

2009 Fall Revision Cycle

Report on Proposals

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

Public Comment Deadline: March 6, 2009

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 2010 Association Technical Meeting to be held June 7–11, 2010, at Mandalay Bay Convention Center in Las Vegas, NV, when proper Amending Motions have been submitted to the NFPA by the deadline of October 23, 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 Fall Revision Cycle ROP Contents

by NFPA Numerical Designation

Note: Documents appear in numerical order.

NFPA No.	Type Action	Title	Page No.
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11	P	Standard for Low-, Medium-, and High-Expansion Foam.....	11-1
13E	P	Recommended Practice for Fire Department Operations in Properties Protected by Sprinkler and Standpipe Systems.....	13E-1
14	P	Standard for the Installation of Standpipe and Hose Systems.....	14-1
18	P	Standard on Wetting Agents	18-1
37	P	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines	37-1
45	P	Standard on Fire Protection for Laboratories Using Chemicals.....	45-1
53	P	Recommended Practice on Materials, Equipment, and Systems Used in Oxygen-Enriched Atmospheres	53-1
70B	P	Recommended Practice for Electrical Equipment Maintenance	70B-1
91	P	Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	91-1
120	P	Standard for Fire Prevention and Control in Coal Mines	120-1
122	P	Standard for Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities.....	122-1
204	P	Standard for Smoke and Heat Venting	204-1
211	P	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances	211-1
214	P	Standard on Water-Cooling Towers	214-1
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276	N	Standard Method of Fire Test for Determining the Heat Release Rate of Roofing Assemblies with Combustible Above-Deck Roofing Components	276-1
326	P	Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair	326-1
329	P	Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases	329-1
405	P	Standard for the Recurring Proficiency of Airport Fire Fighters	405-1
408	P	Standard for Aircraft Hand Portable Fire Extinguishers	408-1
409	P	Standard on Aircraft Hangars	409-1
410	P	Standard on Aircraft Maintenance	410-1
422	P	Guide for Aircraft Accident/Incident Response Assessment	422-1
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551	P	Guide for the Evaluation of Fire Risk Assessments	551-1
600	R	Standard on Industrial Fire Brigades	600-1
601	R	Standard for Security Services in Fire Loss Prevention	601-1
701	P	Standard Methods of Fire Tests for Flame Propagation of Textiles and Films	701-1
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805	P	Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants.....	805-1
806	N	Performance-Based Standard for Fire Protection for Advanced Nuclear Reactor Electric Generating Plants.....	806-1
850	P	Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations.....	850-1
851	P	Recommended Practice for Fire Protection for Hydroelectric Generating Plants	851-1
853	P	Standard for the Installation of Stationary Fuel Cell Power Systems	853-1
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1250	P	Recommended Practice in Emergency Service Organization Risk Management.....	1250-1
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1452	P	Guide for Training Fire Service Personnel to Conduct Dwelling Fire Safety Surveys	1452-1
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1936	P	Standard on Powered Rescue Tools.....	1936-1
1952	N	Standard on Surface Water Operations Protective Clothing and Equipment.....	1952-1
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**2009 Fall Revision Cycle ROP
Committees Reporting**

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211	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances	P	211-1
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851	Recommended Practice for Fire Protection for Hydroelectric Generating Plants	P	851-1
853	Standard for the Installation of Stationary Fuel Cell Power Systems	P	853-1
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1250	Recommended Practice in Emergency Service Organization Risk Management	P	1250-1
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Electronic Safety Equipment			
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Special Operations Protective Clothing and Equipment			
1952	Standard on Surface Water Operations Protective Clothing and Equipment	N	1952-1
Wildland Fire Fighting Protective Clothing and Equipment			
1977	Standard on Protective Clothing and Equipment for Wildland Fire Fighting	P	1977-1
Fire Department Ground Ladders			
1931	Standard for Manufacturer’s Design of Fire Department Ground Ladders	P	1931-1
1932	Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders	P	1932-1
Fire Department Rescue Tools			
1936	Standard on Powered Rescue Tools	P	1936-1

Fire Protection for Nuclear Facilities				
804	Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants	P		804-1
805	Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants	P		805-1
806	Performance-Based Standard for Fire Protection for Advanced Nuclear Reactor Electric Generating Plants	N		806-1
Fire Risk Assessment Methods				
551	Guide for the Evaluation of Fire Risk Assessments	P		551-1
Fire Service Occupational Safety and Health				
1581	Standard on Fire Department Infection Control Program	P		1581-1
Fire Service Training				
13E	Recommended Practice for Fire Department Operations in Properties Protected by Sprinkler and Standpipe Systems	P		13E-1
1407	Standard for Fire Service Rapid Intervention Crews	N		1407-1
1410	Standard on Training for Initial Emergency Scene Operations	P		1410-1
1452	Guide for Training Fire Service Personnel to Conduct Dwelling Fire Safety Surveys	P		1452-1
Fire Tests				
255	Standard Method of Test of Surface Burning Characteristics of Building Materials	W		255-1
276	Standard Method of Fire Test for Determining the Heat Release Rate of Roofing Assemblies with Combustible Above-Deck Roofing Components	N		276-1
701	Standard Methods of Fire Tests for Flame Propagation of Textiles and Films	P		701-1
Foam				
11	Standard for Low-, Medium-, and High-Expansion Foam	P		11-1
Forest and Rural Fire Protection				
1150	Standard on Foam Chemicals for Fires in Class A Fuels	P		1150-1
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91	Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	P		91-1
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37	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines	P		37-1
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601	Standard for Security Services in Fire Loss Prevention	R		601-1
Mining Facilities				
120	Standard for Fire Prevention and Control in Coal Mines	P		120-1
122	Standard for Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities	P		122-1
Oxygen-Enriched Atmospheres				
53	Recommended Practice on Materials, Equipment, and Systems Used in Oxygen-Enriched Atmospheres	P		53-1
Portable Fire Extinguishers				
10	Standard for Portable Fire Extinguishers	P		10-1

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1035	Standard for Professional Qualifications for Public Fire and Life Safety Educator	P	1035-1
Smoke Management Systems			
204	Standard for Smoke and Heat Venting	P	204-1
Standpipes			
14	Standard for the Installation of Standpipe and Hose Systems	P	14-1
Subterranean Spaces			
520	Standard on Subterranean Spaces	P	520-1
Tank Leakage and Repair Safeguards			
326	Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair	P	326-1
329	Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases	P	329-1
Water Additives for Fire Control and Vapor Mitigation			
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Water-Cooling Towers			
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750	Standard on Water Mist Fire Protection Systems	P	750-1

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 FALL REVISION CYCLE
FINAL DATE FOR RECEIPT OF COMMENTS: 5:00 pm EST, March 6, 2009**

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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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**

10/31/2008

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 Committee on**Portable Fire Extinguishers**

David J. Burkhart, *Chair*
Code Consultants, Inc., MO [SE]

Richard J. Fairclough, *Secretary*
Brooks Equipment Company, Inc., NC [M]
(Alt. to Mark T. Conroy)

Dennis D. Brohmer, Tyco Fire & Security/Ansul Inc., WI [M]
Jonathan E. Carpenter, FM Global (FM Approvals), MA [I]
Mark T. Conroy, Brooks Equipment Company, MA [M]
Fred B. Goodnight, Amerex Corporation, AL [M]
Rep. Compressed Gas Association
Richard R. Harrington, Frye Consulting, Ltd., CA [SE]
Ernest E. Horvath, Reliable Fire Equipment Company, IL [IM]
Rep. National Assn. of Fire Equipment Distributors
Michael J. Laderoute, MJL Associates, Inc., VA [M]
Rep. Fire Equipment Manufacturers' Association
George E. Laverick, Underwriters Laboratories Inc., IL [RT] ()
J. R. Nerat, Kidde/Badger Fire Protection, MI [M]
Rep. NFPA Industrial Fire Protection Section
James A. Oldham, Duke Energy, NC [U]
Rep. Edison Electric Institute
Richard R. Osman, Schirmer Engineering Corporation, IL [I]
Joseph E. Parkany, Nuclear Service Organization, DE [I]
John E. Reiter, The AES Corporation, VA [U]
R. Craig Schroll, FIRECON, PA [SE]
Klaus Wahle, US Coast Guard, DC [E]

Alternates

Randall Eberly, US Coast Guard, DC [E]
(Alt. to Klaus Wahle)
Rod Getz, Getz Fire Equipment, IL [IM]
(Alt. to Ernest E. Horvath)
Robert Kasiski, FM Global, MA [I]
(Alt. to Jonathan E. Carpenter)
Lucas E. Kirn, Code Consultants, Inc., MO [SE]
(Alt. to David J. Burkhart)
Michael T. Larabel, Alticor, Inc. - 44B-1C, MI [M]
(Alt. to J. R. Nerat)
Anthony Morizio, Tyco/SimplexGrinnell, NY [M]
(Alt. to Dennis D. Brohmer)
Byron J. Sarago, Detroit Edison Company, MI [U]
(Alt. to James A. Oldham)
Peter M. Shank, Nuclear Service Organization, DE [I]
(Alt. to Joseph E. Parkany)
George Unger, Underwriters' Laboratories of Canada, Canada [RT]
(Alt. to George E. Laverick)

Nonvoting

Marshall Petersen, Marshall Petersen & Company, IL [SE]
(Member Emeritus)

Staff Liaison: **Timothy A. Hawthorne**

Committee Scope: This Committee shall have primary responsibility for documents on the installation, maintenance, and use of portable fire extinguishers and equipment. Does not apply to permanently installed fire extinguishing systems even though portions of those systems are portable, such as hose and nozzles, which may be attached to a fixed supply of extinguishing agent.

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

The Report of the Technical Committee on **Portable Fire Extinguishers** is presented for adoption.

This Report was prepared by the Technical Committee and proposes for adoption amendments to NFPA 10, **Standard for Portable Fire Extinguishers**, 2007 edition. NFPA 10-2007 is published in Volume 1 of the 2008 National Fire Codes and in separate pamphlet form.

This Report has been submitted to letter ballot of the **Technical Committee on Portable Fire Extinguishers** which consists of 16 voting members and is reporting in three Segments.

This proposal in Segment No. 1 is reported as "Reject" as it did not receive the $\frac{2}{3}$ affirmative vote.

Segment No. 1 consists of 10-85 (Log #CP34).

On Segment No. 1 Proposal 10-85 (Log #CP34), 9 voted affirmatively, 6 negatively after circulation of negative ballots (D. Brohmer, J. Carpenter, F. Goodnight, E. Horvath, M. Laderoute, and J.R. Nerat), 1 ballot was not returned (R. Harrington).

Mr. Conroy voted affirmative with the following comment:

Paragraph 8.1.2.1.1.1 (Proposal 10-85) is necessary if paragraph 8.1.2.1.1 (Proposal 10-84) is added. Facilities such as dive shops and welding supply companies currently provide hydrostatic testing services and are regulated by the DOT. Omission of this paragraph would create confusion regarding the authority of the DOT.

Mr. Brohmer voted Negative stating:

DOT certification doesn't cover the disassembly and reassembly of portable extinguishers. Facilities such as dive shops, welding shops, etc., perform hydro testing of cylinders but most are not skilled in the knowledge of portable extinguishers pertaining to hydrostatic testing of hose assemblies, replacement of safety disc, reassembly of valves, proper positioning and installation of banding, proper torque of valve assembly, etc. This knowledge is specific to the brand of extinguisher and is only learned by training performed by the manufacturer of the extinguisher. Allowing persons not certified to perform hydrostatic testing could possibly place an end user in harms way.

Mr. Carpenter voted Negative stating:

The way in which Log #CP34 is written as "DOT or TC certification as a hydrostatic testing facility shall be permitted to fulfill the requirements of 8.1.2.1.1" is an exception to Log #70. The AHJ is responsible to determine if an organization is acceptable. This proposal would give a regulatory body, the DOT or TC, the power to override what the AHJ deems acceptable ultimately rendering the AHJ powerless should the testing location be DOT or TC certified. Section 8.1.2 already states that cylinders or cartridges with DOT or TC marking must be retested in accordance with the applicable DOT or TC regulations which mandate that the testing outfit be DOT or TC certified.

Mr. Goodnight voted Negative stating:

This proposal is not needed. It is not the responsibility of the technical committee to determine what is acceptable to an AHJ – we can recommend, but that type of information belongs in the annex, not the body of the standard.

Mr. Horvath voted Negative stating:

As per the comments of other members who have voted negative, I wish to change my vote to negative.

Mr. Laderoute voted Negative stating:

DOT certification doesn't cover the disassembly and reassembly of portable extinguishers. Facilities such as dive shops, welding shops, etc., perform hydro testing of cylinders but most are not skilled in the knowledge of portable extinguishers pertaining to hydrotesting of hose assemblies, replacement of safety relief disc, reassembly of valves, proper positioning and installation of banding, proper torque of valve assembly, etc. This knowledge is specific to the brand of extinguishers and is only learned by training performed by the manufacturer of the extinguisher. Allowing persons not certified, as required by Log #70, to perform hydrotesting could possibly place an end user in harms way.

Mr. Nerat voted Negative stating:

DOT and TC certification only addresses specification cylinders and not other extinguisher service requirements. Specific extinguisher equipment examination, recharge and maintenance procedure knowledge is also necessary.

Segment No. 2 consists of Proposal 10-84 (Log-70).

On Segment No. 2 Proposal 10-84 (Log #70), 13 voted affirmatively, 2 negatively after circulation of negative ballots (Conroy, Nerat), and 1 ballot was not returned (Harrington).

Mr. Conroy voted Negative stating:

There is currently confusion regarding the certification issue. Actions on Proposals 10-11, 10-40, and 10-95 provide clarification on the issue. This proposal (Proposal 10-84) creates unnecessary confusion. The substantiation for Proposal 10-84 is lacking in that it does not provide a technical substantiation to support the recommended change. I would only support the acceptance of Proposal 10-84 with the addition of a subparagraph recognizing DOT or TC certification (see Proposal 10-85).

Mr. Nerat voted negatively stating:

2007 edition paragraphs 7.1.2.2 and 7.1.2.3 included hydrostatic testing within "service" definition. This proposal is problematic in that it implies a separate certification is required for performing hydrostatic testing.

Segment No. 3 consists of Proposals 10-1 (Log #CP28) through 10-83 (Log #CP33) and 10-86 (Log #12) through 10-110 (Log #89).

On Segment No. 3 Proposal 10-1 (Log #CP28) through 10-83 (Log #CP33) and 10-86 (Log #12) through 10-110 (Log #89), 15 voted affirmatively, and 1 ballot was not returned (Harrington).

10-1 Log #CP28 **Final Action: Accept**
(Entire Document)

Submitter: Technical Committee on Portable Fire Extinguishers,
Recommendation: Review entire document to: 1) Update any extracted material by preparing separate proposals to do so, and 2) review and update references to other organizations documents, by preparing proposal(s) as required.
Substantiation: To conform to the NFPA Regulations Governing Committee Projects.
Committee Meeting Action: Accept

10-2 Log #CP31 **Final Action: Accept in Principle**
(Entire Document)

Submitter: Technical Committee on Portable Fire Extinguishers,
Recommendation: Manual of Style changes.
NFPA 10 Editorial changes from Manual of Style

1. 6.1.3.7 Fire extinguishers installed under conditions where they are subject to physical damage (e.g., from impact, vibration, the environment) shall be adequately protected against damage.

2. 1.3.1.3 A given equivalent value can shall be permitted to be considered approximate.

3. 5.3.2.6* Use of halogenated agent fire extinguishers shall be limited to applications where a clean agent is necessary to extinguish fire efficiently without damaging the equipment or area being protected, or where the use of alternate agents can have the potential to cause a hazard to personnel in the area.

4. 5.4.2.3 Fire extinguishers provided for building protection can shall be permitted to also be considered for the protection of occupancies having a Class A fire potential.

5. Table 6.3.1.1 Fire Extinguisher Size and Placement for Class B Hazards

Notes:

(1) The specified ratings do not imply that fires of the magnitudes indicated by these ratings will occur, but rather they are provided to give the operators more time and agent to handle difficult spill fires that could have the potential to occur.

(2) For fires involving water-soluble flammable liquids, see 5.5.4.

(3) For specific hazard applications, see Section 5.5.

6. 7.4.4.2.2 An unregulated source of pressure, such as a nitrogen cylinder without a pressure regulator, shall never be used because the fire extinguisher could has the potential to be overpressurized and possibly rupture.

7. 6.3.2.7.2 A fire extinguisher in the proximity of a hazard shall be carefully located to be accessible in the presence of a fire without undue danger to the operator.

8. 4.1.1 Portable fire extinguishers used to comply with this standard shall be listed and labeled and shall meet or exceed all the requirements of one of the fire test standards and one of the appropriate applicable performance standards shown as follows:

9. 8.1.2 Cylinders and cartridges bearing DOT or TC markings shall be retested in accordance with the appropriate applicable DOT or TC regulations.

10. 6.3.2.2* Where personnel who are trained in extinguishing fires in the protected hazards are available located on the premises and capable of responding immediately, the maximum surface area shall not exceed 20 ft² (1.86 m²).

11. 3.3.15 Extinguisher Maintenance. A thorough examination of the fire extinguisher. It is intended to give maximum assurance that a fire extinguisher will operate effectively as intended and safely. It includes a thorough examination for physical damage or condition to prevent its operation and any necessary repair or replacement. It will normally reveal if hydrostatic testing or internal maintenance is required.

12. 5.4.1 Classifying Occupancy Hazard. Rooms or areas shall be classified generally as being light (low) hazard, ordinary (moderate) hazard, or extra (high) hazard.

13. 8.5.4.7.1 Observations shall be made to note detect any distortion or leakage while the hose is pressurized.

14. 3.4.2* Nonrechargeable (Nonrefillable) Fire Extinguisher. A fire extinguisher not capable of (nor intended to be capable of) undergoing complete maintenance, hydrostatic testing, and being restored to its full operating capability by the standard practices procedures used by fire equipment dealers and distributors.

15. 7.4.3.7* Halogenated Agent. Halogenated agent fire extinguishers shall be charged only with the proper type and weight of agent as specified on the nameplate.

16. 7.4.4.1* Pressure Gauges. Replacement pressure gauges shall have the proper correct indicated charging (service) pressure, shall be marked for use with the agent in the fire extinguisher, and shall be compatible with the fire extinguisher valve body material.

17. 4.2* Identification of Contents. A fire extinguisher shall have a label, tag, or stencil, or similar indicator attached to it providing the following information:

18. 8.1.4 Hydrostatic testing shall be conducted using water or some other another compatible noncompressible fluid as the test medium.

19. 8.5.1.2.1 On some certain dry chemical and dry powder fire extinguishers (cartridge-operated), where the manufacturer recommends that certain internal parts not be removed, those parts shall not be removed.

Substantiation: NFPA 10 Editorial changes from Manual of Style

Committee Meeting Action: Accept in Principle

Committee Statement: Accept these manual of style changes.

10-3 Log #21 **Final Action: Reject**
(2.2)

Submitter: Leo Macdonald, Independent Products LLC

Recommendation: Add new text as follows:

NFPA 2001; Standard on Clean Agent Fire Extinguishing Systems. 2008 edition.

Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject

Committee Statement: NFPA 2001 Standard is not used in NFPA 10; therefore it does not need to be referenced.

10-4 Log #77
(2.3.2)**Final Action: Accept in Principle****Submitter:** Norbert W. Makowka, National Association of Fire Equipment Distributors**Recommendation:** Revise text to read as follows:**2.3.2 CGA Publications.** Compressed Gas Association, 4221 Walney Road, 5th Floor, Chantilly, VA 20151-2923.CGA C-1, *Methods of Hydrostatic Testing of Compressed Gas Cylinders*, 2004 2006.**Substantiation:** The 2006 Edition is the latest edition of this document.**Committee Meeting Action: Accept in Principle**

Accept in Principle to accept in the body of standard and also in the Annex K.1.2.1

Committee Statement: Make the dates coincide between the annex and body of the Standard.10-5 Log #88
(2.3.4)**Final Action: Accept in Principle****Submitter:** Bob Eugene, Underwriters Laboratories Inc.**Recommendation:** Revise text as follows:**2.3.4 UL Publications.**

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

ANSI/UL 8, Standard for Foam Fire Extinguishers, 2005, Revised 2007.

ANSI/UL 154, Standard for Carbon-Dioxide Fire Extinguishers, 2005, Revised 2007.

ANSI/UL 299, Standard for Dry Chemical Fire Extinguishers, 2005 2007.

ANSI/UL 626, Standard for 21/2-Gallon Stored-Pressure, Water-Type Fire Extinguishers, 2005 2007.

ANSI/UL 711, Standard for Rating and Testing of Fire Extinguishers, 2005 2007.

ANSI/UL 1093, Standard for Halogenated Agent Fire Extinguishers, 2005.

ANSI/UL 1803, Standard for Factory Follow-up on Third Party Certified Portable Fire Extinguishers, 2005 2006.

ANSI/UL 2129, Standard for Halocarbon Clean Agent Fire Extinguishers, 2005 2007.

Substantiation: Updated referenced standards to include the most recent revisions.**Committee Meeting Action: Accept in Principle**

Revise text as follows:

2.3.4 UL Publications.

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

ANSI/UL 8, Standard for Foam Fire Extinguishers, 2005, Revised 2007.

ANSI/UL 154, Standard for Carbon-Dioxide Fire Extinguishers, 2005, Revised 2007.

ANSI/UL 299, Standard for Dry Chemical Fire Extinguishers, 2005 2002, Revised 2007.

ANSI/UL 626, Standard for 21/2-Gallon Stored-Pressure, Water-Type Fire Extinguishers, 2005, Revised 2007.

ANSI/UL 711, Standard for Rating and Testing of Fire Extinguishers, 2005 2004, Revised 2007.

ANSI/UL 1093, Standard for Halogenated Agent Fire Extinguishers, 2005 1995, Revised 2000.

ANSI/UL 1803, Standard for Factory Follow-up on Third Party Certified Portable Fire Extinguishers, 2005 2006 Revised 2008.

ANSI/UL 2129, Standard for Halocarbon Clean Agent Fire Extinguishers, 2005, Revised 2007.

Committee Statement: Change titles to coincide with correct titles of the updated referenced editions. Also update the titles and editions in the Annex to coincide with the body of the Standard.10-6 Log #87
(2.3.5)**Final Action: Accept****Submitter:** Bob Eugene, Underwriters Laboratories Inc.**Recommendation:** Revise text to read as follows:**2.3.5 ULC Publications.**

Underwriters Laboratories of Canada, 7 Underwriters Road, Toronto, Ontario M1R 3B4, Canada.

CAN/ULC-S503, Standard for Carbon-Dioxide Fire Extinguishers, 2005, Revised 2007.

CAN/ULC-S504, Standard for Dry Chemical Fire Extinguishers, 2005, Revised 2007.

CAN/ULC-S507, Standard for Water Fire Extinguishers, 2005, Revised 2007.

CAN/ULC-S508, Standard for Rating and Testing of Fire Extinguishers, 2004, Revised 2007.

CAN/ULC-S512, Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers, 2005, Reaffirmed 2007.

CAN/ULC-S554, Standard for Water Based Agent Fire Extinguishers, 2005, Revised 2007.

CAN/ULC-S566, Standard for Halocarbon Clean Agent Fire Extinguishers, 2005, Revised 2007.

Substantiation: Updated referenced standards to include the most recent revisions.**Committee Meeting Action: Accept**

10-7 Log #78

Final Action: Accept in Principle

(2.3.6)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors**Recommendation:** Revise text to read as follows:

U.S. Government Printing Office, Washington, DC 20402.

Title 49, Code of Federal Regulations, Part 180.209(b), 2004 2007.

Title 49, Code of Federal Regulations, Part 180.213(c)(1), 2004 2007.

Substantiation: The 2007 Edition is the latest edition of these documents.**Committee Meeting Action: Accept in Principle**

Add year of correct titled publications to Annex K.1.2.4

Committee Statement: Edits have also been made in K.

Edits have also been made in K.1.2.4.

10-8 Log #6

Final Action: Reject

(3.3.x Combustible Cooking Media (New))

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee**Recommendation:** Add a new definition to read:

3.x Combustible cooking media (vegetable or animal oils and fats) are those with a depth greater than 2 in. (50.8 mm).

Substantiation: The committee is looking for a definition for combustible cooking media and when a Class B or K extinguisher is needed. This is needed to determine the appropriate extinguisher to place in the area of cooking. Does a pan with an inch of cooking oil constitute the placement and use of a Class K extinguisher? Guidance is needed to assist the AHJ.**Committee Meeting Action: Reject****Committee Statement:** Contradicts Formal Interpretation 10-02-2, which clarifies the intent of the Committee.

10-9 Log #22

Final Action: Accept in Part

(3.3.x Clean Agent and 3.3.x Inert Gas Agent (New))

Submitter: Leo Macdonald, Independent Products LLC**Recommendation:** Revise text as follows:Clean Agent: Electrically non-conducting, volatile, or gaseous fire extinguishant that does not leave a residue upon evaporation. (see NFPA 2001, 2008 ed, section 3.3.6)Inert Gas Agent: An agent that contains as primary components one or more of the gases helium, neon, argon, or nitrogen. Inert gas agents that are blends of gases can also contain carbon dioxide as a secondary component. (see NFPA 2001, 2008 ed, section 3.3.14).**Substantiation:** Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gases: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is

currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Accept in Part

Revise text as follows:

3.3.X Clean Agent: Electrically non-conducting, volatile, or gaseous fire extinguishant that does not leave a residue upon evaporation.

Committee Statement: Inert Gas is not used in the standard. Currently, these extinguishers are not available and they are not listed. Section 1.2.2 does not prohibit the use of these extinguishers when acceptable to the Authority Having Jurisdiction.

Committee action allows the submitter to work with listing laboratories to develop a performance standard.

10-10 Log #13 **Final Action: Accept in Principle**
(3.3.x Pressurized Flammable Liquid (New))

Submitter: Mark S. Connolly, Fire Fighter Sales & Service Co.

Recommendation: Add new text to read as follows:

Pressurized Flammable Liquid. A flammable liquid that is stored under pressure, either by its own characteristics or by a secondary source of pressure.

Substantiation: There has been some confusion based on the requirements of 5.5.1.1 as to what is considered a "pressurized" flammable liquid. A definition is needed to clarify the intent of 5.5.1.1

Committee Meeting Action: Accept in Principle

Revise wording as follows:

3.3.X Pressurized Flammable Liquid Fires. Fires resulting from liquids that are forced, pumped, or sprayed.

Committee Statement: Committee's language better clarifies what Section 5.5.1.1 should be applied to. New wording was extracted from Section C.2.6(5) of NFPA 10.

10-11 Log #30 **Final Action: Accept in Part**
(3.3.4 Certified, A.3.3.4, 7.1.2.1, 7.1.2.2, and 8.8.2.1)

Submitter: Mark T. Conroy, Brooks Equipment Company

Recommendation: Add new, delete and revise text to read as follows:

- Delete 3.3.4.
- Delete A.3.3.4.
- Insert a new 3.3.4 to read as follows:
3.3.4 Certified. A formally stated recognition and approval of an acceptable level of competency, acceptable to the AHJ.
- Insert a new A.3.3.4 to read as follows:
A.3.3.4 Certified. A certification program for portable fire extinguisher technicians should require a candidate to successfully pass a multiple choice examination based on the body chapters and annex sections of this standard.

- Retain existing 7.1.2.1 and 7.1.2.2.
- Revise 8.8.2.1 to read as follows:
8.2.1.1 Certification of test pressure gauges shall be required and shall be accurate to within ± 0.5 percent or better of the full range of the gauge.

Substantiation: The current definition has created much confusion in the industry. The AHJ ultimately determines acceptable testing programs. The proposed definition appears in NFPA 96. The new definition works very well with the requirements in 7.1.2.1 and 7.1.2.2. The new A.3.3.4 provides the information on a reasonable method for testing extinguisher technicians. Paragraph 8.8.2.1 was revised to remove the defined term "certified" and to clarify the requirement.

Committee Meeting Action: Accept in Part

Accept in Part items 1 & 2 as follows:

- Delete 3.3.4.
- Delete A.3.3.4.

Committee Statement: Definitions are no longer necessary with clarification of Section 7.1.2.1. (See Committee Action on Proposal 10-40 (Log #41))

10-12 Log #68 **Final Action: Accept in Principle**
(3.3.4 Certified Person and A.3.3.4)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Delete 3.3.4 entirety. Including annex material.

Substantiation: The term Certified Person is no longer used in the standard.

Committee Meeting Action: Accept in Principle

Committee Statement: See Proposal 10-11 (Log #30)

10-13 Log #73 **Final Action: Accept in Principle in Part**
(3.3.18 Frequencies (New))

Submitter: Peter A. Larrimer, Pittsburgh, PA

Recommendation: Add new text as follows:

- 3.3.18 Frequencies:
1. Weekly - 52 times per year, once per calendar week.
2. Monthly - 12 times per year, once per calendar month.
3. Quarterly - 4 times per year with a minimum interval of 2 months, maximum of 4 months.
4. Semi-annual - 2 times per year with a minimum interval of 4 months, maximum of 8 months.

5. Annual - 1 time per year with a minimum interval of 9 months, maximum 15 months.

Substantiation: The frequency definitions provided in this proposal are taken from a proposal to NFPA 72 (slightly modified with the addition of the word "interval") that was recently accepted. The definitions provided will allow code language to be well defined when a frequency is stated since the user will be able to determine exactly what the frequency means. For example, monthly inspection of fire extinguishers will require 12 inspections, one per calendar month and no day of the month will be necessary to be recorded on the inspection tag. This would not change the intent of the existing code, but would allow all users and AHJ to recognize what the monthly requirement means.

Please see the companion proposal provided to address the code language of paragraph 7.2.1.2.

Committee Meeting Action: Accept in Principle in Part

Add annex as follows:

A.7.2.1.2 Inspections are performed on extinguishers, 12 times per year, once per month.

Committee Statement: Committee action meets the submitter's intent. Terms weekly, quarterly, semiannually are not used in the standard. The term annual does not need clarification.

10-14 Log #79 **Final Action: Accept in Principle**
(3.4.5)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Move this entire section to Annex F Section F.3 and renumber accordingly.

Substantiation: All requirements for residential fire extinguishers were moved to Annex F and are not included in the body of the standard. Therefore, the definitions should not be included in Chapter 3.

Committee Meeting Action: Accept in Principle

Add new Section F.1 Definitions:

Move this entire section to Annex F Section F.3.1 and renumber accordingly.

Committee Statement: These definitions are not used in the standard.

10-15 Log #94 **Final Action: Accept in Principle**
(3.4.9 Water Type Extinguisher)

Submitter: J. R. Nerat, Badger Fire Protection

Recommendation: Revise text to read as follows:

3.4.9 Water Type Extinguisher. A water-type fire extinguisher contains water-based agents such as water, AFFF, FFFP, antifreeze, ~~and~~ loaded stream, and wet chemical.

Substantiation: Clarification. When wet chemical water based agents were added to the 1998 edition of this standard this paragraph was not updated.

Committee Meeting Action: Accept in Principle

3.4.9 Water Type Extinguisher. A water-type fire extinguisher contains water-based agents such as water, AFFF, FFFP, antifreeze, ~~and~~ loaded stream, and wet chemical.

Committee Statement: Remove the words indicated. they are not in the current language:

10-16 Log #35 **Final Action: Reject**
(4.4(11))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

4.4 (11) Any ~~stored pressure~~ extinguisher manufactured prior to 1955.

Substantiation: Extinguishers manufactured prior to 1955 used a completely different numerical rating system that does not correspond to current requirements in the Standard. A rating of C, C-1 and C-2 were available prior to 1955. The current Standard only refers to a C rating with no numerical value. Prior to 1955, the numerical rating system for Class B rated fire extinguishers consisted of a B, B-1 and B-2 rating – with B being the highest rating and B-2 being the lowest rating (see G.2 – paragraphs 6 and 7). The current Standard has requirements for 5B, 10B, 20B, 40B, and 80B depending upon classification of hazard and travel distance. The numerical rating system used prior to 1955 does not match the current requirements.

There is guidance for assigning equivalent ratings for these extinguishers that are more than a half century old (see Table G.2), but the table is arbitrary (since there is no fire testing to confirm these numbers – they may be smaller or larger) and it is difficult to use since the end user, agency performing maintenance or the local authority must determine agent and agent capacity in order to perform the conversion. Paragraph 4.4.2 requires any extinguisher that can no longer be maintained in accordance with the manufacturer's manual to be removed from service. These extinguishers are in excess of 50 years old – the probability that OEM parts, maintenance and recharge manuals and other necessary items are available is remote at best. Extinguishers manufactured prior to 1955 were not constructed, tested or rated to the rating numbering systems used for the last 50+ years and the old labels can cause confusion. Also, no listed parts are available for the extinguishers and the formulations of the dry chemical agents have changed significantly since their original production.

Committee Meeting Action: Reject

Committee Statement: Material in Annex G allow these extinguishers to remain in service as long as they can be tested and maintained.

10-17 Log #34 **Final Action: Accept in Principle**
(4.4.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

Dry chemical stored pressure hand portable extinguishers manufactured prior to October 1984 shall be removed from service at the next 6 year maintenance interval or the next hydrotest interval, whichever comes first.

Substantiation: There is some confusion in the field regarding the removal of pre-October 1984 stored pressure dry chemical extinguishers. Some are placing this requirement upon wheeled units. Wheeled units were not the subject of the novice fire testing that affected the changes in UL 299 in 1984, nor do I believe it was the intent of the committee to include wheeled extinguishers in this requirement.

Committee Meeting Action: Accept in Principle

Revise text to read as follows:

Dry chemical stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next 6 year maintenance interval or the next hydrotest interval, whichever comes first.

Add a new paragraph as follows:

4.4.1.1 Section 4.4.1 shall not apply to wheeled-type dry-chemical stored-pressure fire extinguishers.

Committee Statement: This section was not intended to be applied to wheeled-type units since these types of extinguishers were not affected by the changes in the testing laboratories guidelines.

10-18 Log #80 **Final Action: Reject**
(4.4.1)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Revise text to read as follows:

4.4.1 ~~Dry chemical~~ Stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next 6-year maintenance interval or the next hydrotest interval, whichever comes first.

Substantiation: This requirement should also apply to halon fire extinguishers that were manufactured prior to October 1984. These extinguishers were tested, labeled, and supplied using the same or similar requirements as the dry chemical extinguishers.

Committee Meeting Action: Reject

Committee Statement: Substantiation does not provide technical justification to support proposed language.

10-19 Log #9 **Final Action: Reject**
(4.4.1.1 (New))

Submitter: Jon Nisja, Northcentral Regional Fire Code Development Committee

Recommendation: Add a new section to read:

4.4.1 Dry chemical stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next 6-year maintenance interval or the next hydrotest interval, whichever comes first.

4.4.1.1 Where a pictograph operation sticker has been installed on the extinguisher pre 1984 extinguishers are permitted to remain in service.

Substantiation: An email from NFPA staff on the reason for the requirement to remove extinguishers prior to 1984 was due to lack of a pictograph depicting fire extinguisher operation. There is no need to remove extinguishers where a 50 cent sticker can be placed on the extinguisher to keep it in service. This placed an undue burden on the consumer.

Committee Meeting Action: Reject

Committee Statement: There are more reasons than pictographs to keep these extinguishers out of service.

10-20 Log #23 **Final Action: Reject**
(5.3.2)

Submitter: Leo Macdonald, Independent Products LLC

Recommendation: Add new text as follows:

5.3.2.8. Selection of inert gas agent extinguishers shall be in accordance with the listing and labeling of the extinguisher as to the specific hazard class as determined by the manufacturer and the listing agency.

5.3.2.8.1. Installation and use of inert gas agent extinguishers shall conform to sizing and capacity labeling and instructions as provided by the manufacturer.

Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001,

2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gases: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject

Committee Statement: Currently, these extinguishers are not available and they are not listed.

Section 1.2.2 does not prohibit the use of these extinguishers when acceptable to the Authority Having Jurisdiction.

Action allows the submitter to work with listing laboratories to develop a performance standard. Submitter is further encouraged to submit technical justification in accordance with the required fire test standards.

10-21 Log #90 **Final Action: Accept in Principle**
(5.3.2.6)

Submitter: Bradford Colton, American Pacific Corporation

Recommendation: Revise Section 5.3.2.6 as follows:

5.3.2.6* Use of ~~halogenated~~ halon agent fire extinguishers shall be limited to applications where a clean agent is necessary to extinguish fire efficiently without damaging the equipment or area being protected, or where the use of alternative agents can cause a hazard to personnel in the area.

Substantiation: The annex material for this section discusses that halons are controlled agents under the Montreal Protocol and therefore their use should be limited. The annex also notes that halon extinguishers should not be discharged for training, which is disallowed by the US EPA. Halocarbon agents do not have these limitations and should not be restricted in this manner. The US EPA allows halocarbon agents to be used in any nonresidential application and the current language appears to reflect that NFPA would be providing additional restrictions beyond those imposed by the US EPA.

Committee Meeting Action: Accept in Principle

Change the following sections as indicated:

5.3.2.1* Fire extinguishers for the protection of Class A hazards shall be selected from types that are specifically listed and labeled for use on Class A fires. (For ~~halogenated halon~~ agent-type extinguishers, see 5.3.2.6.)

5.3.2.2* Fire extinguishers for the protection of Class B hazards shall be selected from types that are specifically listed and labeled for use on Class B fires. (For ~~halogenated halon agent~~-type extinguishers, see 5.3.2.6.)

5.3.2.3* Fire extinguishers for the protection of Class C hazards shall be selected from types that are specifically listed and labeled for use on Class C hazards. (For ~~halogenated halon agent~~-type fire extinguishers, see 5.3.2.6.)

5.3.2.6* Use of ~~halogenated~~ halon agent fire extinguishers shall be limited to applications where a clean agent is necessary to extinguish fire efficiently without damaging the equipment or area being protected, or where the use of alternative agents can cause a hazard to personnel in the area.

Committee Statement: Editorial changes were made for consistency.

Also make changes to references in Sections 5.3.2.1, 5.3.2.2 & 5.3.2.3.

10-22 Log #93 **Final Action: Reject**
(5.3.2.6.1)

Submitter: Bradford Colton, American Pacific Corporation

Recommendation: Revise text to read as follows:

5.3.2.6.1 Placement of portable fire extinguishers containing halogenated agents shall conform to minimum confined space volume requirement warnings contained on the fire extinguisher nameplates when extinguishers are used in spaces that have little or no ventilation and have limited or restricted means for exiting.

Substantiation: The label for halogenated extinguishers is required by UL 2129 to state "WARNING: The concentrated agent when applied to fire can produce toxic byproducts. Avoid inhalation of these materials by evacuating and ventilating the area. Do not use in confined spaces less than "X" cubic

feet per extinguisher.” This minimum volume is not applicable to the majority of rooms in which halogenated extinguishers are used. This minimum volume wording applies only to confined spaces which have little or no ventilation and are difficult to exit. This revision clarifies the intent of the minimum volume wording.

Committee Meeting Action: Reject

Committee Statement: It is not the intent of this committee to limit the use of these extinguishers to ventilated areas.

The warning label stands on its own and further clarification in this standard is not needed.

10-23 Log #18 **Final Action: Accept**
(5.3.2.7)

Submitter: Leo Macdonald, Independent Products LLC

Recommendation: Revise text as follows:

Wheeled fire extinguishers shall be considered for hazard protection in areas in which a fire risk assessment has shown that (1) High hazard areas are present, and (2) Limited available personnel are present, thereby requiring an extinguisher that has (a) High agent flow rates, (b) Increased agent stream range and (c) increased agent capacity. Where the fulfillment of the following requirements is necessary:

Substantiation: The wording is misleading, seeming to the reader that the cause and effect are reversed. The cause is the high hazard area with limited personnel. The effect is the selection of a wheeled extinguisher because of its greater functionality.

Committee Meeting Action: Accept

10-24 Log #CP38 **Final Action: Accept**
(5.5.1.1.2*)

Submitter: Technical Committee on Portable Fire Extinguishers,

Recommendation:

Revise to read as follows:

5.5.1.1.2* Large capacity dry chemical extinguishers of 10 lb (4.54 kg) or greater and a discharge rate of 1 lb/sec (0.45 kg/sec) or more shall be used to protect these hazards.

Substantiation: Change provides clarification in accordance with Manual of Style.

Committee Statement: CAUTION: Attempting to extinguish this type of fire is undesirable unless there is reasonable assurance that the source of fuel can be promptly shut off.

Committee Meeting Action: Accept

10-25 Log #7 **Final Action: Reject**
(5.5.5)

Submitter: Eddie Phillips, Southern Regional Fire Code Development Committee

Recommendation: Revise to read:

5.5.5* Class K Cooking Media Fires. Fire extinguishers provided for the protection of cooking appliances protected by a hood suppression system that use combustible cooking media (vegetable or animal oils and fats) shall be listed and labeled for Class K fires.

Add a new 5.5.5.5 to read: 5.5.5.5 Class K extinguishers shall not be used unless an electrical shunt is provided for electrical appliances.

Substantiation: The premise of use of a Class K extinguisher is contingent on the fire suppression system in activated first per 5.5.5.3. The proposed language clarifies that fact and further clarifies when Class K extinguishers should be placed and used. The proposed new section 5.5.5.5 clarifies that Class K do not have a Class C rating and should not be used on electrical appliances unless an electrical shunt has been provided. It also provides guidance for users of NFPA 96 which states 4.1.9* Cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or any form of roofed enclosure, shall comply with this standard. A.4.1.9 The authority having jurisdiction can exempt temporary facilities, such as a tent, upon evaluation for compliance to the applicable portions of this standard. Although it might not be practical to enforce all requirements of this standard in temporary facilities, the authority having jurisdiction should determine that all necessary provisions that affect the personal safety of the occupants are considered. In those instances where the ahj has permitted the fire suppression system to not be required portable extinguisher selection may change.

Committee Meeting Action: Reject

Committee Statement: The Committee’s intent is to provide a Class K extinguisher whether there is a hood or not.

10-26 Log #36 **Final Action: Accept in Principle**
(5.5.5.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Delete entire paragraph, renumber subsequent paragraphs accordingly and move the existing language of 5.5.5.1 to the Annex – at the

end of A.5.5.5.

Substantiation: Manufacturers have already complied with this requirement – serves only for informational purposes at this point and therefore should be placed in the Annex.

Committee Meeting Action: Accept in Principle

Add the following to the end of current section A.5.5.5.

Class K fire extinguishers equipped with extended wand-type discharge devices should not be used in a manner that results in subsurface injection of wet chemical extinguishing agents into hot cooking media. Subsurface injection causes a thermodynamic reaction comparable to an explosion. Class K fire extinguishers are no longer manufactured with “extended wand-type” discharge devices.

Committee Statement: Editorial changes meet submitter’s intent

10-27 Log #37 **Final Action: Accept in Principle**
(5.5.5.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Remove entire paragraph and renumber following paragraphs accordingly. Move existing language in 5.5.5.2 to the Annex at the end of A.5.5.5.

Substantiation: Manufacturers have already complied with 5.5.5.1 in the 2007 Edition, extinguishers manufactured prior to 1998 specifically for use on Class K fires comply with the Standard. Text is now more appropriate as informational and therefore should be placed in the Annex.

Committee Meeting Action: Accept in Principle

Revise as follows:

5.5.5.2 Wet-chemical fire extinguishers installed specifically for the protection of cooking appliances that use combustible cooking media (animal or vegetable oils and fats) prior to June 30, 1998, shall be permitted to remain in service.

Committee Statement: The Committee’s intent is that these extinguishers can remain in service.

10-28 Log #1 **Final Action: Reject**
(5.5.5.4)

Submitter: Jon Nisja, Northcentral Regional Fire Code Development Committee

Recommendation: Revise to read:

5.5.5.4 Existing dry chemical extinguishers without a Class K listing that were installed for the protection of Class K hazards shall be replaced with an extinguisher having a Class K listing when the dry chemical extinguishers become due for either a 6-year maintenance or hydrostatic test or when the fixed fire protection system is updated or replaced.

Substantiation: This addition will assure that if the fixed fire suppression system is replaced the associated dry chemical fire extinguisher will be replaced with a Class K extinguisher.

Committee Meeting Action: Reject

Committee Statement: See Committee Action on Proposal 10-29 (Log #CP30)

10-29 Log #CP30 **Final Action: Accept**
(5.5.5.4)

Submitter: Technical Committee on Portable Fire Extinguishers,

Recommendation: Delete this section.

Substantiation: Dry chemical extinguishers in commercial kitchens should have been replaced by the time this edition of the standard is published.

Committee Meeting Action: Accept

10-30 Log #38 **Final Action: Accept in Principle**
(5.5.6.1 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new 5.5.6.1:

5.5.6.1 Dry chemical fire extinguishers shall not be installed for the protection of delicate electronic equipment.

Substantiation: Adds needed precaution on the use of dry chemical agent around delicate electronic equipment.

Committee Meeting Action: Accept in Principle

Add new 5.5.6.1:

5.5.6.1 Dry chemical fire extinguishers shall not be installed for the protection of delicate electronic equipment.

Create a new section A.5.5.6.1 as follows:

Dry chemical residue will probably not be able to be completely and immediately removed, and, in addition, multipurpose dry chemical, when exposed to temperatures in excess of 250°F (121°C) or relative humidity in excess of 50 percent, can cause corrosion.

Committee Statement: Create a new annex section to coincide with the new section.

10-31 Log #24
(5.5.7.1)**Final Action: Reject****Submitter:** Leo Macdonald, Independent Products LLC**Recommendation:** Revise text as follows:

Only water-type or those specifically recommended by the manufacturer shall be installed for use in areas containing oxidizers such as pool chemicals.

Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use “inert gas agents” as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject**Committee Statement:** Submitter’s proposed language is not enforceable and no technical data has been submitted to justify this proposal.10-32 Log #96
(6.1.1.3)**Final Action: Reject****Submitter:** J. R. Nerat, Badger Fire Protection**Recommendation:** Add new text to read as follows:

6.11.3 The installation of used fire extinguishers within an occupancy shall be properly documented and acknowledged by the owner.

Substantiation: The sale and installation of used equipment is sometimes done without notification or knowledge of the owner. This requirement would require any substitution or sale of used equipment for fire protection to be with the owners knowledge.

Committee Meeting Action: Reject**Committee Statement:** Proposal is not sufficient to provide a minimum requirement for enforcement of documentation. Submitter is encouraged to come back to the committee with more information.10-33 Log #25
(6.1.3.8)**Final Action: Accept in Principle****Submitter:** Leo Macdonald, Independent Products LLC**Recommendation:** Revise text as follows:

6.1.3.8.3 In no case except wheeled fire extinguishers shall the clearance between the bottom of the fire extinguisher and the floor be less than 4 in (102 mm).

Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use “inert gas agents” as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55

(nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Accept in Principle

Revise wording as follows:

6.1.3.8.3 In no case shall the clearance between the bottom of the hand-portable fire extinguisher and the floor be less than 4 in (102 mm).

Committee Statement: Committee feels revised wording meets submitter’s intent.10-34 Log #14
(6.2.1.4.1)**Final Action: Reject****Submitter:** Mark S. Connolly, Fire Fighter Sales & Service Co.**Recommendation:** Add new text to read as follows:

6.2.1.4.1 Where hose stations are so provided, they shall conform to NFPA 14, *Standard for the Installation of Standpipe and Hose Systems and maintained per NFPA 1962, Standard for the Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose.*

Substantiation: This will help close the loop on the necessity of pressure testing and maintaining fire hose.**Committee Meeting Action: Reject****Committee Statement:** Maintenance of standpipes is not in the scope of this standard10-35 Log #19
(Table 6.3.1.1)**Final Action: Accept****Submitter:** Leo Macdonald, Independent Products LLC**Recommendation:** Revise text as follows:

(2) For fires involving water-soluble flammable liquids, see 5-5-4: 5.5.3.

Substantiation: Note 2 is incorrect, perhaps from a previous revision numbering change.**Committee Meeting Action: Accept****Committee Statement:** Editorial10-36 Log #4
(6.3.4.2)**Final Action: Reject****Submitter:** Larry A. Osvold, Northland Fire Protection**Recommendation:** Revise text to read as follows:

“...forming a hole of a size not to exceed more than 1/4 in. free play and will not permit the collar assembly to move over the neck of the container unless the valve is completely removed.

Substantiation: This will prevent some of the current and future recharge service personnel from sliding the next larger size collar over the valve making it appear the valve has been removed. The last client serviced had 10 percent oversized collars.

Committee Meeting Action: Reject

Correct reference should be 7.3.3.2.1.1.

Committee Statement: Committee feels this is an enforcement issue.10-37 Log #3
(6.6.2)**Final Action: Reject****Submitter:** Eddie Phillips, Southern Regional Fire Code Development Committee**Recommendation:** Revise to read:

6.6.2* Maximum travel distance shall not exceed 30 ft (9.15 m) from the hazard to the extinguishers. A Class K extinguisher and the required operational sequence signage shall be located within 5 feet of the manual activation device(s) for the exhaust hood fire suppression system(s).”

Add an Annex note to read:

A.6.6.2 The proper sequence of activation of the fire suppression system as being primary and Class K portable extinguisher use being secondary needs to be stressed to management and staff. This also needs to be stressed to facility designers and contractors so the location of portable fire extinguishers in relation to fire suppression system manual activation devices is realistic. Too many times portable extinguishers are shown to be across a kitchen from the suppression system manual activation device. Such a condition is confusing and can result in risks to kitchen personnel and or a delay in suppression system activation.

Substantiation: It is critical that the fire suppression system be activated first and that the Class K extinguisher be used as backup. The location of the Class K extinguisher needs to be in close proximity to the fire suppression manual activation device so no time is lost in activating the fire suppression system.

Committee Meeting Action: **Reject**

Committee Statement: Committee feels a five-foot requirement is too restrictive, and there may be a more suitable location to install the extinguisher and the sign.

10-38 Log #75 **Final Action: Reject**
(7.1.1 and A.7.1.1 (New))

Submitter: Peter A. Larrimer, Pittsburgh, PA

Recommendation: Add new text as follows:

7.1.1* Performance Based Inspection and Maintenance. As an alternate means of compliance, subject to the authority having jurisdiction, components and systems shall be permitted to be inspected, tested, and maintained under a performance based program.

A.7.1.1 This section provides the option to adopt a performance-based inspection and testing method as an alternate means of compliance for 7.2 and 7.3. The prescriptive test and requirements contained in this standard are essentially qualitative. Equivalent or superior levels of performance can be demonstrated through quantitative performance-based analyses. This section provides a basis for implementing and monitoring a performance-based program acceptable under this option (providing approval is obtained by the AHJ). The concept of a performance-based inspection and testing program is to establish the requirements and frequencies at which inspection and testing must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection and testing frequency with proven reliability of the system or component. The goal of a performance-based inspection program is also to adjust inspection and testing frequencies commensurate with historical documented equipment performance and desired reliability. Frequencies of inspection and testing under a performance based program may be extended or reduced from the prescriptive inspection and testing requirements contained in this standard when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the AHJ's expectations of performance. Additional program attributes that should be considered when adjusting inspection and testing. A fundamental requirement of a performance based program is the continual monitoring of fire system/component failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the AHJ. The process used to complete this review should be documented and repeatable. Coupled with this ongoing review is a requirement for a formalized method of increasing or decreasing the frequency of inspection and testing when systems exhibit either a higher than expected failure rate or an increase in reliability as a result of a decrease in failures. A formal process for reviewing the failure rates and increasing or decreasing the frequency of inspection and testing must be well documented. Concurrence from the AHJ on the process used to determine test frequencies should be obtained in advance of any alterations to the inspection and testing program. The frequency required for future inspection and tests may be reduced to the next inspection frequency and maintained there for a period equaling the initial data review or until the ongoing review indicates that the failure rate is no longer being exceeded. For example going from annual to a semiannual testing when the failure rate exceeds the AHJ's expectations or from annual to every eighteen months when the failure trend indicates an increase in reliability.

Substantiation: Performance based inspection and testing is proposed (only) if acceptable to the AHJ. The annex note provides much of the substantiation for this proposal. DOD is using performance based inspection and testing successfully. NFPA 25, 4.6.1.1.1 has a similar requirement and NFPA 72 has accepted a proposal to give consumers similar options for inspection and testing fire alarm devices as for inspection and testing water based equipment.

Committee Meeting Action: **Reject**

Committee Statement: Extinguisher nameplates and labels require specified frequency of inspections and other servicing and maintenance requirements.

Submitter did not provide the methodology for performance based inspection program. Section 1.2.2 allows the use of alternative arrangements acceptable to the Authority Having Jurisdiction.

10-39 Log #2 **Final Action: Reject**
(7.1.2)

Submitter: Jon Nisja, Northcentral Regional Fire Code Development Committee

Recommendation: Revise to read:

7.1.2.1 A ~~trained and~~ certified person who has undergone the instructions necessary to reliably perform maintenance and has the manufacturer's service manual shall service the fire extinguishers not more than 1 year apart, as outlined in Section 7.3.

7.1.2.2* Maintenance, servicing, and recharging shall be performed by a ~~trained and~~ certified persons having available the appropriate servicing manual(s), the proper types of tools, recharge materials, lubricants, and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher.

7.1.2.3* The certification of service personnel shall be required after August 17, 2008.

A.7.1.2.3 Certification may include FEMA certification, manufacturer certification, AHJ certification, or other approved training and education.

7.1.2.3.1 The AHJ shall determine the certification requirements.

Substantiation: Currently there is no guidance on what certification is or who is responsible for determining certification requirements. If personnel are required to be certified than there is no need for the word "training" as that is part of certification.

Committee Meeting Action: **Reject**

Committee Statement: See Committee Action on Proposal 10-41 (Log #39) and Committee Action on Proposal 10-40 (Log #41).

10-40 Log #41 **Final Action: Accept in Principle**
(7.1.2.1 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Delete current text and insert as follows:

7.1.2.1 Persons performing maintenance and recharging of extinguishers shall be certified by an organization that has a certification program that is acceptable to the authority having jurisdiction.

Substantiation: Provides clear understanding of the certification requirement when maintenance and recharging of extinguishers is being conducted.

Committee Meeting Action: **Accept in Principle**

Revise wording as follows:

7.1.2.1* Persons performing maintenance and recharging of extinguishers shall be certified by an organization that has a certification program that is acceptable to the Authority Having Jurisdiction.

Add new annex material as follows:

A.7.1.2.1 Equivalency. Industrial facilities that establish their own maintenance and recharge facilities, and provide training to personnel that perform these functions are considered to be in compliance with this requirement. Examples include power generation, petrochemical, telecommunications facilities. A letter from the facility management can be used as the certification document.

Committee Statement: The committee felt that annex material was necessary to help clarify that industrial facilities that establish their own maintenance and recharge facilities, and provide training to personnel that perform these functions are considered to be in compliance with this requirement.

10-41 Log #39 **Final Action: Accept in Principle**
(7.1.2.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.1.2.2* Persons performing maintenance and recharging of extinguishers shall be trained and shall have available the appropriate manufacturer's servicing manual(s), the proper types of tools, recharge materials, lubricants, and manufacturer's replacement parts or parts specifically listed for the use in the fire extinguisher.

Substantiation: Better explains what is being performed to the extinguisher by a TRAINED person(s). Adding manufacturer also assures the proper service manual will be referred to during the process.

Committee Meeting Action: **Accept in Principle**

Revise wording of submitted proposal as follows:

7.1.2.2* Persons performing maintenance and recharging of extinguishers shall be trained and shall have available the appropriate manufacturer's servicing manual(s), the ~~correct~~ tools, recharge materials, lubricants, and manufacturer's replacement parts or parts specifically listed for the use in the fire extinguisher.

Committee Statement: Wording was changed according to NFPA Manual of Style to remove unenforceable language.

10-42 Log #29 **Final Action: Accept**
(7.1.2.3)

Submitter: Mark T. Conroy, Brooks Equipment Company
Recommendation: Delete text to read as follows:
Delete 7.1.2.3.
Substantiation: The deadline has passed.
Committee Meeting Action: Accept

10-43 Log #69 **Final Action: Accept in Principle**
(7.1.2.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Delete the following text:
7.1.2.3 The certification of service personnel shall be required after August 16, 2008.
Substantiation: This compliance date has passed. It is no longer needed.
Committee Meeting Action: Accept in Principle
Committee Statement: See Committee Action on Proposal 10-42 (Log #29)

10-44 Log #40 **Final Action: Accept in Principle**
(7.1.2.4 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Add new text to read as follows:
7.1.2.4 Certification shall not be required for persons performing monthly manual inspections.
Substantiation: This clearly explains that inspections can be performed by owners or others.
Committee Meeting Action: Accept in Principle
Change text to read as follows:
7.1.2.4* Persons performing 30-day manual inspections shall not be required to be certified.
Add an annex note to Section 7.1.2.4*
A.7.1.2.4 This is not intended to prevent service technicians from performing the 30-day inspections.
Committee Statement: Committee actions meets submitter's intent.

10-45 Log #15 **Final Action: Reject**
(7.2.1.1 and 7.3.1.1.1)

Submitter: Mark S. Connolly, Fire Fighter Sales & Service Co.
Recommendation: Add and revise text to read as follows:
7.2.1.1 Fire extinguishers shall be manually inspected when initially placed in service.
7.3.1.1.1 Fire extinguishers shall be subjected to maintenance when initially placed in service, at intervals of not more than 1 year, at the time of hydrostatic test, or when specifically indicated by and inspection or electronic notification.
Substantiation: Only performing the inspection when the unit is placed in service may not necessarily catch problems such as the unit being due for 6-year teardown, having a clogged hose or other damage. Although the unit may have just been put in service does not mean it is "new".
Committee Meeting Action: Reject
Committee Statement: Submitted language would effectively requires all extinguishers placed into service to be done so by a certified person. This is not the intent of the committee.

10-46 Log #5 **Final Action: Reject**
(7.2.1.2)

Submitter: Robert B. Wallace, III, Mills-Peninsula Health Services
Recommendation: Revise text to read as follows:
Fire extinguishers shall be inspected either manually or by means of an electronic monitoring device/system on a monthly basis.
Substantiation: The 30 day minimum requirement can lead to record issues, as the months have different days. Eventually you would trail off to the beginning of the month, or even worse have an inspection twice in one month. Revising the text to "on a monthly basis" would eliminate this problem.
Committee Meeting Action: Reject
Committee Statement: The previous editions of the standard required monthly inspections. The recent edition requires an inspection at a minimum of 30 day intervals.

10-47 Log #74 **Final Action: Reject**
(7.2.1.2)

Submitter: Peter A. Larrimer, Pittsburgh, PA
Recommendation: Revise 7.2.1.1 as follows:
(Please see the companion proposal on 3.3.18 that defined what "monthly" means.)
7.2.1.2 Fire extinguishers shall be inspected monthly either manually or by means of an electronic monitoring device/system, at a minimum of 30-day intervals.

Substantiation: The previous wording required users to place on the inspection tag a month and day to ensure that the minimum 30 day interval was not exceeded and also required two inspections in one month when the inspection occurred on the first day of the month and there was thirty days in that month. I don't believe that the change made last cycle was intended to change the monthly frequency. It appeared to be made to address a manual of style issue by removing the word "approximately". The change along with the definition of monthly in a companion proposal for 3.3.18 will meet the manual of style and make the requirement less burdensome to all involved without changing the intent of the standard.

Committee Meeting Action: Reject
Committee Statement: See Committee Action on Proposal 10-46 (Log #5)

10-48 Log #85 **Final Action: Reject**
(7.2.1.2)

Submitter: David P. Klein, U.S. Dept. of Veterans Affairs
Recommendation: Revise text to read as follows:
7.2.1.2 Fire extinguishers shall be inspected not less than once in each calendar month, either manually or by means of an electronic monitoring device/system at a minimum of 30 day intervals.
Substantiation: The inspections addressed by this section are frequently referred to in the field as "monthly inspections". Prior to the 2007 edition, inspections were required "at approximately 30-day intervals". In the 2007 edition, the phrase "approximately 30-day intervals" was replaced by "a minimum of 30-day intervals". Other sections in the 2007 edition refer to "monthly inspections". For example, A.7.2.1.1 states "The required monthly inspection is a minimum". 7.2.4.3 states "At least monthly where manual inspections are conducted, the date the manual inspection was performed and the initials of the person performing the inspection shall be recorded". 7.2.4.5 states "Records shall be kept to demonstrate at least the last 12 monthly inspections have been performed".
The change in the requirement from "approximately 30-day intervals" to "a minimum of 30-day intervals" has created confusion regarding months that have 31 days. A literal interpretation of the new requirement would suggest that if the inspection was performed on the first day of a month that has 31 days, another inspection would be required in the same month. The suggested revision is to clarify the required inspection frequency.
Committee Meeting Action: Reject
Committee Statement: See Committee Action on Proposal 10-46 (Log #5)

10-49 Log #8 **Final Action: Reject**
(7.2.2)

Submitter: James Everitt, Western Regional Fire Code Development Committee
Recommendation: Revise text as follows:
7.2.2* Procedures. Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:
(1) Location in designated place
(2) No obstruction to access or visibility
(3) Pressure gauge reading or indicator in the operable range or position
(4) Fullness determined by weighing or hefting for self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
(5) Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
(6) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators
(7) Ensure pull pin or locking device is operational, not damaged, and moves freely.
Substantiation: The inspection of pull pins and locking mechanisms is important for the annual maintenance it is important to check monthly to ensure that they are operable.
Committee Meeting Action: Reject
Committee Statement: Submitted language would add an additional requirement that the pull pin is operational and not damaged; however, electronically monitoring is not able to perform this operation. This could lead to a full inspection.
If this inspection damaged the tamper seal, would a listed tamper seal be available to replace it.

10-50 Log #26 **Final Action: Reject**
(7.3.1.1.2)

Submitter: Leo Macdonald, Independent Products LLC
Recommendation: Add new text as follows:
Inert gas agents 6 yrs.
Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject

Committee Statement: Currently, these extinguishers are not available and they are not listed.

Section 1.2.2 does not prohibit the use of these extinguishers when acceptable to the Authority Having Jurisdiction.

Action allows the submitter to work with listing laboratories to develop a performance standard. Submitter is further encouraged to submit technical justification in accordance with the required test standards.

10-51 Log #42 **Final Action: Accept**
(7.3.1.1.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Delete the following text:

~~The agent in solid charge type AFFF extinguishers is to be replaced every 5 years during the periodic hydrostatic test and the teardown is done at the same time.~~

Substantiation: Editorial. This type of extinguisher has been added to the list of Obsolete Extinguishers in 4.4 and is to be removed from service.

Committee Meeting Action: Accept

10-52 Log #66 **Final Action: Accept**
(Table 7.3.1.1.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

*Dry chemical and dry powder, in cartridge or cylinder- operated extinguishers, is examined annually.

Substantiation: Added words further explains the requirement includes both dry powder and dry chemical type units that are cylinder or cartridge operated.

Committee Meeting Action: Accept

10-53 Log #31 **Final Action: Reject**
(7.3.1.1.3 (New))

Submitter: Fred B. Goodnight, Amerex Corporation

Recommendation: Add new paragraph 7.3.1.1.3 to read as follows:

7.3.1.1.3 Maintenance is a thorough examination of an extinguisher and shall be conducted by trained and certified person. The following is a list of minimum required maintenance steps for stored pressure type extinguishers in addition to following the Manufacturers Service Manual.

a. Physically remove extinguisher from its bracket or cabinet to perform a thorough visual inspection of the external parts of a fire extinguisher. Perform all applicable items of a monthly inspection.

b. Confirm the operating instructions are legible and facing outward.

c. Confirm the extinguisher is not "obsolete" or due for replacement.

d. Weigh the extinguisher and confirm it is properly filled.

e. Break the tamper indicator and confirm the handle and lever will function as required. Install a new listed tampered seal.

f. Remove hose or nozzle and check hose and nozzle for any obstructions.

Check hose to make sure it is not cracked or cut. Check horn or nozzle for cracks or damage. Check threads of hose or nozzle and valve body.

g. Check outlet of valve for evidence of discharge or leakage.

h. Check date of manufacture to determine if extinguisher shell and any hoses

are due for hydrostatic test or other mandated maintenance.

i. Any dents, cuts, gouges, corrosion to cylinder or valve is to be noted and evaluated for further repair or replacement. Any damaged components of the valve assembly are to be replaced.

j. Discharge and perform internal maintenance on extinguishers requiring annual internal examination (see Table 7.3.1.1.2).

k. Perform continuity test on all CO2 hoses.

l. Check pressure regulator on wheeled extinguisher for static set pressure and flow rate.

m. Examine shutoff valves on hoses for operation.

n. Any extinguishers equipped with electronic monitoring devices shall also require maintenance of the components of the electronic monitoring system.

See 7.3.2.5.

o. Examine hanger or bracket for corrosion or damage. Repair or replace as needed.

Substantiation: Provide a listing of maintenance operations and to properly differentiate between Inspection and Maintenance.

Committee Meeting Action: Reject

Committee Statement: The committee debated the concept to address this section and will form a task group to address this further. The task group is assigned the task to develop comments on Proposal 10-53 (Log #31).

10-54 Log #43 **Final Action: Reject**
(7.3.1.1.3 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new text to read as follows:

7.3.1.1.3 Persons performing maintenance on fire extinguishers shall comply with the requirements of 7.1.2.

Substantiation: Adds language regarding the certification of personnel in the section of the standard that deals with Maintenance, making the standard more user friendly.

Committee Meeting Action: Reject

Committee Statement: The Committee feels the requirement is redundant.

10-55 Log #45 **Final Action: Accept**
(7.3.1.2.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.3.1.2.1* Six Year Internal Examination. Every 6 years, stored-pressure fire extinguishers that require a 12-year hydrostatic test shall be emptied and subjected to the applicable internal examination procedures as detailed in the manufacturer's service manual and this standard.

Substantiation: Changing the text would give consistency in the language of the standard. Table 7.3.1.1.2 refers to an Internal Examination that is required of all extinguishers, the examination only varies according to the type and construction of the extinguisher, therefore, there really isn't a 6-year maintenance, but there is an internal examination requirement to be performed on stored pressure extinguishers having a 12 year hydrostatic test requirement at an interval not to exceed 6 years. The asterisk for this paragraph should be removed as the paragraph A.7.3.1.2.1 refers to halon recovery information and is not appropriate for this paragraph. Note: This change would require other changes in verbiage throughout the Standard wherever the term 6-year maintenance is used.

Committee Meeting Action: Accept

10-56 Log #44 **Final Action: Accept in Principle**
(7.3.1.2.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Relocate paragraph 7.3.1.2.3 and renumber as 7.3.1.2.1.1 and then renumber what remains as appropriate.

Substantiation: The existing paragraph 7.3.1.2.3 does not apply to only loaded stream charge extinguishers. **It applies to all stored pressure extinguishers.**

Committee Meeting Action: Accept in Principle

Renumber proposal to section to 7.3.1.2.2, renumber sections accordingly.

Committee Statement: The Committee feels this is a more appropriate section for this proposal.

10-57 Log #100 **Final Action: Accept in Principle**
(7.3.1.2.3)

Submitter: Craig Voelkert, Amerex Corp.

Recommendation: Add new text as follows:

7.3.1.2.3 The loaded stream charge shall be permitted to be recovered and re-used, provided it is subjected to agent analysis in accordance with the manufacturer's instructions.

Substantiation: This text existed in the 2002 Edition of NFPA 10 and was left out when the Standard was re-written. This will place the text back into the Standard under the existing manual of style.

Committee Meeting Action: Accept in Principle

Add new text as follows:

~~7.3.1.2.3~~ 7.3.1.2.2.1 The loaded stream charge shall be permitted to be recovered and re-used, provided it is subjected to agent analysis in accordance with the extinguisher manufacturer's instructions.

Committee Statement: The committee added the word extinguisher to meet the submitter's intent. Change numbering in accordance with Proposal 10-56 (Log #44).

10-58 Log #20 **Final Action: Reject**
(7.3.1.3.1)

Submitter: Leo Macdonald, Independent Products LLC

Recommendation: Revise text as follows:

7.3.1.3.1 Carbon dioxide hose assemblies that fail to have continuous conductivity along their entire length, as performed by an open circuit test, the conductivity test shall be replaced.

Substantiation: The omission of the failure mode from the standard and the inclusion of the failure mode in the Annex A means that the type of failure is optional, either failing by conducting or failing by not conducting. To make the failure by not conducting mandatory, in keeping with the use of "shall" in section 7.3.1.3, the description should be revised as indicated.

Committee Meeting Action: Reject

Committee Statement: Submitter did not provide any technical justification to support rewording the section. Rewording this section might lead to confusion in the industry.

10-59 Log #81 **Final Action: Reject**
(7.3.1.3.1)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Add a new 7.3.1.3.1 and renumber subsequent sections.

7.3.1.3.1 The conductivity test shall be made between the outlet coupling of the hose and the extinguisher valve assembly.

Substantiation: Some service companies have applied a thread sealant onto the hose coupling that insulates the hose from the extinguisher valve. Checking the continuity of the hose does not verify that there is continuity between the extinguisher and the nozzle orifice.

Committee Meeting Action: Reject

Committee Statement: The Committee feels this is a component test, not an extinguisher test. Following the manufacturer's service manuals will resolve this issue.

10-60 Log #CP35 **Final Action: Accept**
(7.3.1.3.2)

Submitter: Technical Committee on Portable Fire Extinguishers,

Recommendation: Revise as follows:

7.3.1.3.2 Carbon dioxide hose assemblies that pass a conductivity test shall have the test information recorded on a durable weatherproof label that has a minimum size of ½ in. × 3 in. (13 mm × 76 mm).

Substantiation: Action reflects the committees previous actions to remove the word metallic.

Committee Meeting Action: Accept

10-61 Log #46 **Final Action: Accept in Principle**
(7.3.1.5 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new paragraph – 7.3.1.5* Wheeled Unit Hoses.

Discharge hoses on wheeled extinguishers shall be coiled to prevent kinks and allow rapid deployment in accordance with manufacturers instructions.

Substantiation: Paragraph A.7.2.2 provides valuable information and addresses a common mistake in the maintenance of wheeled extinguishers, but the numbering sequence places it under Inspection where the coiling of the hose is more of a maintenance function.

Committee Meeting Action: Accept in Principle

Reword new paragraph.

7.3.1.5* Wheeled Unit Hoses. Discharge hoses on wheeled extinguishers shall be coiled in a manner to prevent kinks and allow rapid deployment in accordance with manufacturers instructions. Change diagrams in annex, A.7.2.2 to A.7.3.1.5.

Committee Statement: Committee feels the rewrite meets submitter's intent.

10-62 Log #82 **Final Action: Accept**
(7.3.2(6))

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Add new text to read as follows:

(6) Hoses provided on wheeled-type fire extinguishers shall be completely uncoiled and examined for damage.

Substantiation: The hoses used on wheeled-type extinguishers needs to be periodically examined for damage. Since monthly inspection no longer require examination for physical damage and clogged nozzles in is imperative that these procedures be performed during the annual maintenance.

Committee Meeting Action: Accept

10-63 Log #49 **Final Action: Reject**
(7.3.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.3.3* Maintenance Record Keeping. Each fire extinguisher shall have a tag or label securely attached that indicates the month and year the maintenance was performed, identifies the person performing the work, and identifies the name of the agency performing the work, and lists the serial number of the extinguisher onto which the tag or label is being affixed.

Substantiation: Some end users and private citizens have removed tags from extinguishers that had recently gone through annual maintenance procedures and placed them on their extinguisher in an effort to comply with an inspection from a local authority. Requiring the serial number of the extinguisher that has gone through annual maintenance procedures to be recorded on the maintenance tag ties the maintenance to the specific extinguisher. This will protect the individual and the agency performing the maintenance should any legal or liability issue arise. While recording the serial number on the annual maintenance/recharge tag will not prevent someone from removing a tag and placing it on another extinguisher, it will clarify numerous liability and legal issues should any incident or claim occur.

Committee Meeting Action: Reject

Committee Statement: The committee feels this is a problem, but not a prevalent problem in the industry.

10-64 Log #CP36 **Final Action: Accept**
(7.3.3.1*)

Submitter: Technical Committee on Portable Fire Extinguishers,

Recommendation: Revise text as follows:

7.3.3.1* Six-Year Service Label. Fire extinguishers that pass the applicable 6-year requirement of 7.3.1.2.1 shall have the maintenance information recorded on a durable weatherproof label that is a minimum size of 2 in. × 3½ in. (51 mm × 89 mm).

Substantiation: See statement for Proposal 10-60 (Log #CP35)

Committee Meeting Action: Accept

10-65 Log #47 **Final Action: Reject**
(7.3.3.1, 7.3.3.1.1, 7.3.3.1.2, and 7.3.3.1.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new text to read as follows:

7.3.3.1* Six-Year Internal Examination Label. Fire extinguishers that pass the applicable 6-year requirement of 7.3.1.2.1 shall have the maintenance information recorded on a label or the verification of service collar.

7.3.3.1.1 Where a label is used that is a minimum size of 2 in. × 3½ in. (51 mm × 89 mm), it shall be made of durable weatherproof material with a pressure sensitive adhesive and shall be of the self-destructive type when removal from a fire extinguisher is attempted.

7.3.3.1.2 Where a label is used, the new label shall be affixed to the shell by a heatless process, and any old internal examination labels shall be removed.

7.3.3.1.3 The following information shall be recorded on the label or verification of service collar:

(1) Month and year the internal examination was performed, indicated by a perforation such as is done by a hand punch

(2) Name or initials of the person performing the maintenance and name of the agency performing the maintenance.

Substantiation: This allows use of either a service collar or a label. Use of both is redundant and not necessary.

Committee Meeting Action: Reject

Committee Statement: The intent for the service collar and the label have two different requirements.

10-66 Log #16 **Final Action: Accept in Part**
(7.3.3.2.1.3)

Submitter: Mark S. Connolly, Fire Fighter Sales & Service Co.

Recommendation: Revise text to read as follows:

7.3.3.2.1.3 The collar shall include the following information:

(1) Month and year the service was performed, indicated by a perforation such as is done by a hand punch

(2) Name or initials of the person and agency performing the maintenance or recharge.

Substantiation: Requiring the name or initials of the person and agency performing the recharge or maintenance will help the owner of the equipment when it comes to accountability for those services.

Committee Meeting Action: Accept in Part

Reword the section as follows:

Revise text to read as follows:

7.3.3.2.1.3 The collar shall include the following information:

(1) Month and year the service was performed, indicated by a perforation such as is done by a hand punch

(2) Name or initials of the person and of the agency performing the maintenance or recharge.

Committee Statement: Clarifies the submitter's original intent

10-67 Log #48 **Final Action: Accept in Principle in Part**
(7.3.3.2.1.4 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new text to read as follows:

7.3.3.2.1.4 The collar shall include the name or initials of the person performing the maintenance and the name of the agency performing the maintenance.

Substantiation: Currently there is no requirement for the name of the company performing the service, nor is their identification of the individual performing the service, though the example in the Annex (Figure A.7.3.3.2) shows a company name. It cannot be assumed that the last company or individual who performed annual maintenance was the same company or individual to attach the verification of service collar. This information can be critical in incident investigation and is helpful to enforcement authorities.

Committee Meeting Action: Accept in Principle in Part

Committee Statement: See Committee Action on Proposal 10-66 (Log #16)

10-68 Log #50 **Final Action: Reject**
(7.4.1.1.1 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new text to read as follows:

7.4.1.1.1 Persons recharging fire extinguishers shall comply with the requirements of section 7.1.2.

Substantiation: This new section clearly defines this requirement as general and applies to persons performing recharge as well as maintenance.

Committee Meeting Action: Reject

Committee Statement: The Committee felt this proposal was redundant and repetitive.

10-69 Log #97 **Final Action: Reject**
(7.4.1.2.1)

Submitter: J. R. Nerat, Badger Fire Protection

Recommendation: Add new text to read as follows:

7.4.1.2.1 During recharge of dry chemical and dry powder fire extinguishers the make and type of extinguishing agent utilized for recharge shall be identified and recorded on the service record.

Substantiation: Service personnel are responsible for using the correct extinguishing agent to maintain product listings in the field and ensure equipment performance is not compromised. This documentation will help ensure compliance and allow AHJ's a means to identify service organizations that mix or do not utilize the proper extinguishing agents.

Committee Meeting Action: Reject

Committee Statement: The Committee felt this is not a practical or enforceable requirement.

10-70 Log #98 **Final Action: Reject**
(7.4.1.3.1)

Submitter: J. R. Nerat, Badger Fire Protection

Recommendation: Add new text to read as follows:

7.4.1.3.1 The accuracy of weight scales for fire extinguisher maintenance and recharge shall be checked and verified daily.

Substantiation: NFPA 10 and service manuals require the use of accurate scales to perform service and recharge functions. (Ref. 7.2.2(4), 7.4.1.3, 7.4.1.3.10(1))

Committee Meeting Action: Reject

Committee Statement: The committee feels checked and verified need to be better defined. Daily is excessive.

10-71 Log #99 **Final Action: Accept in Principle**
(7.4.1.3.1.2)

Submitter: J. R. Nerat, Badger Fire Protection

Recommendation: Add new text to read as follows:

7.4.1.3.1.2 Weight scales used for the maintenance and recharge or fire extinguishers shall have reading increments and accuracy necessary to verify the charge weights required.

Substantiation: NFPA 10 and extinguisher service manuals require the use of accurate scales for properly performing service and recharge functions. (Ref. 7.2.2(4), 7.4.1.3, 7.4.1.3.1, 7.4.1.3.10(1)).

Committee Meeting Action: Accept in Principle

Add new text to read as follows:

7.4.1.3.1.2 Weight scales used for the maintenance and recharge or fire extinguishers shall have reading increments and accuracy necessary to verify the charge weights required in the service manuals and nameplates.

Committee Statement: Change reflects submitter's original intent.

10-72 Log #51 **Final Action: Reject**
(7.4.1.3.6, A.7.1.3.6, and A.7.2.2 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Add new text to read as follows:

7.4.1.3.6* Extinguishers shall be reassembled so that the gauge lines up with the operating instructions. Where this cannot be accomplished, the extinguisher shall be condemned (see section 8.8).

A.7.1.3.6 This requirement does not permit the use of replacement valves unless the gauge will line up with the operating instructions. This requirement is retroactive and any extinguishers in the field where the gauge does not line up with the operating instructions should be removed from service.

A.7.2.2 Where an extinguisher gauge and operating instructions are not in alignment, maintenance should be performed on the extinguisher and the extinguisher needs to comply with 7.4.1.3.6.

Substantiation: Addresses issue when recharging where gauge and instruction label may not be aligned properly. Failure to align properly presents a safety concern. This assures the gauge will face outward as well. This correct a potential recharging and maintenance issue. Extinguishers in field that do not comply need to be removed.

Committee Meeting Action: Reject

Committee Statement: The standard already requires the label to face outward. Adding this language would be repetitive.

10-73 Log #17 **Final Action: Reject**
(7.4.2.3)

Submitter: Mark S. Connolly, Fire Fighter Sales & Service Co.

Recommendation: Add new text as follows:

7.4.2.3.4 Fire extinguishers that have been recharged according to 7.4.3.2.1 shall have the maintenance information recorded on a suitable metallic label or equally durable material that is a minimum size of 2 in. X 3 1/2 in. (51 mm X 89 mm).

7.4.2.3.5 The new label shall be affixed to the shell by a heatless process, and any old maintenance labels shall be removed.

7.4.2.3.6 These labels shall be of the self-destructive type when removal from a fire extinguisher is attempted.

7.4.2.3.7 The label shall include the following information:

(1) Month and year the maintenance was performed, indicated by a perforation such as done by a hand punch

(2) Name or initial of the person performing the maintenance and name of the agency performing the maintenance

Substantiation: The addition of a "3-year" label will help AHJs, service technicians, and end-users identify when the last breakdown was performed.

Committee Meeting Action: Reject

Committee Statement: Committee feels this requirement is unnecessary because the information is recorded on the service tag per 7.4.5.

10-74 Log #27 **Final Action: Reject**
(7.4.3)

Submitter: Leo Macdonald, Independent Products LLC

Recommendation: Add new text as follows:

7.4.3.12 Inert gas agent extinguishers.

7.4.3.12.1 Recharging of inert gas agent extinguishers shall only be performed in accordance with the manufacturer's instructions by an agency or company routinely engaged in the practice of refilling inert gas cylinders and/or containers and having in place a safety procedure for the refilling operation.

7.4.3.12.2 Inert gas agent extinguishers utilizing gas cylinders shall be recharged by weight.

7.4.3.12.3 Inert gas agent extinguishers utilizing liquid cylinders shall be recharged by volume or a liquid level indicating gage.

7.4.3.12.4 Inert gas agent extinguishers may be topped off, by the addition of agent into a cylinder and/or container that is already partly full, provided the cylinder has current inspection, maintenance, and hydrotest tags/markings.

Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend).

These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject

Committee Statement: Currently, these extinguishers are not available and they are not listed.

Section 1.2.2 does not prohibit the use of these extinguishers when acceptable to the Authority Having Jurisdiction.

Action allows the submitter to work with listing laboratories to develop a performance standard. Submitter is further encouraged to submit technical justification.

10-75 Log #101 **Final Action: Reject**
(7.4.3.2.1 (New))

Submitter: Craig Voelkert, Amerex Corp.

Recommendation: Add new text as follows:

Fire extinguishers found to have alkaline based chemicals mixed with multipurpose dry chemical shall be removed from service and discarded

Substantiation: Fire extinguishers with a mixture of multipurpose and alkaline based dry chemicals would violate current paragraph 7.4.1.4.1. Per A.7.4.3.2, pressure in the cylinder may have increased to the point of cylinder damage. It is not practical, nor advisable to attempt to clean all of the chemical out of the cylinder and replace it with proper chemical once the extinguisher is suspect. The extinguisher should be removed from service to insure public safety and to assure proper extinguisher performance.

Committee Meeting Action: Reject

Committee Statement: The justification doesn't necessarily warrant the discarding of the cylinder.

10-76 Log #55 **Final Action: Accept**
(7.4.3.11)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.3.11 Wet Chemical and Water Mist Agent Re-Use.

Substantiation: In an effort to control the agent being used in these extinguishers, the water mist extinguisher should be included in this heading.

Committee Meeting Action: Accept

10-77 Log #52 **Final Action: Accept**
(7.4.3.11.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.3.11.1 Wet chemical and water mist agents shall not be reused.

Substantiation: In an effort to control the effectiveness of the agents being used in these extinguishers, the water mist extinguisher as well as wet chemical extinguisher agents should not be reused. Water mist agents meet specific levels of conductivity as produced by the manufacturer and should not be contaminated.

Committee Meeting Action: Accept

10-78 Log #53 **Final Action: Accept**
(7.4.3.11.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.3.11.2 If a wet chemical or water mist extinguisher is partially discharged, all remaining wet chemical or water mist agent shall be discarded.

Substantiation: Security and purity of the water mist agent is just as important as the wet chemical agent.

Committee Meeting Action: Accept

10-79 Log #54 **Final Action: Accept**
(7.4.3.11.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.3.11.3 Wet chemical or water mist agent shall be discarded and replaced at the hydrostatic test interval.

Substantiation: Because of conductivity specifications on some water mist agents, the agent should not be reused, but replaced with new agent from the manufacturer.

Committee Meeting Action: Accept

10-80 Log #91 **Final Action: Accept in Part**
(7.4.4.3)

Submitter: Bradford Colton, American Pacific Corporation

Recommendation: Revise text to read as follows:

7.4.4.3 Pressurizing Gas. Only standard industrial-grade nitrogen with a dew point of -60°F (-51°C) or lower (CGA nitrogen specification G10.1, grades D through P) shall be used to pressurize stored-pressure dry chemical and halogenated-type fire extinguishers which use nitrogen as a propellant. (See Annex J.)

Substantiation: Section 7.4.4.4 discusses other halogenated agents which use argon instead of nitrogen, so this revised wording provides additional clarification.

Committee Meeting Action: Accept in Part

Revise text to read as follows:

7.4.4.3 Pressurizing Gas. Only standard industrial-grade nitrogen with a dew point of -60°F (-51°C) or lower (CGA nitrogen specification G10.1, grades D through P) shall be used to pressurize stored-pressure dry chemical and halogenated-type fire extinguishers which use nitrogen as a propellant. (See Annex J.)

Committee Statement: Committee felt that reference to Annex J was not necessary.

10-81 Log #56 **Final Action: Accept**
(7.4.4.3.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.4.3.3 Compressed air shall be permitted to be used from special compressor systems capable of delivering air with a dew point of -60 deg. F (-51 deg. C) or lower. See annex J.

Additionally delete the reference to annex J in 7.4.4.3.

Substantiation: This 7.4.4.3.3 is the correct paragraph to refer to annex J.

Section 7.4.4.3 is the incorrect paragraph to reference annex J.

Committee Meeting Action: Accept

10-82 Log #57 **Final Action: Accept**
(7.4.4.3.5)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

7.4.4.3.5 Class D, wet chemical, water mist and halocarbon fire extinguishers shall be repressurized only with the type of expellant gas referred to on the fire extinguisher label.

Substantiation: The use of shop air or even "dry air" that meets the specifications of 7.4.4.3.3 may create problems in most extinguishers using agents other than dry chemical. When used with wet chemical extinguishers, the presence of oxygen increases the possibility of corrosion in the internal vapor space of the extinguisher, whereas the use of nitrogen (as required by the extinguisher nameplate and recharge manual) serves as added protection against this possibility. In water mist extinguishers, the presence of oxygen and the use of any type of air could affect the agent's compliance with 4.1.4.2 by contaminating the water supplied by the manufacturer for initial fill and subsequent recharge.

Committee Meeting Action: Accept

10-83 Log #CP33 **Final Action: Accept**
(7.4.4.3.6)

Submitter: Technical Committee on Portable Fire Extinguishers,

Recommendation: New section to read as follows:

Compressed air without moisture removal devices shall be permitted for pressurizing water extinguishers.

Substantiation: This clarifies the Technical Committee's intent that there is no need to remove moisture when pressurizing water extinguishers.

Committee Meeting Action: Accept

10-84 Log #70 **Final Action: Accept**
(8.1.2.1.1 (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: New 8.1.2.1.1 Personnel performing hydrostatic testing shall be certified by and organization with a certification program acceptable to the authority having jurisdiction.
Substantiation: New text clearly identifies the person(s) able to perform hydrostatic testing.
Committee Meeting Action: Accept

10-85 Log #CP34 **Final Action: Reject**
(8.1.2.1.1.1)

Submitter: Technical Committee on Portable Fire Extinguishers,
Recommendation: Add new section as follows:
8.1.2.1.1.1 DOT or TC certification as a hydrostatic testing facility shall be permitted to fulfill the requirements of 8.1.2.1.1.
Substantiation: DOT and TC regulates work performed by DOT or TC registration
Committee Meeting Action: Reject

10-86 Log #12 **Final Action: Reject**
(8.2.1.5)

Submitter: Ladis Lav Mihaly, FireBird Enterprise Ltd.
Recommendation: Revise text to read as follows:
Using tested or calibrated scales for unspecified \pm tolerances makes no sense. At recharges we need exact \pm tolerances!
Substantiation: There are no \pm tolerances at recharges and we need to use calibrated scale. What is acceptable \pm 1 ton or \pm 1 gram? After fixing the tolerance we can use calibrated scales.
Committee Meeting Action: Reject
Committee Statement: Section 8.2.1.1 clearly provides tolerance requirements. Submitter's substantiation is incorrect.

10-87 Log #58 **Final Action: Reject**
(8.2.2.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Revise text to read as follows:
8.2.2.2 The temperature used for drying shall not exceed 212 degrees F (100 degrees C).
Substantiation: I am unaware of the supporting data that justifies the current temperature. 212 deg F represents the temperature of water converting to steam and there currently are drying systems available that run higher than 150 deg. F resulting in reduced cycle times and more efficient drying.
Committee Meeting Action: Reject
Committee Statement: Exceeding 150 degrees may have a detrimental affect on other components of the extinguisher.

10-88 Log #28 **Final Action: Reject**
(Table 8.3.1)

Submitter: Leo Macdonald, Independent Products LLC
Recommendation: Add new text as follows:
Inert gas agents 12 yrs.
Substantiation: Pursuant to Section 1.2.2 of NFPA 10, 2007 edition, a new type of portable fire extinguisher will be available in the summer of 2008 that provides a level of protection equal to or better than various other portable fire extinguishers currently described in NFPA 10. These new extinguishers use "inert gas agents" as described in NFPA 2001, 2008 edition, and are manufactured as a portable device, rather than as a permanently fixed and installed system.

Inert gas agents offer many benefits and very few drawbacks. They are most similar in action to some of the halogenated agents or carbon dioxide in that their main action is to exclude oxygen from the fire, although some cooling action is effected as well. They use the clean agents as listed in NFPA 2001, 2008 ed, in table 1.4.1.2 such as IG-01 (argon), or IG-100 (nitrogen), or IG-55 (nitrogen/argon blend), or IG-541 (nitrogen/argon/carbon dioxide blend). These fire extinguishers are truly clean in their operation. They leave no residue (such as water, chemicals, dry chemicals, foams, etc.) to contaminate sensitive equipment or the environment. These agents do not decompose during a fire to form highly toxic halide acid gases (such as HF or HCl or HBr or HI gasses: common thermal decomposition products for halon/halocarbon agents). They do not cause nor have they been attributed to any global pollution or environmental changes (such as halon or carbon dioxide). They do not conduct electricity and so are automatically categorized as type C compatible agents. They do not cause any corrosion to their containers, even when minor amounts of water may be present. They do not cake and lump (such as dry chemicals and powders, which then fail to dispense when needed).

These inert gas agents have been tested by a variety of agencies and companies in fixed systems in accordance with NFPA 2001. Several systems are currently listed and labeled, in production, and installed at various

commercial locations around the country. A portable fire extinguisher is currently under development by Independent Products LLC (Ref 1). We have designed large wheeled extinguishers appropriate for protection of high hazard areas. These extinguishers dispense IG-100 (nitrogen) or IG-01 (argon) at low pressure (extinguisher design pressure of 300 psi operation) through a hose having a shutoff valve at the tank and at the nozzle end of the hose. Further information regarding details of design, construction and operation are available upon request. This new portable inert gas fire extinguisher is currently undergoing testing for size rating in accordance with UL 711 for class A and class B fires. Research has been performed and has shown the usefulness of inert gas extinguishers for class D fires. (Ref 2)

Committee Meeting Action: Reject
Committee Statement: Currently, these extinguishers are not available and they are not listed.
Section 1.2.2 does not prohibit the use of these extinguishers when acceptable to the Authority Having Jurisdiction.
Action allows the submitter to work with listing laboratories to develop a performance standard. Submitter is further encouraged to submit technical justification.

10-89 Log #95 **Final Action: Reject**
(Table 8.3.1)

Submitter: J. R. Nerat, Badger Fire Protection
Recommendation: Add new text to read as follows:
Table 8.31 Hydrostatic test interval for extinguishers
All stainless steel cylinders and shells — 5 years
Substantiation: Current table does not fully address all possible combinations of cylinder materials and extinguishing agents.
Committee Meeting Action: Reject
Committee Statement: No technical justification was provided to support the proposal.

10-90 Log #59 **Final Action: Accept in Principle**
(8.3.2.2.1 and 8.3.2.2.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Delete section 8.3.2.2.2 and revise 8.3.2.2.1 to read as follows:
8.3.2.2.1 DOT 3E cartridges or TC 3EM cartridges not exceeding...".
Substantiation: Exemption from hydrostatic test is limited to DOT 3E and TC 3EM cylinders. All 3 E cylinders must be less than 2 inches in diameter and less than 2 feet in length, thus they are covered by section 8.3.2.2.1.
Committee Meeting Action: Accept in Principle
Reword as follows:
8.3.2.2.1 DOT 3E cartridges or TC 3EM cartridges shall be exempt from periodic hydrostatic retest.
Committee Statement: All DOT 3E cartridges have to comply with size limitations given in Section 8.3.2.2.1 anyway, so the Committee felt keeping the sizes was redundant.

10-91 Log #60 **Final Action: Accept**
(8.7.2.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Revise text to read as follows:
8.7.2.1 Fire extinguisher cylinders of the low-pressure non-DOT type..... recorded on a metallic label.
Substantiation: ● The marking in 8.7.2.1 and 8.7.2.2. applies only to non-DOT specification cylinders.
● The type label that is used and shown in appendix A is not metallic.
Committee Meeting Action: Accept

10-92 Log #71 **Final Action: Accept**
(8.7.2.2(4) (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Add new text to read as follows:
8.7.2.2(4) Made of a durable, weatherproof material with a pressure sensitive adhesive.
Substantiation: Text further describes what the label is constructed of and type of adhesive acceptable.
Committee Meeting Action: Accept

10-93 Log #72 **Final Action: Reject**
(8.7.2.2(5) (New))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Add new text to read as follows:
8.7.2.2(5) Color to be black print on a silver background.
Substantiation: Text further describes what the label including print color and background color.
Committee Meeting Action: Reject
Committee Statement: Committee was not given any justification to require a certain color for these labels.

10-94 Log #61 **Final Action: Accept in Principle**
(8.7.2.3)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Delete existing 8.7.2.3 and replace with the following:
8.7.2.3 Fire extinguisher cylinders using DOT specification low pressure cylinders shall be marked in accordance with DOT requirements 180.213. A label may be used for marking.

(1) Marking shall include a R.I.N. number (re-testers identification number) set in a square pattern.

(2) Marking shall include the month and year of the retest.

(3) Cylinders tested by the modified (proof pressure) test method shall be marked with the letter "S" next to the test date (year).

(4) Other information is allowed to be on the label.

(5) Labels shall only be located on the shoulder or foot ring of the cylinder.

Substantiation: Meets the requirements of CFR 49.

Committee Meeting Action: Accept in Principle

Replace existing 8.7.2.3 and the subparagraphs with the wording as follows:
8.7.2.3 In addition to the information in 8.7.2.1, DOT specification cylinders shall be labeled in accordance with 49 CFR 180.213(c)(1).

Committee Statement: The Committee felt the rewording is clearer to the user.

10-95 Log #76 **Final Action: Accept in Part**
(A.3.3.4)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Revise text to read as follows:

A.3.3.4 Certified Person. The objective of a A formal certification program for portable fire extinguisher technicians should be to provide a mechanism for individuals to demonstrate their knowledge of standards and related practices. The certification should provide a mechanism for AHJs to use to evaluate individuals for the necessary knowledge. A certification program normally requires the candidate to successfully pass a written examination. One organization's certification for portable fire extinguisher technicians is based on an individual successfully completing a 150 question examination. The examination is based on this standard and includes questions from both the body and annex sections. The test bank that is used to compile each examination is comprised of over 900 questions, and the examinations are prepared using a software program that randomly assigns the questions to each exam. Therefore, each exam is unique and no two exams are identical. These examinations should be job relevant and should measure the knowledge and skills of the technician. These types of programs should comply with Regulations and National Standards, such as:

- Uniform Guidelines on Employee Selection Procedures;
- US Equal Employment Opportunity Commission (EEOC)
- Standards for Educational & Psychological Testing;
- National Council on Measurement in Education (NCME)
- American Educational Research Association (AERA)
- American Psychological Association (APA)

Substantiation: Formal certification programs must meet a minimum acceptable standard that ensures a proper examination preparation. Certification exams need to be fair and unbiased since these tests could have an impact on the livelihood of individuals taking the examinations.

Requiring certified technicians helps protect public safety and promotes professionalism and expertise and helps ensure the competency of those individuals involved in the service industry.

Committee Meeting Action: Accept in Part

Add text to section A.7.1.2.1 to read as follows:

A.7.1.2.1 A certification program normally requires the candidate to successfully pass a written examination.

Committee Statement: This wording closely relates to the requirements found in NFPA 17A, the bulleted items are not standards and this reflects the current certification programs available.

10-96 Log #83 **Final Action: Accept**
(A.4.4.1)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Add new text to read as follows:

A.4.4.1 In October of 1984 the UL 299 listing requirements for fire extinguishers changed. Many of these changes were brought about by an extensive series of fire tests that were called "Novice Fire Extinguisher Tests". In these tests untrained people were selected to extinguish fires with fire extinguishers. Based on these tests and problems associated with the novice's use several changes were incorporated in the listing requirements.

- Extinguishers with a 2-A or 20-B or higher must be equipped with a discharge hose.
- Revisions were made to the maximum force required to remove pull pin and the minimum amount of force required to shear the pull pin.
- New marking requiring for the extinguishers were added

- The minimum area used to provide operating instructions was revised
- New marking, use, and operating instructions and pictograms was introduced

- Recharging instruction information was revised
- New requirements for service manuals was introduced.

Substantiation: Adding this information to the annex will provide information for the users of the standard. NAFED continues to receive a number of requests to explain why these extinguishers are being removed from service.

Committee Meeting Action: Accept

10-97 Log #62 **Final Action: Accept**
(A.7.2.2, Figure A.7.2.2(a), Figure A.7.2.2(b), Figure A.7.2.2(c), Figure A.7.2.2(d), and Figure A.7.2.2(e))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

Re-number to read A.7.3.1.5, Figure A.7.3.1.5(a), Figure A.7.3.1.5(b), Figure A.7.3.1.5(c), Figure A.7.3.1.5(d), Figure A.7.3.1.5(e).

Substantiation: Referencing previous proposal, ties Annex material to specific maintenance paragraph.

Committee Meeting Action: Accept

10-98 Log #64 **Final Action: Accept**
(Figure A.7.2.2(c))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise as follows:

FIGURE A.7.2.2(c) Continue procedure with fig. a & b above.

Substantiation: Caption is incorrect.

Committee Meeting Action: Accept

Change the referenced section as follows:

A.7.3.1.5(c)

Committee Statement: Changed the referenced section from A.7.2.2(c) to A.7.3.1.5(c), (Editorial)

10-99 Log #63 **Final Action: Accept**
(A.7.3.1.2.1)

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Revise text to read as follows:

A.7.3.1.2.1 – renumber as A.7.3.1.2.1.2 and place asterisk next to 7.3.1.2.1.2 in the main body of the standard.

Substantiation: Editorial - This paragraph in the annex relates more to 7.3.1.2.1.2 than it does to 7.3.1.2.1.

Committee Meeting Action: Accept

10-100 Log #84 **Final Action: Reject**
(A.7.3.1.3)

Submitter: Norbert W. Makowka, National Association of Fire Equipment Distributors

Recommendation: Revise text to read as follows:

A.7.3.1.3 Carbon dioxide hose assemblies have a continuous metal braid that connects to both couplings to minimize the static shock hazard. The reason for the conductivity test is to determine that the hose is conductive from the ~~metal-coupling extinguisher valve~~ to the outlet orifice. A basic conductivity tester consists of a flashlight having an open circuit and a set of two wires with a conductor (clamps or probe) at each end.

Substantiation: Some service companies have applied a thread sealant onto the hose coupling that insulates the hose from the extinguisher valve. Checking the continuity of the hose does not verify that there is continuity between the extinguisher and the nozzle orifice.

Committee Meeting Action: Reject

Committee Statement: The main body text was rejected. See Proposal 10-58 (Log #20).

10-101 Log #10 **Final Action: Accept in Principle**
(B.1.1)

Submitter: Conrado Marin, Exanco Chile S.A.

Recommendation: Delete text to read as follows:

Class K pictograph
(2) Dry-Chemical based)

Substantiation: Dry chemical based extinguishers do not have a class K rating.

Committee Meeting Action: Accept in Principle

Remove all reference to (1), (2), (3) under each label in Figure B.1.1

Committee Statement: Committee action will eliminate confusion and allows the listing process to drive the marking of extinguisher process.

10-102 Log #11 **Final Action: Reject**
(B.1.1)

Submitter: Conrado Marin, Exanco Chile S.A.
Recommendation: Add text to read as follows:
Add the class A pictograph to the class K.

Substantiation: A class K fire extinguisher should have also class A rating. The extinguishers being sold today do have both pictographs.

Committee Meeting Action: Reject

Committee Statement: If the Class K extinguisher has a Class A rating, then the extinguisher would have a Class A pictogram in addition to the Class K pictogram in accordance with its listing.

10-103 Log #33 **Final Action: Accept**
(Figure D.4.5(a))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Revise as follows:

Figure D.4.5(a) delete drawing and insert same drawing used for Figure D.4.4.1 changing "halogenated agent" label to Dry chemical.

Substantiation: Current illustration is of a stored pressure dry chemical extinguisher that was considered obsolete in the early 1970's and would fall under the "obsolete extinguishers section 4.4, 4.4.1 or 4.4.2. Suggested illustration more accurately depicts stored pressure dry chemical extinguishers currently being manufactured and likely to be encountered in the field.

Committee Meeting Action: Accept

10-104 Log #32 **Final Action: Accept**
(D.4.7(a))

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Delete this picture as wand is no longer allowed as per the standard.

Substantiation: Same.
Committee Meeting Action: Accept

10-105 Log #CP37 **Final Action: Accept**
(E.3.3)

Submitter: Technical Committee on Portable Fire Extinguishers,
Recommendation: Revise text as follows:

1. Revise Figure E.3.3 to show one square inside a circle with radius of 75 ft
2. Revise E.3.3 to read as follows:
The area of a right triangle is 1/2 base times height. The area inscribed by circle is 2(1/2 base times height).

$$\begin{aligned} \text{Base} &= 150 \\ \text{Height} &= 75 \\ 1/2 \times 150 &= 75 \\ 75 \times 75 &= 5625 \\ 5625 \times 2 &= 11,250 \end{aligned}$$

One side of a square is the square root of the total area.

The square root of 11,250 = 106 ft.

If a building floor area were unobstructed and circular in shape with a radius of 75 ft, it would be possible to place one fire extinguisher at the center without exceeding the 75 ft travel distance.

As buildings are usually rectangular in shape, the largest square area that can be formed with no point more than 75 ft from the center is 11,250 ft², which is the area of a square inscribed within a 75 ft radius circle. A square with an area or 11,250 ft² is 106 ft x 106 ft. Therefore, the maximum area to be protected by a single extinguisher is 11,250 ft² as shown in Tables 6.2.1.1 and E.3.4. If extinguishers were placed at the maximum 75 ft travel distance, they would be 106 ft apart and 106 ft from the nearest wall as shown in Figure 1.

3. Add Figure 1 as described below.

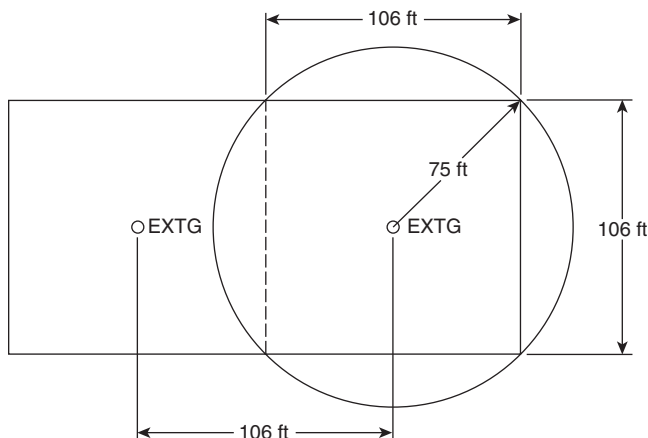


Figure 1 Extinguishers placed 106 feet apart to comply with the 75 feet travel distance and 11,250 square feet maximum floor area per extinguisher.

Substantiation: Rewrite clarifies the intent of this section
Committee Meeting Action: Accept

10-106 Log #65 **Final Action: Reject**
(Table G.2)

Submitter: Michael J. Laderoute, MJL Associates, Inc.
Recommendation: Delete Table G.2 Class B Rating Equivalencies in its entirety. Also delete the last 3 paragraphs of the text.

Substantiation: Extinguishers manufactured prior to 1955 have been added to the list of Obsolete extinguishers in 4.4 There is another proposal to include all extinguishers instead of just stored pressure extinguishers. This table is ungainly for an enforcement authority to use as it is confusing and refers to a rating system that has not been used in over 50 years. The last 3 paragraphs are no longer relevant.

Committee Meeting Action: Reject

Committee Statement: See Committee Action on Proposal 10-16 (Log #35)

10-107 Log #86 **Final Action: Accept in Principle**
(H.2)

Submitter: Bob Eugene, Underwriters Laboratories Inc.

Recommendation: Revise text to read as follows:

H.2 Health and Safety Conditions that Affect Selection.

When a fire extinguisher is being selected, consideration should be given to the health and safety hazards involved in its maintenance and use, as described in items H.2(1) through H.2(8):

(1) For confined spaces, prominent caution labels on the fire extinguisher, warning signs at entry points, provision for remote application, extra-long-range fire extinguisher nozzles, special ventilation, provision of breathing apparatus and other personal protective equipment, and adequate training of personnel are among the measures that should be considered.

(2) Halogenated agent-type fire extinguishers contain agents whose vapor has a low toxicity. However, their decomposition products can be hazardous. When using these fire extinguishers in unventilated places, such as small rooms, closets, motor vehicles, or other confined spaces, operators and others should avoid breathing the gases produced by thermal decomposition of the agent.

(3) Carbon dioxide fire extinguishers contain an extinguishing agent that will not support life when used in sufficient concentration to extinguish a fire. The use of this type of fire extinguisher in an unventilated space can dilute the oxygen supply. Prolonged occupancy of such spaces can result in loss of consciousness due to oxygen deficiency.

(4) Fire extinguishers not rated for Class C hazards (e.g., water, antifreeze, soda acid, loaded stream, AFFF, FFFP, wetting agent, foam, and carbon dioxide with metal horns) present a shock hazard if used on fires involving energized electrical equipment.

(5) Dry chemical fire extinguishers, when used in a small unventilated area, can reduce visibility for a period of up to several minutes. Dry chemical, discharged in an area, can also clog filters in air-cleaning systems.

(6) A dry chemical fire extinguisher containing ammonium compounds should not be used on oxidizers that contain chlorine. The reaction between the oxidizer and the ammonium salts can produce an explosive compound (NC13).

(7) Halon extinguishers should not be used on fires involving oxidizers, since they can react with the oxidizer.

(8) Most fires product toxic decomposition products of combustion, and some materials, upon burning, can produce highly toxic gases. Fires can also consume available oxygen or produce dangerously high exposure to convected or radiated heat. All of these can affect the degree to which a fire can be safely approached with fire extinguishers. (See Bulletin of Research No. 53, "Survey of Available Information on the Toxicity of the Combustion and Thermal-Decomposition Products of Certain Building Materials under Fire Conditions.")

Table H.2 summarizes the characteristics of fire extinguishers and can be used as an aid in selecting fire extinguishers in accordance with Chapter 5. The ratings given are those that were in effect at the time this standard was prepared. Current listings should be consulted for up-to-date ratings.

Substantiation: Bulletin of Research No. 53 is no longer readily available.

Committee Meeting Action: Accept in Principle

Revise text to read as follows:

H.2 Health and Safety Conditions that Affect Selection.

When a fire extinguisher is being selected, consideration should be given to the health and safety hazards involved in its maintenance and use, as described in items H.2(1) through H.2(8):

(1) For confined spaces, prominent caution labels on the fire extinguisher, warning signs at entry points, provision for remote application, extra-long-range fire extinguisher nozzles, special ventilation, provision of breathing apparatus and other personal protective equipment, and adequate training of personnel are among the measures that should be considered.

(2) Halogenated agent-type fire extinguishers contain agents whose vapor has a low toxicity. However, their decomposition products can be hazardous. When using these fire extinguishers in unventilated places, such as small rooms, closets, motor vehicles, or other confined spaces, operators and others should avoid breathing the gases produced by thermal decomposition of the agent.

(3) Carbon dioxide fire extinguishers contain an extinguishing agent that will not support life when used in sufficient concentration to extinguish a fire. The use of this type of fire extinguisher in an unventilated space can dilute the oxygen supply. Prolonged occupancy of such spaces can result in loss of consciousness due to oxygen deficiency.

(4) Fire extinguishers not rated for Class C hazards (e.g., water, antifreeze, loaded stream, AFFF, FFFP, wetting agent, and foam) present a shock hazard if used on fires involving energized electrical equipment.

(5) Dry chemical fire extinguishers, when used in a small unventilated area, can reduce visibility for a period of up to several minutes. Dry chemical, discharged in an area, can also clog filters in air-cleaning systems.

(6) A dry chemical fire extinguisher containing ammonium compounds should not be used on oxidizers that contain chlorine. The reaction between the oxidizer and the ammonium salts can produce an explosive compound (NC13).

(7) Halogenated extinguishers should not be used on fires involving oxidizers, since they can react with the oxidizer.

(8) Most fires produce toxic decomposition products of combustion, and some materials, upon burning, can produce highly toxic gases. Fires can also consume available oxygen or produce dangerously high exposure to convected or radiated heat. All of these can affect the degree to which a fire can be safely approached with fire extinguishers.

Table H.2 summarizes the characteristics of fire extinguishers and can be used as an aid in selecting fire extinguishers in accordance with Chapter 5. The ratings given are those that were in effect at the time this standard was prepared. Current listings should be consulted for up-to-date ratings.

Committee Statement: Editorial changes to reflect the current status of this standard

10-108 Log #92 **Final Action: Accept**
(Table H.2)

Submitter: Bradford Colton, American Pacific Corporation

Recommendation: Revise text to read as follows:

For halocarbon extinguishing agents, the "Approximate Time of Discharge" is listed as "9 to 23 sec" and this should be revised as follows:

9 to 23 ~~38~~ sec.

Substantiation: The Amerex model 674 (which contains 150 lb of Halotron I and has an UL listed rating of 10-A:80-B:C) has a discharge time of 38 seconds.

Committee Meeting Action: Accept

10-109 Log #67 **Final Action: Reject**
(Table I.1(a) and (b))

Submitter: Michael J. Laderoute, MJL Associates, Inc.

Recommendation: Entire table should be edited by the committee for accuracy and current requirements. Many items are now addressed in the body of the Standard – amount of corrosion allowed, size and depth of dent, testing and replacement of pressure regulators on cylinder operated wheeled units, etc.

Substantiation: New requirements in the body of the standard requires an update of the table.

Committee Meeting Action: Reject

Committee Statement: Committee task group is examining this annex. No recommended text is provided.

10-110 Log #89 **Final Action: Accept**
(K.1.2.3)

Submitter: Bob Eugene, Underwriters Laboratories Inc.

Recommendation: Revise text to read as follows:

K.1.2.3 UL Publications. Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 711, Standard for Rating and Fire Testing of Fire Extinguishers, 2002 ~~2007~~.

~~Bulletin of Research No. 53, "Survey of Available Information on the Toxicity of the Combustion and Thermal Decomposition Products of Certain Building Materials under Fire conditions," July 1963.~~

Substantiation: Updated referenced standard to include the most recent revisions.

Bulletin of Research No. 53 is no longer readily available.

Committee Meeting Action: Accept

Committee Statement: See action on Proposal 10-5 (Log #88)