accordance with its light hazard listing.
- 3) Quick response spray sprinkler at standard spacing (6.8.6 or 6.8.7 of NFPA 13) designed to discharge at 0.05 gpm per sq ft density.

Substantiation: There is a great deal of confusion surrounding the use of the 0.05 density. Many people are using extended coverage sprinklers, but lowering the discharge to the 0.05 density when they needed a much higher density to get their listing.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept in Principle

Revise proposal as follows:

Revise 6.8.3.3

6.8.3.3 Garages that are accessible only from a single dwelling unit shall be considered as part of that dwelling unit.

6.8.3.3.1 Such garages shall be protected in accordance with one of the following:

- 1) Use of a residential sprinkler in accordance with its listing 6.8.1.
- 2) Use of an extended coverage sprinkler discharging water not less than its listed flow rate for light hazard, in accordance with its light hazard listing.
- 3) Quick response spray sprinkler at light hazard spacing in accordance with NFPA 13 standard spacing (6.8.6 or 6.8.7 of NFPA 13) designed to discharge at 0.05 gpm per sq ft density.

6.8.3.3.2 The system demand shall be permitted to be limited to the number of sprinklers in the compartment but shall not exceed four sprinklers.

6.8.3.3.3 Garage doors shall not be considered obstructions and shall be permitted to be ignored for placement and calculation of sprinklers.

Committee Statement: The revisions to the text indicate that this protection can be provided using light hazard spacing criteria for EC and QR spray sprinklers.

Editorial revision restructures the paragraph.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-40 Log #7 AUT-RSS
(6.9.3(3))

Final Action: Reject

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Revise text to read as follows:

(3) The walls and ceilings are surfaced with noncombustible or limited-combustible materials as defined by NFPA 220. Standards on Types of Building Construction. Doors shall not be required to be fire rated.

Substantiation: Many AHJ's believe that since the walls are to be non-combustible or limited combustible, the door should be rated as well.

Committee Meeting Action: Reject

Committee Statement: This section is addressing flame spread characteristics and not fire rating of opening protection. The standard is not concerned with the ratings of doors. Closets are not required to have doors.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-41 Log #5 AUT-RSS
(6.9.4, 6.9.5, 6.9.6, 6.9.7, 6.9.8)

Final Action: Reject

Submitter: James Everitt, Western Regional Fire Code Development Committee

Recommendation: Revise to read:

6.9.4 Sprinklers shall be installed in any closet used for heating and air-conditioning equipment or containing fuel fired equipment.

6.9.5 Unless required by section 6.9.5.1, sprinklers shall not be required in any porches, balconies, corridors, and stairs that are open and attached.

6.9.6 Sprinklers shall not be required in attics, ~~penthouse equipment rooms, elevator machine rooms, concealed space dedicated exclusively to and containing only dwelling unit ventilation equipment,~~ crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator's cars comply with ANSI A17.1 *Safety Code for Elevators and Escalators*, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel-fired equipment.

6.9.7 Sprinklers shall not be required in closets on exterior balconies, regardless of size, as long as there are no doors or unprotected penetrations from the closet directly into the dwelling unit, and the closet does not contain fuel-fired equipment.

6.9.8 Attics. Sprinklers are not required in attics that do not contain fuel-fired equipment. When fuel-fired equipment is present, sprinkler protection shall be provided in accordance with the following:

- (1) At least 1 quick response intermediate temperature sprinkler shall be installed above the equipment. When the roof pitch is greater than or equal to a 4:12 pitch, the sprinkler shall be located above the upslope side of the equipment, see Figure 6.9.8
- (2) Freeze protection shall be provided in accordance with section 6.1.4.1.
- (3) The sprinkler shall have a K-factor of 5.6 and be capable of flowing at a minimum residual pressure of 7 psi.

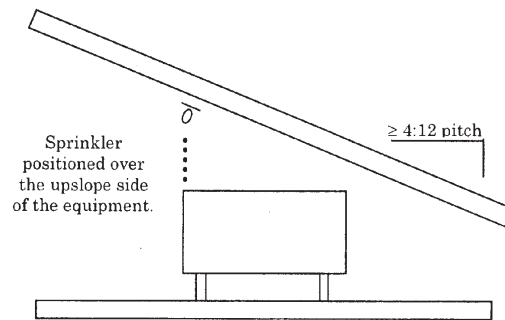


Figure 6.9.8. Attic sprinkler location.

Substantiation: The requirement for sprinkler protection in areas/rooms with "fuel fire equipment" was introduced in the last code cycle, and section 6.9.4 is new and 6.9.6 is revised in this edition of NFPA 13R. Despite all the new wording, section 6.9.4 (air conditioning equipment) directly conflicts with section 6.9.6. Additionally, the base code still fails to establish what the attic protection criteria that is required when "fuel fired equipment" is present.

Committee Meeting Action: Reject

Committee Statement: Proposed Paragraph 6.9.6 eliminates the exception for sprinklers in areas where it is clearly the intent of the standard to exempt sprinklers. Furthermore there is no data to support a single-head design for a 4 in 12 slope.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-42 Log #44 AUT-RSS
(6.9.4)

Final Action: Reject

Submitter: Tom Wellen, American Fire Sprinkler Association, Inc.

Recommendation: Revise text as follows:

Sprinklers shall be installed in any closet used for heating and air conditioning equipment, washer and dryers, and other heat producing mechanical equipment.

Substantiation: Some designers are missing sprinklers in the closets due to confusion of applying 6.9.3. The additional areas mentioned will help prevent these errors.

Committee Meeting Action: Reject

Committee Statement: It is not necessary to add additional items as they are already required by 6.9.1.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-43 Log #16 AUT-RSS
(6.9.5)**Final Action: Reject****Submitter:** Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.**Recommendation:** Revise text to read as follows:

Sprinklers shall not be required in any porches, balconies, corridors, and stairs that are open and attached. These spaces are considered open when one side of the area is fronting the exterior of the building.

Substantiation: The standard leaves too much room for interpretation when it comes to the word “open”. The standard needs to define what is open in regards to this section. An annex section should be added showing examples of areas that meet this section.

Committee Meeting Action: Reject

Committee Statement: It is not within the scope of NFPA 13R to define when these spaces are considered open. The Building code and the Life Safety determine openness.

Number Eligible to Vote: 28**Ballot Results:** Affirmative: 20 Negative: 3**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.**Explanation of Negative:**

ISMAN, K.: We disagree with the committee and agree with Mr. Schwab. This committee should determine what it means by “open” with respect to when it wants an area sprinklered or not. Currently, the public is relying on language in the Handbook. The language should be in the text of the standard.

STANLEY, G.: I believe that 13R should describe what an “open” porch, balcony, stairs or corridor means in reference to the committee’s intent on protection. We need to be as clear as possible on what requires fire sprinkler protection and what does not. I believe that this proposal will help clarify section 6.9.5. for its users.

VICTOR, T.: I disagree that the building code or life safety code will define openness. For the purposes of providing life safety to the occupants and the chance to escape or be evacuated from a fire, NFPA 13R should define what is considered an open porch, balcony, corridor, or stair.

I agree with Mr. Schwab’s clarification.

13R-44 Log #52 AUT-RSS
(6.9.5)**Final Action: Accept****Submitter:** Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.**Recommendation:** Revise text to read as follows:

Sprinklers shall not be required in any porches, balconies, corridors, carports and stairs that are open and attached.

Substantiation: Many times in multi-family construction, overhangs will be located in front of garage entrances. This provides under roof parking for the tenant in addition to the garage itself. The standard should clarify whether protection is required in these areas or not.

Committee Meeting Action: Accept**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.13R-45 Log #6 AUT-RSS
(6.9.6)**Final Action: Reject****Submitter:** James Everitt, Western Regional Fire Code Development Committee**Recommendation:** Revise to read:

6.9.6 Sprinklers shall not be required in attics, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to and containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or intended for living purposes or storage. ~~and do not contain fuel-fired equipment.~~

6.9.6.1 Sprinklers shall be required in attics and other areas containing fuel-fired equipment.

Substantiation: Eliminate confusion whether or not sprinklers are required in attics containing fuel-fired equipment. Also eliminates an exception to the opening statement of the Section.

Committee Meeting Action: Reject**Committee Statement:** See Committee Action on Proposal 13R-41 (Log #5).**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.13R-46 Log #45 AUT-RSS
(6.9.6)**Final Action: Reject****Submitter:** Tom Wellen, American Fire Sprinkler Association, Inc.**Recommendation:** Add text to A.6.9.6 to read as follows:

Living units elevated above ground level should be prevented from allowing storage and accumulation of windborne debris.

Substantiation: Structures located near coastal areas subject to hurricanes and flooding near rivers are built upon structures (stilts and platforms) above the flooding water level. The text will indicate how to address these areas under the structure.

Committee Meeting Action: Reject**Committee Statement:** This issue is addressed in fire codes.**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.13R-47 Log #9 AUT-RSS
(6.9.7)**Final Action: Accept****Submitter:** Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.**Recommendation:** Revise text to read as follows:

Sprinklers shall not be required in closets (regardless of size) on exterior balconies and exterior breezeways/corridors, as long as there are no doors or unprotected penetrations from the closet directly into the dwelling unit.

Substantiation: Last cycle the committee rejected a proposal that required sprinklers in these closets. This clarifies their intent.

Committee Meeting Action: Accept**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 22 Negative: 1**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.**Explanation of Negative:**

HAAGENSEN, D.: As worded, this now permits janitor closets and mechanical closets that are outside the dwelling unit to go without sprinkler protection.

13R-48 Log #11 AUT-RSS
(6.9.7)**Final Action: Accept in Principle****Submitter:** Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.**Recommendation:** Revise text to read as follows:

Sprinklers shall not be required in closets on exterior balconies, regardless of size, as long as there are no doors or unprotected penetrations from the closet directly into the dwelling unit except as required by 6.9.4.

Substantiation: Eliminates the conflict between 6.9.4 and 6.9.7.

Committee Meeting Action: Reject

Do not modify Paragraph 6.9.7. Instead Revise paragraph 6.9.4 as follows:

6.9.4 Sprinklers shall be installed in any closet used for heating and air-conditioning equipment except as permitted by 6.9.7.

Committee Statement: The committee agrees with the intent of the submitter, however the committee believes it is more appropriate to place this language in 6.9.4 and refer to 6.9.7.

Number Eligible to Vote: 28**Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.**Comment on Affirmative:**

ISMAN, K.: You can’t reject the proposal and then take some action. The public will not look into the situation and see that changes are being made. Instead, the action needs to be changed to “Accept in Principle”.

13R-49 Log #38 AUT-RSS
(6.10.3 (New))**Final Action: Accept****Submitter:** Roger Wilkins, Tyco Fire Suppression and Building Products**Recommendation:** Add new text as follows:

6.10.3 The installing contractor shall provide the property owner or the property owner’s authorized representative with the following:

(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed.

(2) NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.*

Substantiation: The proposed text for 6.10.3 will be in alignment with NFPA 13.

Committee Meeting Action: Accept**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-50 Log #43 AUT-RSS
(6.11 (New))

Final Action: Reject

Submitter: James Golinveaux, Tyco Fire Suppression and Building Products

Recommendation: Add new text as follows:

- 6.11 Dry Pipe and Preaction Systems.
- 6.11.1 Sprinklers.
- 6.11.1.1 Sprinklers shall be specifically listed for use on dry pipe and double interlock preaction systems. The following types of sprinklers and arrangements shall be permitted for dry pipe and preaction systems:
- (1) Residential upright sprinklers.
 - (2) Residential dry sprinklers.
 - (3) Residential pendent and sidewall sprinklers installed on return bends, where the sprinklers, return bends, and branch line piping are in an area maintained at or above 40°F (4°C). Return bends shall be permitted to be omitted when using potable water supplies combined with corrosion-resistant pipe.
 - (4) Residential horizontal sidewall sprinklers, installed so that water is not trapped.
- 6.11.1.2 Sprinklers with nominal K-factors greater than 4.0 and less than 5.6 shall be permitted to be installed on dry pipe systems where piping is corrosion resistant or internally galvanized.
- 6.11.1.3 Sprinklers with nominal K-factors of 5.6 or greater shall be permitted to be installed on pipe complying with the requirements of Section 5.2.
- 6.11.2 Preaction Systems. Preaction systems shall be one of the following types:
- (1) A single interlock system, which admits water to sprinkler piping upon operation of detection devices
 - (2) A non-interlock system, which admits water to sprinkler piping upon operation of detection devices or automatic sprinklers
 - (3) A double interlock system, which admits water to sprinkler piping upon operation of both detection devices and automatic sprinklers
- 6.11.3 Dry Pipe and Double Interlock Preaction System Water Delivery.
- 6.11.3.1 Water delivery shall be based on the hazard shown in Table 6.11.3.1.
- Table 6.11.3.1 Water Delivery Time for Dry Pipe and Double Interlock Preaction Systems
- | | |
|---|---|
| Hazard Number of Most Remote Sprinklers | Initially Open Maximum Time of Water Delivery |
| Residential 1 | 15 Seconds |
- 6.11.3.2 Water delivery shall be based on one of the following:
- (1) Calculation program and method that shall be listed by a nationally recognized laboratory
 - (2) An inspector's test connection providing a flow equivalent to the smallest orifice sprinkler utilized, wherein the test orifice is located on the end of the most distant sprinkler pipe
- 6.11.4 Location and Protection of Dry Pipe and Preaction Valves. The dry pipe valve, preaction valve, and supply pipe shall be protected against freezing and mechanical injury.

Substantiation: To add preaction and dry design criteria to 13R when using Residential Sprinklers.

Committee Meeting Action: Reject

Committee Statement: The reference to NFPA 13 for dry-pipe and preaction systems in section 5.3.3 of NFPA 13R is sufficient. In addition to the issues raised in this proposal, other sections would need to be added to make the rules complete including pitching of pipe, location of FDC connections, discharge criteria increases, water delivery time for systems that only protect outside the dwelling unit, acceptable pipe types, trim requirements for dry-pipe valves, compressors, air maintenance devices and other system installation requirements currently handled by NFPA 13. Rather than handle some of the requirements in NFPA 13R and leave the user to guess at whether the rules from NFPA 13 should govern the rest of the installation or not, the straight reference to NFPA 13 for all of the requirements for a dry-pipe system is preferred so that nothing is left to question.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-51 Log #27a AUT-RSS
(Chapter 7)

Final Action: Accept

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

Recommendation: Chapter 7 Discharge Criteria

- 7.1 (old 6.8.1) Design Criteria — Inside Dwelling Unit.
- 7.1.1* (old 6.8.1.1.1*) Residential Sprinklers.
- 7.1.1.1 (old 6.8.1.1.1.1) The system shall provide at least the flow required for the multiple and single sprinkler operating criteria specified by the sprinkler listing.
- 7.1.1.2* (old 6.8.1.1.1.2*) The system shall provide at least the flow required to produce a minimum discharge density of 0.05 gpm/ft² (2.04 mm/min) to the design sprinklers.

7.1.1.3* (old 6.8.1.2*) Number of Design Sprinklers. The number of design sprinklers under flat, smooth, horizontal ceilings shall include all sprinklers within a compartment, up to a maximum of four adjacent sprinklers, that requires the greatest hydraulic demand.

7.1.2 Quick Response Sprinklers

7.1.2.1 (old 6.8.1.6) Quick-Response Sprinklers. Where quick-response sprinklers are used in accordance with 6.2.1.3, the discharge and design area requirements of NFPA 13, Standard for the Installation of Sprinkler Systems, shall apply.

7.2* (old 6.8.2*) Design Criteria — Outside Dwelling Unit.

7.2.1 (old 6.8.2.1) For areas outside the dwelling unit, the design discharge and design area criteria shall comply with NFPA 13, Standard for the Installation of Sprinkler Systems, unless permitted by 7.2.2 and 6.4.7.

7.2.2 (old 6.8.2.2) The system demand of areas outside the dwelling unit shall be permitted to be limited to the number of sprinklers in the compartment area but shall not be greater than the demand for a total of four sprinklers where all of the following conditions are met:

Items (1) through (5) remain unchanged

7.2.3 (not in NFPA 13R) Where residential sprinklers are permitted outside of the dwelling unit in accordance with section 6.4.7, the discharge criteria shall be in accordance with 7.1.1.3.

7.3 (old 6.8.3) Design Criteria — Garages.

7.3.1 (old 6.8.3.1) Garages that are completely separated from the residential portion of the building by fire-resistive construction sufficient to have them considered separate buildings under the local code shall be protected in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

7.3.2 (old 6.8.3.2) Garages that are accessible by people from more than one dwelling unit, and are not covered by 7.3.1, shall be considered part of the building and shall be protected in accordance with 7.2. Garage doors shall not be considered obstructions and shall be permitted to be ignored for placement and calculation of sprinklers.

7.3.3* (old 6.8.3.3*) Garages that are accessible only from a single dwelling unit shall be considered as part of that dwelling unit. Such garages shall be sprinklered with residential sprinklers in accordance with 7.1 or quick-response sprinklers designed to provide a density of 0.05 gpm/ft² (2.04 mm/min) over the area of the garage, but not to exceed four sprinklers. Garage doors shall not be considered obstructions and shall be permitted to be ignored for placement and calculation of sprinklers.

7.4 (old 6.8.4) Pipe Sizing. Piping shall be sized using hydraulic calculation procedures in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Committee Statement: This proposal will be correlated with related Chapter 6 revisions.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-52 Log #27b AUT-RSS
(Chapter 8)

Final Action: Accept

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

Recommendation: Chapter 8 Plans and Calculations

- 8.1 (old 6.2) Working Plans.
- 8.1.1 (old 6.2.1) Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or remodeled.
- 8.1.2 (old 6.2.2) Deviations from approved plans shall require permission of the authority having jurisdiction.
- 8.1.3 (old 6.2.3) Working plans shall be drawn to a specified scale.
- 8.1.4 (old 6.2.4) Sprinkler plans shall be drawn on sheets of uniform size.

- 8.1.5 (old 6.2.5) Sprinkler plans shall provide a plan of each floor.
 8.1.6 (old 6.2.6) Sprinkler plans shall be capable of being easily duplicated.
 8.1.7 (old 6.2.7) Sprinkler plans shall indicate the following:
 Items (1) through (25) unchanged

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Committee Statement: This proposal will be correlated with related Chapter 6 revisions.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-53 Log #27c AUT-RSS
 (Chapter 9)

Final Action: Accept

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

Recommendation: Chapter 9 Water Supplies

9.1 (old 6.6.1) Every sprinkler system shall have at least one automatic water supply.

9.2 (old 6.6.2) The water supply shall be capable of supplying the system demand for at least 30 minutes. (See 7.1.1.3.)

9.3* (old 6.6.3*) The water supply source shall be one of the following:
 Items (1) through (4) remain unchanged

9.4 (old 6.6.4) Where a fire pump is installed, the fire pump shall be installed in accordance with NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection.

9.5* (old 6.6.5*) Domestic demand shall be included as part of the overall system demand for systems with common domestic/fire mains where no provisions are made to prevent the domestic waterflow upon sprinkler system activation.

9.6 (old 6.6.6) Sprinkler systems with non-fire protection connections shall comply with Section 7.6 of NFPA 13, Standard for the Installation of Sprinkler Systems.

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Committee Statement: This proposal will be correlated with related Chapter 6 revisions.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-54 Log #27d AUT-RSS
 (Chapter 10)

Final Action: Accept

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

Recommendation: Chapter 10 System Acceptance

10.1 (old 6.3) Approval of Sprinkler Systems.

10.1.1 (old 6.3.1) The installer shall perform all required acceptance tests (see Section 10.2) prior to asking for approval of the installation.

10.1.2 (old 6.3.2) The installer shall complete the contractor's material and test certificate(s) (see Figure 10.1.2) prior to asking for approval of the installation.

FIGURE 10.1.2 (old Figure 6.3.2) Contractor's Material and Test Certificate for Aboveground Piping.

10.1.3 (old 6.3.3) The installer shall forward the certificate(s) to the authority having jurisdiction prior to asking for approval of the installation.

10.1.4 (old 6.3.4) Where the authority having jurisdiction is required to be present during the conducting of acceptance tests, the installer shall provide advance notification of the time and date the testing will be performed.

10.2 (old 6.4) Acceptance Tests.

10.2.1* (old 6.4.1*) Flushing of Underground Connections.

10.2.1.1 (old 6.4.1.1) Underground mains and lead-in connections to system risers shall be flushed before a connection is made to sprinkler piping.

10.2.1.2 (old 6.4.1.2) The flushing operation shall be continued until the water issuing from the main is clear.

10.2.1.3 (old 6.4.1.3) The flushing operation shall be performed at the hydraulically calculated water demand rate of the system.

10.2.1.4 (old 6.4.1.4) The flushing operation shall be performed such that the disposal of water issuing from the test outlets does not damage the property.

10.2.2* (old 6.4.2*) Hydrostatic Pressure Tests.

10.2.2.1 (old 6.4.2.1) Systems having more than 20 sprinklers or having a fire department connection shall pass a hydrostatic pressure test performed for the aboveground piping system in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems.

10.2.2.2 (old 6.4.2.2) Systems having both fewer than 20 sprinklers and no fire department connection shall pass a hydrostatic pressure test performed for the aboveground piping system at 50 psi higher than the maximum system pressure using the hydrostatic test procedure specified in NFPA 13, Standard for the Installation of Sprinkler Systems.

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Committee Statement: This proposal will be correlated with related Chapter 6 revisions.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-55 Log #27e AUT-RSS
(Chapter 11)**Final Action: Accept****Submitter:** Kenneth E. Isman, National Fire Sprinkler Association, Inc.
Recommendation: Chapter 11 Care and Maintenance

11.1 (old 6.5.1) At least three spare sprinklers of each type, temperature rating, and orifice size used in the system shall be installed on the premises.

11.2* (old 6.10.1 and old annex note A.6.10) The owner shall be responsible for the condition of a sprinkler system and shall keep the system in normal operating condition.

11.3 (old 6.10.2) Sprinkler systems shall be inspected, tested, and maintained in accordance with NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.

Substantiation: Chapter 6 is not presented so that it flows in any kind of logical order. It starts with installation requirements, moves into working plans, then gets into acceptance testing, then goes back to installation requirements, with design discharge requirements mixed in. It's no wonder that people consider the document difficult to use.

The system of chapters 6 through 11 that has been proposed is much more logical and mirrors the order the information is found in NFPA 13. The information is laid out in a fashion that somewhat simulates the order in which the information is needed with installation criteria first, discharge criteria second, calculation and water supply information third, acceptance testing fourth and maintenance last. This makes much more sense. Additionally, the text within the chapters can be organized from the most used components (sprinklers) to the least used components.

In performing the reorganization, some problems with the existing text become glaring, but the re-write fixes them. For example, the requirement for a test connection is duplicated in the standard (see existing 6.5.4 and 6.7.3.1). Also, situations like the need for intermediate temperature sprinklers are currently in the rules that only apply to the sprinklers inside of a dwelling unit. This criteria should be moved (and has been proposed in the re-write) to a section that applies to areas outside the dwelling unit as well. After all, if a residential or quick response sprinkler is too close to a unit heater or a diffuser, it does not matter whether it is in a dwelling unit or not, but the rules as they are currently written only apply to those sprinklers inside dwelling units.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept**Committee Statement:** This proposal will be correlated with related Chapter 6 revisions.**Number Eligible to Vote: 28****Ballot Results:** Affirmative: 23**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.13R-56 Log #17 AUT-RSS
(A.1.1)**Final Action: Accept in Principle****Submitter:** Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.**Recommendation:** Revise text to read as follows:NFPA 13R is appropriate for use as an option to NFPA 13, Standard for the Installation of Sprinkler Systems, only in those residential occupancies, as defined in this standard, up to and including four stories in height. It is the intent of this standard that if NFPA 13R is appropriate for use, that it be used throughout the entire building. It is recognized that an occupancy incidental to the operations of the residential occupancy might exist within that residential occupancy. Such incidental occupancy would be considered part of the predominant (residential) occupancy and subject to the provisions of the predominant (residential) occupancy by 6.1.14.2 of NFPA 101, Life Safety Code, and similar provisions in many local building and fire codes. Examples of incidental occupancies found in NFPA 13R installations can include: Parking garages/areas, community laundry rooms, clubhouses, exercise facilities, tenant storage, etc. Use of NFPA 13R throughout the entire building in this case is allowed.

Where buildings are...".

Substantiation: Provides guidance on what is considered incidental to a building's occupancy in order to allow the use of an NFPA 13R System.**Committee Meeting Action: Accept in Principle**Modify as follows: NFPA 13R is appropriate for use as an option to NFPA 13, Standard for the Installation of Sprinkler Systems, only in those residential occupancies, as defined in this standard, up to and including four stories in height. It is the intent of this standard that if NFPA 13R is appropriate for use, that it be used throughout the entire building. It is recognized that an occupancy incidental accessory to the operations of the residential occupancy might exist within that residential occupancy. Such incidental accessory occupancy would be considered part of the predominant (residential) occupancy and subject to the provisions of the predominant (residential) occupancy by 6.1.14.2 of NFPA 101, Life Safety Code, and similar provisions in many local building and fire codes. Examples of incidental accessory occupancies found in NFPA 13R installations can include: Parking garages/areas, community laundry rooms, clubhouses, exercise facilities, tenant storage, etc. Use of NFPA 13R throughout the entire building in this case is allowed.**Committee Statement:** Further clarification of the scope and application of the standard in accessory occupancies.

See Committee Action on Proposal 13R-58 (Log #37) for complete action on 1.1 and A.1.1.

Number Eligible to Vote: 28**Ballot Results:** Affirmative: 22 Negative: 1**Ballot Not Returned:** 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.**Explanation of Negative:**

HAAGENSEN, D.: The example list generated by this Proposal is too liberal. As an example, model building codes contain area limitations for parking areas whereby the "parking garage/areas" are no longer considered an "Accessory Use" to the Residential Use Group. Also, both "Accessory" and "Incidental" should appear in Section A.1.1 to meet the original intent of NFPA 13R. Both "Accessory" and "Incidental" areas to a Residential Use are considered by the model building codes to be part of the Residential Use.

13R-57 Log #47 AUT-RSS
(A.1.1)**Final Action: Accept in Principle****Submitter:** Marcelo M. Hirschler, GBH International**Recommendation:** Revise as follows:

A.1.1 NFPA 13R is appropriate for use as an option to NFPA 13, Standard for the Installation of Sprinkler Systems, only in those residential occupancies, as defined in this standard, up to and including four stories in height. It is the intent of this standard that if NFPA 13R is appropriate for use, that it be used throughout the entire building. It is recognized that an occupancy incidental to the operations of the residential occupancy might exist within that residential occupancy. Such incidental occupancy would be considered part of the predominant (residential) occupancy and subject to the provisions of the predominant (residential) occupancy by 6.1.14.2, of NFPA 101, Life Safety Code, and similar provisions in many local building and fire codes. Use of NFPA 13R throughout the entire building in this case is allowed.

Where buildings are greater than four stories in height, or where buildings are of mixed use where residential is not the predominant occupancy, residential portions of such buildings should be protected with residential or quick-response sprinklers in accordance with 8.4.5 of NFPA 13. Other portions of such buildings should be protected in accordance with NFPA 13. Where buildings of mixed use can be totally separated so that the residential portion is considered a separate building under the local code, NFPA 13R can be used in the residential portion while NFPA 13 is used in the rest of the building.

The criteria in this standard are based on full-scale fire tests of rooms containing typical furnishings found in residential living rooms, kitchens, and bedrooms. The furnishings were arranged as typically found in dwelling units in a manner similar to that shown in Figure A.1.1(a), Figure A.1.1(b), and Figure A.1.1(c) Sixty full-scale fire tests were conducted in a two story dwelling in Los Angeles, California, and 16 tests were conducted in a 14 ft (4.3 m) wide mobile home in Charlotte, North Carolina. Sprinkler systems designed and installed according to this standard are expected to prevent flashover within the compartment of origin where sprinklers are installed in the compartment. A sprinkler system designed and installed according to this standard cannot, however, be expected to completely control a fire involving fuel loads that are significantly higher than average for dwelling units [10 lb/ft² (49 kg/m²)], configurations of fuels other than those with typical residential occupancies, or conditions where the interior finish has an unusually high flame spread index (greater than 225), when tested in accordance with ASTM E 84, Standard Test Method of Surface Burning Characteristics of Building Materials.

To be effective, sprinkler systems installed in accordance with this standard need to open the sprinklers closest to the fire before the fire exceeds the ability of the sprinkler discharge to extinguish or control the fire. Conditions that allow the fire to grow beyond that point before sprinkler activation or that interfere with the quality of water distribution can produce conditions beyond the capabilities of the sprinkler system described in this standard. Unusually high ceilings or ceiling configurations that tend to divert the rising hot gases from sprinkler locations or change the sprinkler discharge pattern from its standard pattern can produce fire conditions that cannot be extinguished or controlled by the systems described in this standard.

Also, add reference to ASTM E 84 into Annex B.

Substantiation: It is important to reference the test method used to assess flame spread index. The test method is the Steiner tunnel test, as standardized in ASTM E84. NFPA 255 is a similar test method but it is in the process of being withdrawn by the NFPA Fire Tests committee. The NFPA 5000/101 technical committee recently met for its ROC meeting and made recommendations to other NFPA 101 and NFPA 5000 committees that all references to NFPA 255 be replaced by ones to ASTM E 84, which is being kept fully up-to-date on activities on mounting methods.

I am the chairman of the NFPA Advisory Committee on the Glossary on Terminology. The committee was created by NFPA Standards Council to provide consistency in terminology throughout the NFPA documents. The committee has not had time to review all of my recommendations for NFPA 13, NFPA 13D and NFPA 13R definitions of terms. Therefore, this proposal is being submitted in my own name only.

Committee Meeting Action: Accept in Principle

Add "or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials" at the end of the proposed new text referencing ASTM E 84.

Committee Statement: Either ASTM E 84 or ANSI/UL 723 can be used to develop a flame-spread index.

See Committee Action on Proposal 13R-58 (Log #37) for complete action on 1.1 and A.1.1.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-58 Log #37 AUT-RSS

Final Action: Accept in Principle (A.1.1, 6.8.2.1, 6.8.2.4 through 6.8.2.4.2 (New))

Submitter: Ronald G. Nickson, National Multi-Housing Council (NMHC)

Recommendation: 1. Revise Annex Note A.1.1 as follows:

A.1.1 NFPA 13R is appropriate for use as an option to NFPA 13, *Standard for the Installation of Sprinkler Systems*, only in those residential occupancies, as defined in this standard, up to and including four stories in height above grade plane. It is the intent of this standard that if NFPA 13R is appropriate for use, that it be used throughout the entire building. It is recognized that an occupancy incidental or accessory to the operations of the residential occupancy might exist within that residential occupancy. Such incidental or accessory occupancy would be considered part of the predominant (residential) occupancy and subject to the provisions of the predominant (residential) occupancy by 6.1.14.2 of NFPA 101, Life Safety Code, and similar provisions in many local building and fire codes. Use of NFPA 13R throughout the entire building in this case is allowed.

Where buildings are greater than four stories in height, or where buildings are of mixed-use multiple occupancy where residential is not the predominant occupancy, residential portions of such buildings should be protected with residential or quick-response sprinklers in accordance with 8.4.5 of NFPA 13. Other portions of such buildings should be protected in accordance with NFPA 13. Where buildings are equal to or less than four stories in height above grade plane, and are of mixed-use multiple occupancy, if they can be totally separated in accordance with the separated occupancy requirements so that the residential portion is considered a separate building under the local code (such as the "Separated Occupancies" requirements of 2006 NFPA 101 Section 6.1.14.4), NFPA 13R can be used in the residential portion while NFPA 13 is used in the rest of the building.

2. Revise Section 6.8.2.1 as follows:
6.8.2.1 For areas outside the dwelling unit, the design discharge and design area criteria shall comply with NFPA 13, *Standard for the Installation of Sprinkler Systems*, unless permitted by 6.8.2.2 and 6.8.2.3 through 6.8.2.4.

3. Add new Sections and Annex Notes as follows:

6.8.2.4* For a multiple occupancy, which is a building in which two or more classes of occupancy exist the sprinkler design shall be in accordance with 6.8.2.4.1 or 6.8.2.4.2.

A.6.8.2.4 The term "multiple occupancy" is taken from the 2006 NFPA 101 Section 6.1.14.2.1 and is consistent with the terminology used in other model building and fire codes used throughout the United States.

6.8.2.4.1* For a mixed occupancy, which is a multiple occupancy where the occupancies are intermingled, the building shall comply with NFPA 13, Standard for the Installation of Sprinkler Systems.

A.6.8.2.4.1 The term "mixed occupancy" is taken from the 2006 NFPA 101 Sections 6.1.14.2.2 & 6.1.14.3 and is consistent with the terminology used in other model building and fire codes used throughout the United States.

6.8.2.4.2* For a separated occupancy, which is a multiple occupancy where the occupancies are separated by fire resistance-rated assemblies in accordance with the separated occupancy provisions of the local building code, the residential portion of the building shall be designed in accordance with NFPA 13R, and the other separated occupancies shall be designed in accordance with NFPA 13.

A.6.8.2.4.2 The term "separated occupancy" is taken from the 2006 NFPA 101 Sections 6.1.14.2.3 & 6.1.14.4 through 6.1.14.4.4, and is consistent with the terminology used in other model building and fire codes used throughout the United States. For other areas outside the dwelling units, but considered part of the residential occupancy, such as corridors, incidental or accessory occupancies (as discussed under Annex Note A.1.1), it is only the intent of NFPA 13R to reference the sprinkler discharge (flow and pressure), number of design sprinklers, and position of sprinklers (distance from walls, ceilings, and other sprinklers) requirements of NFPA 13, Standard for the Installation of Sprinkler Systems. Other rules from NFPA 13 such as sprinklering of combustible concealed spaces, hose stream demand, and water supply duration are not intended to be referenced by 6.8.2.4.2.

Substantiation: Part #1:

Changes to Annex Note A.1.1 are to update to the proper terminology used by the model building and fire codes for the old term of "mixed use". NFPA 101, NFPA 5000 and for the most part the I Codes have replaced the word "use" with "occupancy". NFPA 101 & NFPA 5000 now consider "mixed use" as a subset of "Multiple Occupancy" requirements that include "Mixed Occupancies" and "Separated Occupancies". The 2006 IBC now uses "Mixed Occupancies" (Section 508.3) as its general heading with subset of "Nonseparated Occupancies" (Section 508.3.2) and "Separated Occupancies" (Section 508.3.3). Since NFPA 13R is under the NFPA family of codes and standards, this code proposal follows the NFPA 101/5000 terminology. However, anyone also using the I Codes will have no problem with compliance

or enforcement with the intent of this update because the terminology for NFPA's "Mixed Occupancy"/IBC's "Nonseparated Occupancies" and NFPA's "Separated Occupancies"/IBC's "Separated Occupancies" are the same as far as their application on this sprinklering issue.

In addition, the definition of "grade plane" has also been standardized between the NFPA Codes and I Codes so its use in NFPA 13R will not be misunderstood and applied. Both NFPA Codes and the I Codes are consistent with its definition of the "height" of a building being measured from the "grade plane", and past formal interpretations from both NFPA 101/5000 Committees and the ICC have consistently applied NFPA 13R requirements to buildings no more than 4 stories above grade plane.

The addition, for further editorial clarification purposes, of the term "accessory" to be used with "incidental" is also used by the building codes for occupancies subsidiary to the main occupancy and considered in a similar manner as "incidental". Such "accessory" and "incidental" areas are sprinklered under Section 6.8.2.1's general requirement for compliance with NFPA 13, using Annex Note A.6.8.2 limitations on NFPA 13's criteria as guidance ["A.6.8.2 It is only the intent of NFPA 13R to reference the sprinkler discharge (flow and pressure), number of design sprinklers, and position of sprinklers (distance from walls, ceilings, and other sprinklers) requirement of NFPA 13, Standard for the Installation of Sprinkler Systems. Other rules from NFPA 13 such as sprinklering of combustible concealed spaces, hose stream demand, and water supply duration are not intended to be referenced by 6.8.2. It is also the intent of 6.8.2 to apply to those systems or portions of systems that are outside the dwelling unit but have been determined to be considered residential or incidental to residential and within the scope of this standard. (Also see A.1.1)"]]

Part #3:

New Sections 6.8.2.4 through 6.8.2.4.2 and its Annex Notes are clarifications on how to apply the sprinkler requirements of NFPA 13/13R to "multiple occupancies" in a building. I call this a clarification because it is not a change in the past and present application of the NFPA 13R requirements as it relates to how NFPA 101/5000 or the I Codes have permitted NFPA 13R's use in buildings. These new sections only provide clearly and properly referenced code text and annex information to the appropriate building and fire codes' requirements for the proper fire rated separation of the residential portion(s) that will be sprinklered in accordance with NFPA 13R vs. the non-residential occupancies that will be sprinklered in accordance with NFPA 13.

Part #2:

Revision to Section 6.8.2.1 is strictly editorial to properly reference also the proposed new Section 6.8.2.4 on "Multiple Occupancy".

Committee Meeting Action: Accept in Principle

Accept changes to 6.8.2.1

Add a new 1.1.1 and revise A.1.1 in its entirety as follows:

1. Add a new section 1.1.1 as follows:

1.1.1 In buildings containing more than one occupancy classification, use of this standard shall be limited to portions of the building that are classified as a residential occupancy and are separated from other occupancies by a fire-resistance rated assembly, as required by the local Building Code for qualification as "separated occupancies."

2. Revised Annex Note A.1.1 as follows:

A.1.1 NFPA 13R is appropriate for use as an option to NFPA 13, *Standard for the Installation of Sprinkler Systems*, only in those residential occupancies, as defined in this standard, up to and including four stories in height. It is the intent of this standard that if NFPA 13R is appropriate for use, that it be used throughout the entire building. It is recognized that an occupancy accessory to the operations of the residential occupancy might exist within that residential occupancy. Such accessory occupancy would be considered part of the predominant (residential) occupancy and subject to the provisions of the predominant (residential) occupancy by 6.1.14.2 of NFPA 101, Life Safety Code, and similar provisions in many local building and fire codes. Use of NFPA 13R throughout the entire building in this case is allowed.

Where residential occupancy buildings are greater than four stories in height, or where buildings are of mixed use where residential is not the predominant occupancy, residential portions of such buildings should be protected with residential or quick-response sprinklers in accordance with 8.4.5 of NFPA 13. Other portions of such buildings should be protected in accordance with NFPA 13. Where buildings of mixed use can be totally separated so that the residential portion is considered a separate occupancy or a separate building under the local code, NFPA 13R can be used in the residential occupancy portion while NFPA 13 is used in the rest of the building. (Examples of incidental accessory occupancies found in NFPA 13R installations can include: Parking garages/areas, community laundry rooms, clubhouses, exercise facilities, tenant storage, etc.)

"NFPA 13R's intent for a building's height is determined in accordance with the applicable building code which will have its own methods for determining building and story heights. Under the IBC and NFPA 101/5000 Codes, an NFPA 13R sprinkler system is permitted in a residential occupancy where the building is a maximum of four stories above grade plane and there are basement(s) below grade plane. In addition, there are building code requirements that consider, where portions of a structure are above and below a three hour fire rated horizontal assembly, as separated buildings (See 2006 NFPA 5000, Section 7.4.3.6.5 and 2006 IBC Section 509.2). In such types of structures, where the residential portion above the three hour fire rated horizontal assembly is considered as a separated building(s), the residential

building(s) can be sprinklered in accordance with NFPA 13R when the residential building(s) are a maximum of 4 stories.”

The criteria in this standard are based on full-scale fire tests of rooms containing typical furnishings found in residential living rooms, kitchens, and bedrooms. The furnishings were arranged as typically found in dwelling units in a manner similar to that shown in Figure A.1.1(a), Figure A.1.1(b), and Figure A.1.1(c). Sixty full-scale fire tests were conducted in a two story dwelling in Los Angeles, California, and 16 tests were conducted in a 14 ft (4.3 m) wide mobile home in Charlotte, North Carolina. Sprinkler systems designed and installed according to this standard are expected to prevent flashover within the compartment of origin where sprinklers are installed in the compartment. A sprinkler system designed and installed according to this standard cannot, however, be expected to completely control a fire involving fuel loads that are significantly higher than average for dwelling units [10 lb/ft² (49 kg/m²)], configurations of fuels other than those with typical residential occupancies, or conditions where the interior finish has an unusually high flame spread index (greater than 225), when tested in accordance with ASTM E 84, Standard Test Method of Surface Burning Characteristics of Building Materials or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials.

To be effective, sprinkler systems installed in accordance with this standard need to open the sprinklers closest to the fire before the fire exceeds the ability of the sprinkler discharge to extinguish or control the fire. Conditions that allow the fire to grow beyond that point before sprinkler activation or that interfere with the quality of water distribution can produce conditions beyond the capabilities of the sprinkler system described in this standard. Unusually high ceilings or ceiling configurations that tend to divert the rising hot gases from sprinkler locations or change the sprinkler discharge pattern from its standard pattern can produce fire conditions that cannot be extinguished or controlled by the systems described in this standard.

Also, add reference to ASTM E 84 and ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials to Annex B

Committee Statement: Correlation is necessary based on committee actions on the other two provisions.

This committee action combines the changes to 1.1 from Proposal 13R-56 (Log #17) and Proposal 13R-57 (Log #47).

New Subsection is added to clarify the application of NFPA 13R requirements to a “residential” building with multiple occupancies that is quite common in our modern urban cities. Within the great majority of “residential” buildings built in urban areas of most areas of this country that are designed to meet the scope of NFPA 13R, there are other complementary types of occupancies that would not meet the limited definition of nonseparated “incidental” or “accessory” occupancies under the model building codes. Some examples are residential buildings where the first floor has parking, retail assembly (i.e. restaurants) or business uses and the 2nd-4th floors have residential occupancy. Or there may be work/live units on the first/second floors, with the 3rd – 4th floors all dwelling units. Clearly, many such common types of urban city residential buildings have been built under NFPA 13R for the residential portions; with the other occupancies being fire separated under the “separated occupancies” requirements of the building code and these other occupancies being sprinklered under NFPA 13. Section 1.1.1 only clarifies that such NFPA 13R design buildings would have the residential portion designed under NFPA 13R, and the other non-residential occupancies would be properly fire separated under the applicable building code requirements for “separated occupancies” and those occupancies would be sprinklered per NFPA 13.

Part #2:

Changes to Annex Note A.1.1 in the first paragraph are to update to the proper terminology used by the model building and fire codes for the terms “accessory” and “incidental”. “Incidental” is also used by the building codes for occupancies subsidiary to the main occupancy, and considered in a similar manner as “accessory”. Such “accessory” and “incidental” areas are sprinklered under Section 6.8.2.1’s general requirement for compliance with NFPA 13, using Annex Note A.6.8.2 limitations on NFPA 13’s criteria as guidance [“A.6.8.2 It is only the intent of NFPA 13R to reference the sprinkler discharge (flow and pressure), number of design sprinklers, and position of sprinklers (distance from walls, ceilings, and other sprinklers) requirements of NFPA 13, Standard for the Installation of Sprinkler Systems. Other rules from NFPA 13 such as sprinklering of combustible concealed spaces, hose stream demand, and water supply duration are not intended to be referenced by 6.8.2. It is also the intent of 6.8.2 to apply to those systems or portions of systems that are outside the dwelling unit but have been determined to be considered residential or incidental to residential and within the scope of this standard. (Also see A.1.1.)”].

Number Eligible to Vote: 28

Ballot Results: Affirmative: 21 Negative: 2

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

Explanation of Negative:

HAAGENSEN, D.: The Committee Action from the ROP meeting should be overturned by voting Negative on 13R-58. The Committee Action on this Proposal allows the use of NFPA 13 and NFPA 13R for design/installation in the same building. This will lead to a dangerously confusing situation for fire departments responding to a fire in the building, add unnecessary complications for designers/installers, and confuse building occupants about what to expect out of fire sprinkler protection. Additionally, the proposed Paragraph 1.1

conflicts with Section A.1.1.

HOPKINS, M.: The proposal includes several conflicts and stretches the application of NFPA 13R beyond the intended scope.

Section A.1.1 identifies the following: “It is the intent of this standard that if NFPA 13R is appropriate for use, that it be **used throughout the entire building.**” However, Section 6.8.2.4 discusses the use of NFPA 13R in mixed use buildings. Section 6.8.2.4.2 provides requirements for protection of residential portions of mixed use separated occupancies. First, the requirements for each separated occupancy are based on each specific occupancy or group of occupancies in a fire area. Therefore, sprinklers may not be required for all applications. Second, Section 6.8.2.4.2 has a mandatory requirement for the use of NFPA 13R in the residential portions of all mixed use separated occupancy buildings. Why wouldn’t the residential design provisions of NFPA 13 be permitted? An option to use the residential provisions of NFPA 13 should be permitted.

The wording of sections A.1.1 and 6.8.2.4 would permit (and require) the use of NFPA 13R for the residential portions of pedestal type buildings constructed in accordance with the provisions of IBC-2006, Section 509. The various requirements provided in Section 509 would in essence permit the use of NFPA 13R in buildings with heights in excess of 4 stories. The use of a 3 hour fire resistance rated assembly is permitted to be used as the grade plane for a residential building constructed above a parking garage (S-2) structure. The provisions also allow for the residential portions to exceed 4 stories (6 or 9 stories) in height. Therefore, the total building height would be much greater than 4 stories. Although the commentary provided in Section A.1.1 indicates that NFPA 13 would be applicable for buildings greater than 4 stories in height the wording provided in Section 6.8.2.4.2 would not only permit the use of NFPA 13R for these types of applications, but would in fact make the use mandatory. The information provided in this proposal should be included in the applicable building code(s) and not NFPA 13R. These sprinkler related requirements could have an impact on other building code provisions, which are not addressed in NFPA 13R. Therefore, this proposal should be rejected.

Comment on Affirmative:

NICKSON, R.: This code proposal was reviewed and modified by the NFPA 13R Task Group on Mixed Uses to address the application of the 13R sprinkler standard in buildings containing more than one occupancy classification. The proposal as modified addresses and clarifies the application of the 13R sprinkler standard as it is being used in actual practice as permitted by the national codes (NFPA 101, NFPA 5000, and IBC). Proposal 13R-58 (Log #37) as modified by the Task Group on Mixed Used and “Accepted in Principle” by the 13R Committee resolves this issue in a straightforward manner that is totally compatible in the use of the standard with the companion codes (i.e. NFPA 101, NFPA 5000, IBC). The only addition to the body of the NFPA 13R Code is the new, one sentence Section 1.1.1 which refers the code user to the requirements under the Building Code for “separated occupancies”; and the three (3) clarifications added to Annex Note A.1.1:

1. to correlate the building code terminology for “accessory” occupancies with NFPA 13R,
2. to explain how the building codes determine the height (stories above grade) of a building, and
3. to explain how the building codes determine height and stories under their “horizontally separated building code provisions”.

I disagree with the negative comment by Mr. Haagensen that this code proposal will create confusion. The proposal as accepted clarifies how sprinklers are to be installed in mixed use occupancies when part of that mixed use application is allowed to use the NFPA 13R sprinkler provisions.

The negative comment by Mr. Hopkins concerning Section 6.8.2.4.2 does not address the “Accepted in Principle” sections approved by the committee, because Section 6.8.2.4.2 was not included as part of the approved change. I believe the questions raised by his comment are addressed in the revised wording as accepted by the committee and that the proposals as accepted provides the guidance needed to understand how the NFPA 13R standard is to be used in buildings containing more than one occupancy classification.

This code proposal’s “Accept in Principle” is only clarifying what has been adequately and reasonably permitted under the other companion codes, and is totally in concert with the intent of NFPA 13R.

13R-59 Log #36 AUT-RSS
(A.3.31)

Final Action: Reject

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

Recommendation: Revise text as follows:

Rethink the idea of allowing multiple adjacent bathrooms to be unsprinklered.

Substantiation: Given the rather loose definition of a “compartment” there can be some rather sizable adjacent bathrooms in a row, all unsprinklered. There should be some limit to the total area that is not really separated and not protected with sprinklers. A fire could get very far out of hand without even encountering any sprinklers and do a great deal of damage.

Committee Meeting Action: Reject

Committee Statement: No language was proposed.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-60 Log #24 AUT-RSS **Final Action: Accept**
(A.5.2.2.2)

Submitter: David W. Ash, Lubrizol Advanced Materials

Recommendation: Revise text to read as follows:

A.5.2.2.2 Not all pipe or tube made to ASTM D 3309, Plastic Hot- and Cold-Water Distribution Systems, and ASTM F 442, Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR), as described in 5.2.2.2 is listed for fire sprinkler service. Listed pipe is identified by the logo of this listing agency.

All nonmetallic pipe and fitting materials may be damaged by contact with chemicals found in some construction products, such as thread sealants, leak detectors, firestops, etc. The chemical compatibility of such products with the particular pipe or fitting material must be verified prior to use. Otherwise, contact between the construction product and the pipe or fitting must be avoided.

Substantiation: Nonmetallic fire sprinkler system components can be susceptible to attack from various chemicals. This can result in damaged or cracked pipe. The manufacturer's installation instructions for nonmetallic pipe and fittings contain warnings about chemical compatibility and the potential for damage. Adding this information to the appendix of NFPA 13R will aid in making this warning known to a broader group.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-61 Log #23 AUT-RSS **Final Action: Accept**
(A.6.4.2)

Submitter: David W. Ash, Lubrizol Advanced Materials

Recommendation: Revise text to read as follows:

A.6.4.2 Testing of a system can be accomplished by pressurizing the system with water and checking visually for leakage at each joint or coupling unless specifically allowed by the manufacturer(s) of both the pipe and the fittings in their installation instructions. Where pressure testing systems have rigid thermoplastic piping, such as listed CPVC, or flexible piping, such as listed polybutylene, the sprinkler system should be filled with water. The air should be bled from the highest and farthest sprinklers before the test pressure is applied. Compressed air or compressed gas never should be used for pressure testing CPVC piping unless specifically allowed by the manufacturer(s) of both the pipe and the fittings in their installation instructions. Testing with air pressure is permitted for polybutylene piping where conducted in accordance with the testing procedures of 16.2.2.1 of NFPA 13, Standard for the Installation of Sprinkler Systems.

Fire department connections are not required for all systems covered by this standard but can be installed at the discretion of the owner. In these cases, hydrostatic tests in accordance with NFPA 13 are required.

Dry systems also should be tested by placing the system under air pressure. Any leak that results in a drop in system pressure greater than 2 psi (0.14 bar) in 24 hours should be corrected. Leaks should be identified using soapy water brushed on each joint or coupling. The presence of bubbles indicates a leak. This test should be made prior to concealing the piping.

Substantiation: This is merely an editorial correction. This wording was added to the wrong paragraph of the appendix when it was added during the 2007 cycle for NFPA 13R.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-62 Log #25 AUT-RSS **Final Action: Accept**
(A.6.4.2, B.1.2.1, and A.5.2.2.2)

Submitter: David W. Ash, Lubrizol Advanced Materials

Recommendation: Revise text to read as follows:

A.6.4.2 Testing of a system can be accomplished by pressurizing the system with water and checking visually for leakage at each joint or coupling unless specifically allowed by the manufacturer(s) of both the pipe and the fittings in their installation instructions. Where pressure testing systems have rigid thermoplastic piping, such as listed CPVC, or flexible piping, ~~such as listed polybutylene,~~ the sprinkler system should be filled with water. The air should be bled from the highest and farthest sprinklers before the test pressure is applied. Compressed air or compressed gas never should be used for pressure testing CPVC piping. ~~Testing with air pressure is permitted for polybutylene piping where conducted in accordance with the testing procedures of 16.2.2.1 of NFPA 13, Standard for the Installation of Sprinkler Systems.~~

Fire department connections are not required for all systems covered by this standard but can be installed at the discretion of the owner. In these cases, hydrostatic tests in accordance with NFPA 13 are required.

Dry systems also should be tested by placing the system under air pressure. Any leak that results in a drop in system pressure greater than 2 psi (0.14 bar) in 24 hours should be corrected. Leaks should be identified using soapy water brushed on each joint or coupling. The presence of bubbles indicates a leak. This test should be made prior to concealing the piping.

B.1.2 Other Publications.

B.1.2.1 ASTM Publications. American Society for Testing and Materials, 100

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

~~ASTM D 3309, Standard Specification for Polybutylene (PB) Plastic Hot- and Cold-Water Distribution Systems, 1995.~~

ASTM F 437, Standard Specification for Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, 1996.

ASTM F 438, Standard Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40, 1997.

ASTM F 439, Standard Specification for Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, 1997.

ASTM F 442, Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR), 1997.

IEEE/ASTM SI-10, Standard for Use of the International System of Units (SI): the Modern Metric System, 1997.

~~A.5.2.2.2 Not all pipe or tube made to ASTM D 3309, Standard Specification for Polybutylene (PB) Plastic Hot- and Cold-Water Distribution Systems, and ASTM F 442, Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR), as described in 5.2.2.2 is listed for fire sprinkler service. Listed pipe is identified by the log of the listing agency.~~

Substantiation: Polybutylene material has not been manufactured for a long time and should be removed from the standard.

Committee Meeting Action: Accept

Committee Statement: Correlate action with Proposal 13R-61 (Log #23).

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-63 Log #12 AUT-RSS **Final Action: Accept in Principle**
(A.6.7.4)

Submitter: Peter T. Schwab, Wayne Automatic Fire Sprinklers, Inc.

Recommendation: Revise text as follows:

The Fire Department connection should be connected to the System Riser. For single systems, it is an acceptable arrangement to attach the Fire Department Connection to any point in the system, provided the pipe is at least as large as the riser or calculations prove a smaller size is acceptable.

Substantiation: A pipe sized smaller than the riser should be allowed when additional calculations prove that the fire department apparatus can provide the required demand through such pipe.

Committee Meeting Action: Accept in Principle

Revise proposed language:

The Fire Department connection should be connected to the System Riser. For single systems, it is an acceptable arrangement to attach the Fire Department Connection to any point in the system, provided the pipe is at least the diameter of the fire department connection or as large as the riser, whichever is less, is at least as large as the riser or calculations prove a smaller size is acceptable.

Committee Statement: Revision clarifies committee's intent on the use of FDCs.

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-64 Log #34 AUT-RSS **Final Action: Accept**
(A.6.7.7.1.5.3 (New))

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

Recommendation: Add new text as follows:

"A.6.7.7.1.5.3 Care should be taken in positioning sprinklers in bathrooms near exhaust fan units. Some exhaust fan units have heaters built in to warm up the bathroom and these units have the potential to activate sprinklers. Combination exhaust fan and heater units should be treated as wall-mounted diffusers for the purposes of using Table 6.7.7.1.5.3."

Substantiation: There have been instances of unwanted sprinkler activations from bathroom exhaust fan units with built in heaters. Installers need to pay more attention to these kinds of details when determining where they are going to put sprinklers in bathrooms.

This proposal was approved by the National Fire Sprinkler Association's Engineering and Standards Committee.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.

13R-65 Log #46 AUT-RSS **Final Action: Accept**
(B.1.2.2)

Submitter: Bob Eugene, Underwriters Laboratories Inc.

Recommendation: Revise text to read as follows:

B.1.2.2 UL Publications. Underwriters Laboratories Inc., 333 Pingston Road, Northbrook, IL 60062-2096.

~~ANSI/UL 1626, Residential Sprinklers for Fire-Protection Service, 2001~~
2003.

Substantiation: Update referenced standards to current editions in conformance with NFPA Manual of Style Section 1.6.2.3 and 3.6.3.1.3.

Committee Meeting Action: Accept

Number Eligible to Vote: 28

Ballot Results: Affirmative: 23

Ballot Not Returned: 5 Baker, G., Ketner, C., Madrzykowski, D., Maruskin, M., Schirmer, C.