AGENDA

NFPA Technical Committee on Fire Tests (FIZ-AAA)
NFPA 253, 259, 260, 261, 262, 265, 270, 274, 276, 286, 289, 290, 701, 705 Second Draft Meeting (F22)

Tuesday, March 22, 2022
11:00 a.m. – 3:00 p.m. (ET)

Web/Teleconference via Teams
To join the meeting, please contact kcarey@nfpa.org

1. **Call to order.** B. Badders.
2. **Introductions.** See committee roster attached.
3. **Chair report.** B. Badders.
4. **Staff liaison report.** T. Vecchiarelli.
5. **Previous meeting minutes.** March 2021 Web/Teleconference. See attached.
6. **NFPA 253, 259, 260, 261, 262, 265, 270, 274, 276, 286, 289, 290, 701, 705 Second Draft.**
   a. **Public Comments.** See attached.

Doc #	# PCs
NFPA 253	0
NFPA 259	1
NFPA 260	14
NFPA 261	1
NFPA 262	2
NFPA 265	1
NFPA 270	2
NFPA 274	1
NFPA 276	0
NFPA 286	2
NFPA 289	2
NFPA 290	0
NFPA 701	2
NFPA 705	1

   b. **Task group report(s).**
      i. **Bathroom Partitions**. K. Carpenter.
   c. **Committee Inputs.** See attached.
7. **Other Business.**
8. **Future meetings.**
9. **Adjournment.**

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Fire Tests

FIZ-AAA

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MINUTES

NFPA Technical Committee on Fire Tests
F2021 Second Draft Meeting and F2022 First Draft Meeting
Monday, March 1, 2021 -12:00 pm – 4:00 pm ET
Tuesday March 2, 2021 -12:00 pm – 4:00 pm ET
Friday, March 5, 2021 -12:00 pm – 4:00 pm ET
Monday, March 8, 2021 -12:00 pm – 4:00 pm ET

1. The meeting was called to order by Chair B. Badders at 12:00 pm ET on Monday, March 1st.

2. Staff called the roll of technical committee (TC) members and guests.

The following members were in attendance:

NAME	REPRESENTING
Barry Badders, Jr., Chair	Intertek Testing Services
Benjamin Caldwell, Principal	Bjarke Ingels Group (BIG)
Karen Carpenter, Principal	Southwest Research Institute
William Fitch, Principal	Phyrefish.com
Richard Gann, Principal	Self-employed
Marcelo Hirschler, Principal	GBH International
Paul Hough, Principal	Armstrong World Industries, Inc.
William Koffel, Principal	Koffel Associates, Inc.
Sergei Levchik, Principal	Israel Chemicals Ltd. (ICL-IP)
Michael Luna, Principal	ICC NTA, LLC
James Lynch, Principal	The Fire Solutions Group
John Martell, Principal	Professional Fire Fighters of Maine/IAFF
Kathleen Newman, Principal	Firetect
Arthur Parker, Principal	JENSEN HUGHES
Bill Perdue, Principal	American Home Furnishings Alliance-AHFA
Shamim Rashidsumar, Principal	National Ready Mixed Concrete Assn.
Michael Savage, Sr., Principal	Marion County Building Safety
Michael Schmeida, Principal	Gypsum Association
David Sheppard, Principal	US Bureau of Alcohol, Tobacco, Firearms & Explosives
Dwayne Sloan, Principal	UL LLC
Kuma Sumathipala, Principal	American Wood Council
Peter Willse, Principal	AXA XL/Global Asset Protection Services, LLC
Dong Zeng, Principal	FM Global
Marc Alam, Alternate to R. McPhee	Canadian Wood Council
Richard Davis, Alternate to D. Zeng	FM Global

NAME	REPRESENTING
Timothy Earl, Alternate to M. Hirschler	GBH International
Paul Fuss, Alternate to D. Sheppard	US Bureau of Alcohol, Tobacco, Firearms & Explosives
Karl Houser, Alternate to B. Badders, Jr.	Intertek
Elizabeth Keller, Alternate to S. Dillon	Engineering Systems, Inc.
Karl Houser, Alternate to B. Badders, Jr.	Intertek
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Cori Leffler, Alternate to K. Newman	Firetect
Andrew Lock, Alternate to Non-Voting Membefr, R. Khanna	US Consumer Product Safety Commission
Daniel Martin, Alternate to A. Parker	JENSEN HUGHES
Jason Smart, Alternate to K. Sumathiapala	American Wood Council (AWC)
Matthew Vinci, Alternate to J. Martell	International Association of Fire Fighters
Tracy Vecchiarelli, Staff Liaison	NFPA

The following members were not in attendance (noted only where Alternate was not in attendance):

NAME	REPRESENTING
Robert Barker, Non-Voting Member	American Fiber Manufacturers Association
Rick Davis, Principal	National Institute of Standards & Technology (NIST)
Richard Day, Principal	Michigan State Fire Marshal's Office
Robert Wills, Voting Alternate	American Iron and Steel Institute

The following guests were in attendance:

NAME	REPRESENTING
Jesse Beitel	
Eric Banks	EW Banks Consulting LLC
Seth Fernandez	Toxicologist/Green Science Policy
Monica Enamorado Gomez	BASF
Nicholas Resetar	Roetzel and Andress
Lorraine Ross	Intech Consulting Inc
John Stahl	Preferred Solutions
Javier Trevino	Priest Associates
Stephen Ganoe	NFPA
Camille Levy	NFPA

3. The F2021 First Draft meeting minutes were approved as submitted.

4. T. Vecchiarelli presented a PowerPoint presentation of an overview of the First Draft/Second Draft meeting procedures and process.

5. The committee acted on and resolved the public comments on the following documents:
   a. NFPA 268

b. NFPA 269
c. NFPA 275
d. NFPA 285 (see related minute item 7a)
e. NFPA 287
f. NFPA 252 (0 PCs)
g. NFPA 257 (0 PCs)
h. NFPA 288 (0 PCs)

6. The committee acted on and resolved the public inputs on the following documents:
    a. NFPA 259
    b. NFPA 270
    c. NFPA 289
    d. NFPA 261
    e. NFPA 274
    f. NFPA 290
    g. NFPA 260 (see related minute item 7b)
    h. NFPA 276
    i. NFPA 701
    j. NFPA 262
    k. NFPA 265
    l. NFPA 286
    m. NFPA 253
    n. NFPA 705 (0 PIs)

7. **Task group reports.**
    a. NFPA 285 Engineering Judgement Task Group Report. J. Beitel
        i. J. Beitel provided a task group report and presented the revised Annex B draft. The committee reviewed the draft, provided edits, and created a SR. The task group was thanked for their work and disbanded by the Chair.
    b. NFPA 260 Task Group Report. R.Gann
        i. R. Gann provided a task group report. The committee reviewed and acted on PIs submitted by the task group members. The task group was thanked for their work and disbanded by the Chair.
    c. Bathroom Partitions Task Group Report. K. Carpenter
        i. The task group will continue their work for the Second Draft meetings.
8. **Other business.**
    a. Fire Test revision cycles.
        i. T. Vecchiarelli discussed the revision cycles for the fire test documents. The TC reviewed the two groupings of documents and the NFPA 285 outlier. The TC agreed to continue 285 on it's separate 3 year cycle to continue improving the standard.
9. **Future meetings.** The next meeting will be the F2022 Second Draft meeting held between January and June of 2022.
10. **Adjournment.** The meeting ended on Friday March 5th at 3:30 PM.

Public Comment No. 1-NFPA 259-2021 [Section No. D.1.2.1]

D.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials,* ~~2020~~ 2021a .

ASTM E136, *Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C*, 2019a.

ASTM E906/E906M, *Standard Method of Test for Heat and Visible Smoke Release Rates for Materials and Products Using a Thermopile Method,* ~~2017~~ 2021 .

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter (Cone Calorimeter),* 2017.

ASTM E1474, *Standard Test Method for Determining the Heat Release Rate of Upholstered Furniture and Mattress Components or Composites Using a Bench Scale Oxygen Consumption Calorimeter*, ~~2020a~~ 2021 .

ASTM E1537, *Standard Test Method for Fire Testing of Upholstered Seating Furniture*, 2016.

ASTM E1590, *Standard Test Method for Fire Testing of Mattresses*, ~~2017~~ 2021 .

ASTM E1822, *Standard Test Method for Fire Testing of Stacked Chairs*, ~~2017~~ 2021 .

ASTM E2965, *Standard Test Method for Determination of Low Levels of Heat Release Rate for Materials and Products Using an Oxygen Consumption Calorimeter*, 2017.

Gross, D., and M. G. Natrella, “Interlaboratory Comparison of the Potential Heat Test Method,” in ASTM STP 464, *Fire Test Performance*, 1970, pp. 127–152.

Loftus, J. J., D. Gross, and A. F. Robertson. “Potential Heat, a Method for Measuring the Heat Release of Materials in Building Fires,” *ASTM Proceedings*, Vol. 61, 1961, pp. 1336–1348.

Parker, W. J., and M. E. Long. “Development of a Heat Release Rate Calorimeter at NBS,” ASTM STP 502, *Ignition, Heat Release and Noncombustibility of Materials,* 1972, pp. 135–151.

Robertson, A. F. “Test Method Categorization and Fire Hazard Standards,” *ASTM Standardization News*, Nov. 1975, pp. 18–20.

Statement of Problem and Substantiation for Public Comment

date updates

Related Item

• fr4

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Submittal Date: Thu Dec 16 20:41:19 EST 2021

Committee: FIZ-AAA

Public Comment No. 13-NFPA 260-2021 [Section No. 1.1]

1.1 Scope.

1.1.1*

The tests described in this document apply to upholstered furniture components that are tested in a standard, defined composite.

1.1.2

These tests shall apply to cover fabrics, interior fabrics, welt cords, decking materials, barrier materials, and filling/padding materials including, but not limited to, battings of natural or man-made fibers, foamed or cellular filling materials, resilient pads of natural or man-made fibers, and loose particulate filling materials such as shredded polyurethane foam or feathers and down.

I see no better place to make this comment – I propose serious discussion regarding the need for another furniture smolder test and believe that NFPA's time can be better spent on more pertinent subjects.

Statement of Problem and Substantiation for Public Comment

I see no better place to make this comment – I propose serious discussion regarding the need for another furniture smolder test and believe that NFPA's time can be better spent elsewhere. The new CPSC (Title XXI…) furniture flammability standard should suffice. Its existence certainly threatens the future usefulness of NFPA 260, UFAC, and ASTM 1353. Continuing these somewhat redundant standards - which serve little functional purpose - contributes to misunderstanding of the newly enacted federal program.
UFAC has discontinued use of its 35+ year old smolder standard, though the welt cord test continues alongside the new federal furniture flammability standard (a.k.a. TB117-2013) in the UFAC test program.

Related Item

• none available

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Submittal Date:	Fri Oct 22 13:54:47 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 16-NFPA 260-2021 [Section No. 1.1.2]

1.1.2*

These tests shall apply to cover fabrics, interior fabrics, welt cords, decking materials, barrier materials, and filling/padding materials including, but not limited to, battings of natural or man-made fibers, foamed or cellular filling materials, resilient pads of natural or man-made fibers, and loose particulate filling materials such as shredded polyurethane foam or feathers and down.

A.1.1.2 Codes that govern the use of upholstered furniture, including NFPA's Life Safety Code (NFPA 101) and the International Fire Code, reference these test methods as part of their regulations.

(Also add NFPA 101, Life Safety Code, 2021 edition, and International Fire Code (2021 edition) into the section on informational references)

Statement of Problem and Substantiation for Public Comment

The issuance of the SOFA act which adopted CA TB 117-2013 as a national requirement for upholstered furniture materials sold in the United States does not replace the requirements contained in codes and regulations (such as those in the 2021 editions of NFPA 101 and of the IFC) for additional testing to NFPA 260.
Furthermore, neither the public inputs to the 2024 edition of NFPA 101 nor the public inputs or comments to the 2024 edition of the IFC have recommended deletion of these requirements so that they will appear in those editions as well.

Related Item

• pi25

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Public Comment No. 15-NFPA 260-2021 [Section No. 1.2]

1.2 Purpose.

1.2.1

The test methods in this document are designed to evaluate the ignition resistance of upholstered furniture when it is exposed to smoldering cigarettes under specified conditions.

1.2.2

It is the intent of this standard to provide tests to determine whether covered upholstered furniture components, such as cover fabrics, welt cords, decking materials, interior fabrics, and filling/padding materials, are relatively resistant to ignition by smoldering cigarettes.

1.2.3– *

This standard establishes a classification system for determining the resistance of upholstered furniture components to cigarette ignition.

1.2.4

For the purposes of this standard, materials are designated Class II unless they are demonstrated to be Class I using the test methods in this document.

A.1.2.3 The use of a barrier classified by this test method as a Class I–type barrier between a cover fabric or a padding material classified as a Class -II type material is not sufficient to ensure thar the resulting upholstered furniture assembly will exhibit appropriate ignition resistance of the upholstered furniture item when it is exposed to smoldering cigarettes.

Statement of Problem and Substantiation for Public Comment

The addition of section 1.2.4 clarifies that the results of testing to the new edition of NFPA 260 will produce one of two results: either the material is a Class I material (which means it passed the test) or it is a Class II material (which means it failed the test). The old section A.1.2.3 stated as shown below and did not make it clear that this test is really a pass/fail test. That was the intent of stating that cover fabrics that failed the test (i.e. Class II ones) should not be used when constructing furniture intended to be resistant to cigarette ignition.
"Old A.1.2.3 Cover fabrics determined to be Class II by this test should not be used in the manufacture of furniture intended to be resistant to cigarette ignition without a Class I–type barrier. Barrier materials also are classified by this test. Any other components determined to be Class II by this test should not be used in the manufacture of furniture intended to be resistant to cigarette ignition."
This public comment suggests it might be worth explaining further that the resistance to cigarette ignition can be improved by using a Class I barrier material, but that the use of such a barrier does not ensure that the furniture will be resistant to cigarette ignition, and that is being proposed here. This brings back some of the intent of the information originally in A.1.2.3.

Related Item

• fr2

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Public Comment No. 6-NFPA 260-2021 [Section No. 2.3.1]

2.3.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. www.astm.org

ASTM D737, *Standard Test Method for Air Permeability of Textile Fabrics*, 2018.

ASTM D3574, *Standard Test Methods for Flexible Cellular Materials — Slab, Bonded, and Molded Urethane Foams*, 2017.

addition:

ASTM E1353-08a Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture

Statement of Problem and Substantiation for Public Comment

Since ASTM E1353-08a is a much referenced protocol document in TITLE XXI—COVID–19 REGULATORY RELIEF AND WORK FROM HOME SAFETY ACT and California Technical Bulletin 117-2013. It should be included in this list of associated publications.

Related Item

• new ASTM reference

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Public Comment No. 7-NFPA 260-2021 [Section No. 2.3.3]

2.3.3 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

additions:

California Technical Bulletin 117-2013

T ITLE XXI—COVID–19 REGULATORY RELIEF AND WORK FROM HOME SAFETY ACT

Statement of Problem and Substantiation for Public Comment

Not sure where these two standards fit but they should be referenced in the revised NFPA 260.
California Technical Bulletin 117-2013
TITLE XXI—COVID–19 REGULATORY RELIEF AND WORK FROM HOME SAFETY ACT

Related Item

• more references suggested

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Committee:	FIZ-AAA

Public Comment No. 5-NFPA 260-2021 [Section No. 3.3]

3.3 General Definitions.

3.3.1 Barrier/Barrier Fabric.

The fabric or other material placed directly under the cover fabric when Class II cover fabric is used.

3.3.2 Char.

Carbonaceous material formed by pyrolysis or incomplete combustion.

3.3.3 Filling Direction.

In woven fabrics, that direction perpendicular to the warp direction.

3.3.4 Ignition.

Continuous, self-sustaining, smoldering combustion of upholstered furniture substrates after exposure to burning cigarettes.

3.3.5* Machine Direction.

In the case of nonwoven or film-type materials, that direction parallel to the longest dimension of the roll goods.

3.3.6 Sample.

Material being tested.

3.3.7 Selvedge.

The outermost edge of the width of the fabric.

3.3.8 Specimen.

Individual pieces of a sample used in a single test assembly.

3.3.9 Warp Direction.

In woven textiles, that direction on the roll of fabric that is parallel to the selvedges.

3.3.10 _ Welt. Cord

The cord or piping sewn into the seam or border edge of a cushion, pillow, arm, or back of a furniture item.

additions:

3.3.11 Component

For purposes of clarification, a component will be one of the test subjects - cover fabric, interior fabric, welt cord, filling or padding, decking material, barrier material.

3.3.12 Cover fabric

textile, leather or other product used to encompass the outer surfaces, excluding furniture bottom, of upholstered furniture.

Statement of Problem and Substantiation for Public Comment

"Welt cord" is the term used within the upholstered furniture business and within NFPA 260. Welt is not a common term.

The term "material," used alone often within NFPA 260, is too generic. The terms "material," "cover

fabric," "cover," "fabric" and "component" are often used interchangeably. Example: see conflicting terms in 7.1.1 versus 7.1.2. Either add a definition for “material” as used in 1.2.4 (or discontinue its use by referring to “components”).

Strong consideration should also be given to the addition of a definition for “material” as used in 1.2.4 (or discontinue its use by referring to “components”). The terms material, cover fabric, and component are often used interchangeably. Example: see conflicting terms in 7.1.1 versus 7.1.2.

The two new terms - "component" and "cover fabric" (which would, by definition, include leather) - help to clarify any confusion created by "material."

Related Item

• clarification of terms used to describe furniture parts to be tested

Submitter Information Verification

Submitter Full Name:	Bobby Bush
Organization:	Hickory Spgs
Affiliation:	Hickory Springs Mfg Co / Upholstered Furniture Action Council
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Submittal Date:	Wed Oct 13 15:33:34 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 8-NFPA 260-2021 [Section No. 3.3.10]

3.3.10 Welt Cord .

The cord or piping sewn into the seam or border edge of a cushion, pillow, arm, or back of a furniture item.

Statement of Problem and Substantiation for Public Comment

consistency:
The product is called welt cord in the furniture industry and throughout most of NFPA 260-2019 and in other associated documents such as the UFAC guidelines.

Calling it "cord" would be more appropriate than using "welt" alone.

Related Item

• proper terminology

Submitter Information Verification

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Submittal Date:	Fri Oct 22 10:38:48 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 9-NFPA 260-2021 [Section No. 4.3]

4.3* Ignition Source.

The ignition source for the test shall be SRM 1196 cigarettes without filter tips made from natural tobacco, 83 mm ± 2 mm long, with a tobacco packing density of 0.270 g/cm^3 ± 0.020 g/cm^3, and a total weight of 1.1 g ± 0.1 g.

The current version of SRM 1196 series cigarettes shall be used, unless packing density and/or weight (mass) vary by more then 5% and/or changes in other critical dimensions or smolder performance. A change by NIST of this magnitude will initiate action by NFPA to accept or decline the new ignition source.

No issues with use of mass vs weight.

PI: **4.3*** Ignition Source.

In the section, the cigarette is identified by "weight" but should be identified by "mass".

The ignition source for the test shall ~~be~~ consist of the current supply of SRM 1196 series cigarettes without filter tips made from natural tobacco, 83 mm ± 2 mm long, with a tobacco packing density of 0.270 g/cm ^{3} ± 0.020 g/cm ^{3} , and a total ~~weight of~~ mass of 1.1 g ± 0.1 g.

Statement of Problem and Substantiation for Public Comment

NIST should not have carte blanche to change the standard cigarette without question. NFPA should have a say in any future versions, including the use of other cigarettes and other ignition sources.

Related Item

• standard cigarette qualifications

Submitter Information Verification

Submitter Full Name:	Bobby Bush
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Submittal Date:	Fri Oct 22 10:43:33 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 10-NFPA 260-2021 [Section No. 6.2.8.1]

6.2.8.1

If a cigarette extinguishes before burning through its entire length, a fresh cigarette shall be placed on a new test assembly and covered with sheeting fabric until one of the following occurs:

(1) Three cigarettes burn through their entire lengths on three individual test specimens.

(2) Three cigarettes self-extinguish on the sample.

In the 6.2.8.1(2) scenario, the test could conclude "when three cigarettes extinguish on the sample." If there's additional instruction regarding the Classification of these unusual performance, it is not obvious. Is char length measured? Does this cover fabric meet Class I or Class II status or does testing start anew?

There is an inconsistency in how to proceed when the cigarette goes out in the middle of a test. In 6.1.8.1, 6.5.6.1, and 6.6.7.1, it says that "… a fresh cigarette shall be placed on a fresh area of the test assembly." In 6.2.8.1, 6.3.8.1, and 6.4.7.1, it says that "… a fresh cigarette shall be placed on a new test assembly." As a minimum, there should be a section in the Commentary that explains the rationale for the difference. There also needs to be a definition of a "fresh area." The frame width is 203 mm, and the cigarette length is 83 mm. The initial cigarette is centered along the crevice, so the crevice length on either side of the original cigarette is only 60 mm. The decking material tester has some available space for a second test cigarette but lacks guidance as to where it can/cannot be placed. The Task Group suggests the uniform use of a fresh test assembly. That is the change proposed in this PI.

Although it could mean that a lab might go through more than 6 sets of test specimen, it's unwise to re-test the same sample that already has a charred area. If, however, the cigarette expired within the first inch, an argument could be made for retesting the same mockup.

Statement of Problem and Substantiation for Public Comment

Although it could mean that a lab might go through more than 6 sets of test specimen, it's unwise to re-test the same sample that already has a charred area. If, however, the cigarette expired within the first inch, an argument could be made for retesting the same mockup.

In the 6.2.8.1(2) scenario, the test could conclude "when three cigarettes extinguish on the sample." If there's additional instruction regarding the Classification of these unusual performance, it is not obvious. Is char length measured? Does this cover fabric meet Class I or Class II status or does testing start anew?

Related Item

• • extinguishing cigarette procedure clarification

Submitter Information Verification

Submitter Full Name:	Bobby Bush
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Submittal Date:	Fri Oct 22 10:52:29 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 11-NFPA 260-2021 [Section No. 7.3]

7.3 Maximum Char Length.

The maximum vertical char lengths for upholstered furniture components shall be as follows:

(1) Cover fabrics: < 45 mm

(2) Interior fabrics: < 38 mm

(3) Welt cords: < 38 mm

(4) Fillings or paddings: < 38 mm

(5) Decking materials: < 38 mm **(for decking material, char length shall be measured from the original position of each cigarette, not vertically as described in 7.3).**

(6) Barrier materials: < 38 mm

Statement of Problem and Substantiation for Public Comment

Vertical char does not exist and is not measured in the Decking Material test.

Related Item

• correction of char length determination for decking material test

Submitter Information Verification

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Submittal Date:	Fri Oct 22 11:14:44 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 12-NFPA 260-2021 [New Section after 7.4]

see Statement of Problem and Substantiation for Public Comment

Statement of Problem and Substantiation for Public Comment

Concern for significant changes in NFPA 260 protocol;

Well aware that California TB117 was based on weight loss percentage, UFAC established char length as its classification criteria in 1979. The decision to use char length, according to retired UFAC founder Joe Ziolkowski who was one of the UFAC test originators, was to make the protocol more user-friendly for furniture manufacturers and component suppliers who wanted to run the tests themselves. Char length, Ziolkowski said in a July 2021 phone conversation, is simpler to understand and measure than precise weight measurements and loss calculations. Postage scales, typically the only scale found in a furniture company and located in mailrooms, are not accurate enough for precise weight measurement.

The original c1975 TB117 standard test fabric differs significantly from the UFAC Type I standard test fabric. The Bureau chose a relatively thick cotton velvet material that was commonly used at the time to line violin cases. in c1979, UFAC chose a cotton mattress ticking that appeared to promote smolder moreso than its California counterpart.

The original TB117's spec for Standard Fabric was 100% cotton velvet, 14.5 oz per lineal (54") foot, no backcoating. The 117 fabric is not pre-washed.

As is UFAC's, NFPA 260's Standard Type I Cover Fabric is 100 percent cotton mattress ticking conforming to Federal Specification CCC.C.436.D. This Standard Type I cover fabric shall be laundered and tumble-dried before use. (Sections 4.4.1 and 4.4.2).

Though weight (mass) loss was used in California TB117 for years, the significant difference in standard test fabrics between the two protocols provides no justification for mass loss determination, even as an option, in NFPA 260.

Based on the Bureau's developmental research and testing four decades ago, California TB117's Section D-Part I Resilient Filling Materials- Cigarette Resistence test, utilizing the standard cotton velvet fabric, set weight (mass) loss classification determination point at 20% loss (80% weight retention). How will test results of the proposed 10% maximum mass loss with a more smolder-prone standard cotton mattress ticking compare to result from the old TB117 smolder test and the old UFAC smolder test?

Mass loss has not been shown by submitter to be any more helpful or precise in classifying materials/components than char length.

Lower density foams and other resilient filling materials, because they do not have as much weight to lose, would suffer discrimination in comparison to higher density materials. Most detrimental to component producers, furniture manufacturers and fire researchers would be the introduction of new criteria with no prior and/or comparative history. This is an extremely onerous suggested change with no supporting data! Changing weigh loss criteria and standard test fabric within NFPA protocol would create a reset of many - if not most - upholstery components and their design for compliance. And let's not forget the 2019 change in sample thickness from 2" to 3". How does that work with 20% weight loss and a different standard fabric?

Related Item

• concern that NFPA 260 is being hi-jack for purposes other than intended furniture smolder-ignition testing

Submitter Information Verification

Submitter Full Name:	Bobby Bush
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Submittal Date:	Fri Oct 22 13:32:36 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 14-NFPA 260-2021 [Section No. C.1.2.1]

C.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E691, *Standard Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method*, ~~2019e1.~~ 2020

ASTM E1353, *Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture*, ~~2016~~ 2021 .

ASTM E2187, *Standard Test Method for Measuring the Ignition Strength of Cigarettes*, 2020a.

Statement of Problem and Substantiation for Public Comment

date updates

Related Item

• fr15

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Street Address:
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Submittal Date: Thu Dec 16 20:48:46 EST 2021
Committee: FIZ-AAA

Public Comment No. 3-NFPA 260-2021 [Section No. C.1.2.1]

C.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E691, *Standard Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method*, 2019e1.

ASTM E1353, *Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture,* 2016.

ASTM E2187, *Standard Test Method for Measuring the Ignition Strength of Cigarettes*, 2020a.

ASTM E1353-08a, S *tandard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture,* 2008

Statement of Problem and Substantiation for Public Comment

Since ASTM E1353-08a is specifically referenced by California Technical Bulletin 117-2013, it should be specifically included. The 08a suffix will not alter with new TB117-2013 iterations.

Related Item

• specific reference related to federal (CPSC) furniture flammability standard

Submitter Information Verification

Submitter Full Name:	Bobby Bush
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Submittal Date:	Wed Oct 13 15:23:34 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 4-NFPA 260-2021 [New Section after C.1.2.3]

TITLE OF NEW CONTENT

Type your content here ...additional reference material:

California Technical Bulletin 117-2013

TITLE XIX- Covid-19 Regulatory Relief and Work From Home Safety Act (U.S. CPSC requirements for upholstered furniture flammability)

Statement of Problem and Substantiation for Public Comment

Reference to the following standards should not be omitted in NFPA 260:

California Technical Bulletin 117-2013

TITLE XIX- Covid-19 Regulatory Relief and Work From Home Safety Act (U.S. CPSC requirements for upholstered furniture flammability)

Related Item

• applicable standards reference

Submitter Information Verification

Submitter Full Name:	Bobby Bush
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Submittal Date:	Wed Oct 13 15:27:26 EDT 2021
Committee:	FIZ-AAA

Public Comment No. 1-NFPA 261-2021 [Section No. C.1.2.1]

C.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E691, *Standard Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method*, ~~2019e1~~ 2020 .

ASTM E1352, *Standard Test Method for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies*, 2016.

ASTM E2187, *Standard Test Method for Measuring the Ignition Strength of Cigarettes*, 2020a.

Statement of Problem and Substantiation for Public Comment

date updates

Related Item

• fr6

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
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Submittal Date: Thu Dec 16 20:50:45 EST 2021
Committee: FIZ-AAA

Public Comment No. 1-NFPA 262-2021 [Section No. 2.3.1]

2.3.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM C1186, *Standard Specification for Flat Fiber-Cement Sheets,* 2008 (2016).

ASTM C1288, *Standard Specification for Fiber-Cement Interior Substrate Sheets,* 2017.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials,* ~~2020~~ 2021a .

Statement of Problem and Substantiation for Public Comment

update

Related Item

• pi1

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Dec 29 18:31:08 EST 2021
Committee: FIZ-AAA

Public Comment No. 2-NFPA 262-2021 [Section No. E.1.2.1]

E.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM D150, *Standard Test Methods for AC Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulation,* 2018.

ASTM D412, *Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers — Tension,* 2016 e1 .

ASTM D746, *Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact,* 2020.

ASTM D792, *Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement,* 2020.

ASTM D2240, *Standard Test Method for Rubber Property — Durometer Hardness,* ~~2015e1~~ 2015 (2021) .

ASTM D2863, *Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index),* 2019.

ASTM D4100, *Standard Test Method for Gravimetric Determination of Smoke Particulates from Combustion of Plastic Materials,* 1982 1989 e1 (withdrawn 1997).

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials,* 2020.

Statement of Problem and Substantiation for Public Comment

updates

Related Item

• pi2

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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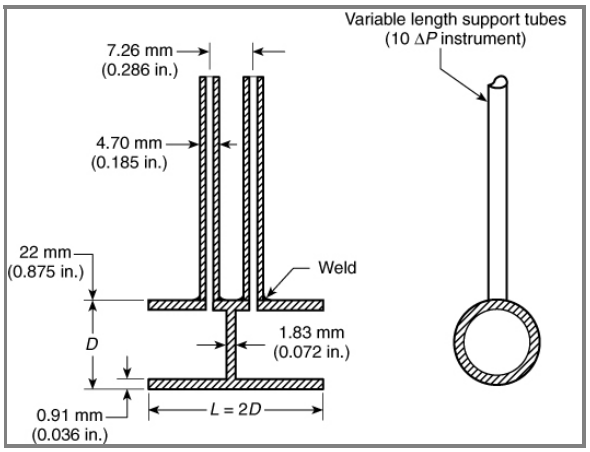
Submittal Date: Wed Dec 29 18:32:03 EST 2021
Committee: FIZ-AAA

Public Comment No. 1-NFPA 265-2021 [Section No. 7.3.2.1]

7.3.2.1

A typical probe, shown in Figure 7.3.2.1, shall consist of a short stainless steel cylinder that is 44 mm (1.75 in.) long and has a 22 mm (0.875 in.) inside diameter with a solid diaphragm in the center.

Figure 7.3.2.1 Bidirectional Probe.



Additional Proposed Changes

File Name	Description	Approved
265_F2022_FIZ_AAA_CI_Statement.pdf	Proposed revision of section 7.3.2.1 of NFPA 265	

Statement of Problem and Substantiation for Public Comment

The technical committee developed a committee input, shown attached. Thus public comment recommends that the committee input be implemented as a second revision.

Related Item

• ci1

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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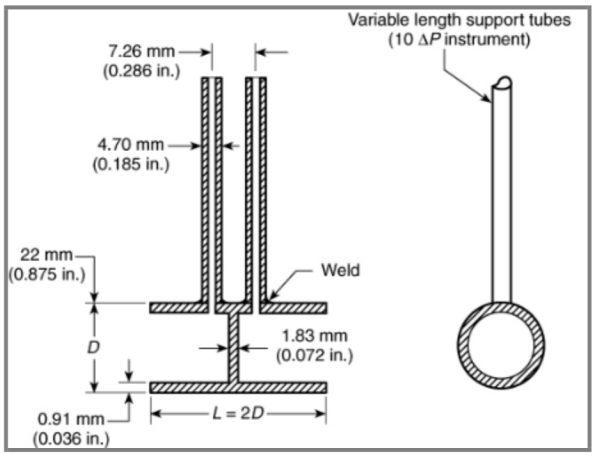
Submittal Date: Wed Dec 29 18:44:13 EST 2021
Committee: FIZ-AAA

Committee Input No. 6-NFPA 265-2021 [Section No. 7.3.2.1]

7.3.2.1

A typical probe, shown in Figure 7.3.2.1, shall consist of a short stainless steel cylinder ~~that is 44 mm (1.75 in.) long and has a 22 mm (0.875 in.) inside diameter~~ with length L and inside diameter D, with a solid diaphragm in the center.

Figure 7.3.2.1 Bidirectional Probe.



((Revise figure to remove all dimensions except for labels D and L=2D. Move D dimension lines to inside diameter.)

Submitter Information Verification

Committee: FIZ-AAA

Submittal Date: Fri Mar 19 08:29:51 EDT 2021

Committee Statement

Committee Statement: The current figure contains dimensions that are not found in the code text. The most important part of the figure is to show that L=2D.

Response Message: CI-6-NFPA 265-2021

Public Comment No. 1-NFPA 270-2021 [Section No. 2.3.2]

2.3.2 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM C1186, *Standard Specification for Flat Fiber-Cement Sheets*, 2008 (2016) .

ASTM C1288, *Standard Specification for Fiber-Cement Interior Substrate Sheets*, 2017.

ASTM E176, *Standard Terminology of Fire Standards*, ~~2018ae1~~ 2021 .

Statement of Problem and Substantiation for Public Comment

updates

Related Item

• fr3

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Submittal Date: Mon Dec 27 20:03:30 EST 2021
Committee: FIZ-AAA

Public Comment No. 2-NFPA 270-2021 [Section No. E.1.2.1]

E.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM D2843, *Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics*, 2019.

ASTM D4100, *Standard Test Method for Gravimetric Determination of Smoke Particulates from Combustion of Plastic Materials*, 1982, 1989 e1 (withdrawn 1997).

ASTM D5424, *Standard Test Method For Smoke Obscuration of Insulating Materials Contained in Electrical or Optical Fiber Cables When Burning in a Vertical Cable Tray Configuration,* 2018.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

ASTM E603, *Standard Guide for Room Fire Experiments*, 2017.

ASTM E662, *Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials*, ~~2020~~ 2021a .

ASTM E906/E906M, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using a Thermopile Method*, 2017.

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, 2017.

ASTM E1474, *Standard Test Method for Determining the Heat Release Rate of Upholstered Furniture and Mattress Components or Composites Using a Bench Scale Oxygen Consumption Calorimeter*, 2020a.

ASTM E1537, *Standard Test Method for Fire Testing of Upholstered Furniture*, 2016.

ASTM E1590, *Standard Test Method for Fire Testing of Mattresses*, 2017.

ASTM E1995, *Standard Test Method for Measurement of Smoke Obscuration Using a Conical Radiant Source in a Single Closed Chamber, With the Test Specimen Oriented Horizontally*, 2020.

Statement of Problem and Substantiation for Public Comment

updates

Related Item

• fr4

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
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City:
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Submittal Date: Mon Dec 27 20:06:04 EST 2021

Committee: FIZ-AAA

Public Comment No. 1-NFPA 274-2021 [Section No. D.1.2.1]

D.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

Statement of Problem and Substantiation for Public Comment

update

Related Item

• pi1

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Dec 29 18:59:55 EST 2021
Committee: FIZ-AAA

Public Comment No. 2-NFPA 286-2021 [New Section after 5.11]

5.12 Bathroom Partition Systems

5.12.1 Base Wall Assembly. The base wall assembly shall comply with 5.12.1.

5.12.1.1 The base wall assembly shall be constructed of stud framed construction.

5.12.1.2 The maximum stud spacing shall be 16 inches on center.

5.12.2 Specimen Mounting. The panels shall be fastened to remain in place during the test in accordance with Figure 5.12.2.

5.12.2.1 The width and height of the panel tested shall be the full standard product width and height.

5.12.2.2 Panels shall be mounted for the full height of all three walls, covering the entire area of the three walls.

5.12.2.3 Where the standard panel height does not cover the full height of the wall the full panel shall be the lower panel on the wall.

5.12.2.4 Panels shall be mounted on the ceiling if the panels are intended to be installed on ceilings in actual installations.

5.12.2.5 The panels shall be mechanically fastened along the vertical edges in accordance with the manufacturer's installation instructions.

5.12.2.6 The panels shall be attached to the base wall using 6 inch (150 mm) 20 gauge steel studs.

5.12.3 Specimen Color. The darkest color panel available shall be tested.

Additional Proposed Changes

File Name	Description	Approved
NFPA_286_Figure_5.12.2.pdf	Figure 5.12.2	

Statement of Problem and Substantiation for Public Comment

Committee Input No. 4 was created by the Committee to address testing bathroom partitions systems using NFPA 286. The Public Comment is based upon CI 4 with the following revisions:
1. The section was moved to 5.12 to be located after the existing section on Specimen Installation.
2. A figure has been added to show the installation details.
3. A new paragraph 5.12.2.6 was added indicating how to attach the bathroom partition systems to the base wall assembly.

While most test specimens are attached directly to the base wall assembly, bathroom partition panels should not be attached directly to the base wall for the following reasons:

1. In the end use configuration, bathroom partitions are often not mounted directly to walls.
2. In the end use configuration, bathroom partitions can be mounted perpendicular to the supporting wall.
3. During a fire, both sides of the a bathroom partition can be exposed to the flame and heat and provide fuel for the fire.

Therefore, locating the test panels some distance away from the base wall is consistent with actual end use configuration. However, it is important that the test panels remain in place during the fire test as noted in the proposal.

Related Item

• CI-4

Submitter Information Verification

Submitter Full Name: William Koffel
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Affiliation: Bobrick
Street Address:
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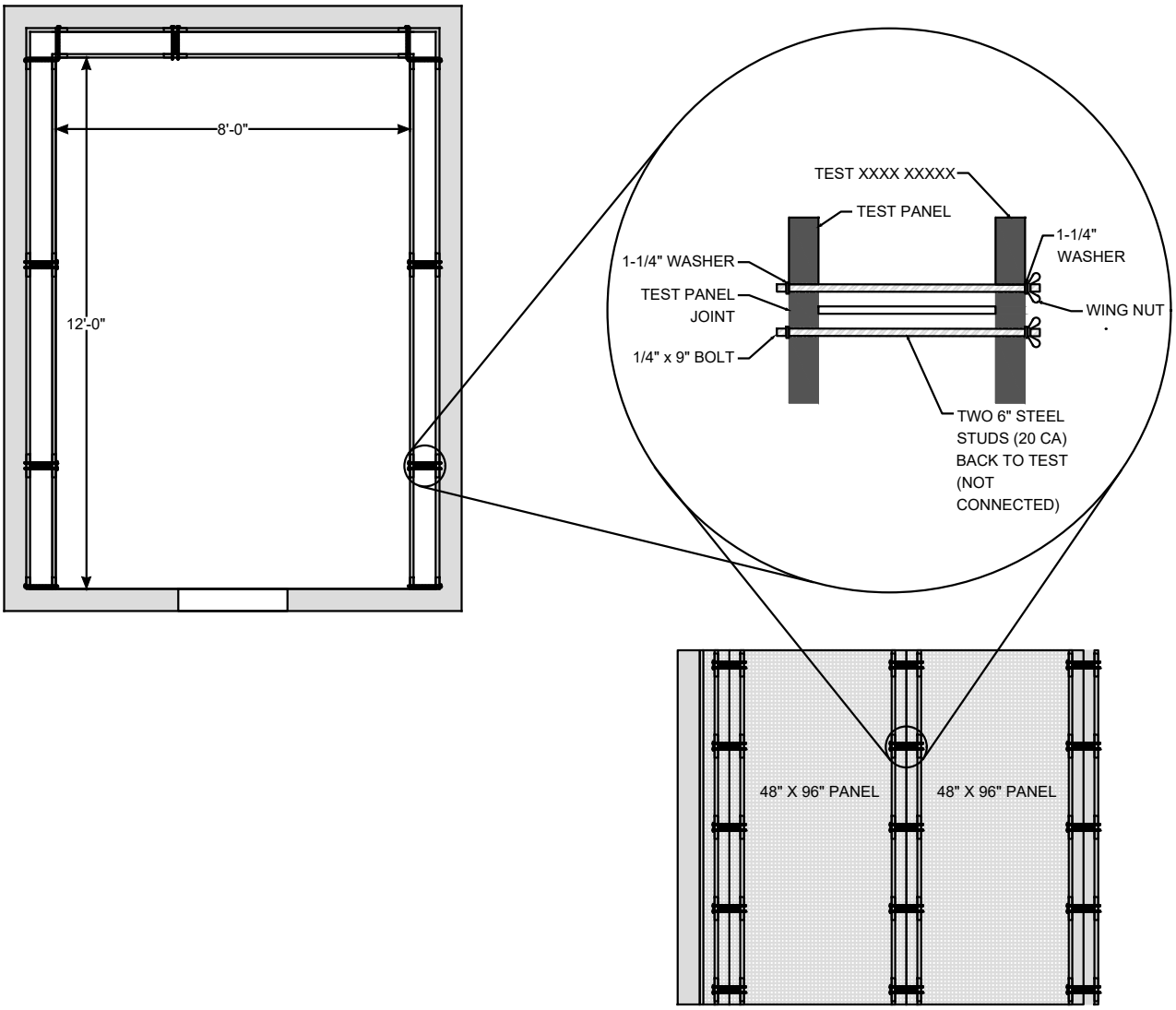
Submittal Date: Thu Dec 30 08:54:38 EST 2021
Committee: FIZ-AAA


8'-0"
12'-0"
TEST XXXX XXXXX
TEST PANEL
1-1/4" WASHER
TEST PANEL JOINT
1/4" x 9" BOLT
1-1/4" WASHER
WING NUT
TWO 6" STEEL STUDS (20 CA) BACK TO TEST (NOT CONNECTED)
48" X 96" PANEL
48" X 96" PANEL

Public Comment No. 1-NFPA 286-2021 [Section No. D.1.2.1]

D.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

ASTM E800, *Standard Guide for Measurement of Gases Present or Generated During Fires*, 2020.

ASTM E2573, *Standard Practice for Specimen Preparation and Mounting of Site-Fabricated Stretch Systems to Assess Surface Burning Characteristics*, 2019.

ASTM Institute for Standards Research, “Interlaboratory Test Program: Proposed ASTM Standard Method for Room Fire Test of Wall and Ceiling Materials and Assemblies,” International Fire Standards Project Report, PCN: 33-000012-31, October 1994.

Statement of Problem and Substantiation for Public Comment

update

Related Item

• fr7

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Mon Dec 27 20:44:23 EST 2021
Committee: FIZ-AAA

Public Comment No. 2-NFPA 289-2021 [Section No. 5.5.1]

5.5.1– *

To investigate the effect of fire-retardant treatments on natural Christmas trees, the procedure to be followed shall be as stated in 5.5.2 through 5.5.5, after conditioning in accordance with 5.5.6.

* ASTM E3082 (Standard Test Methods for Determining the Effectiveness of Fire Retardant Treatments for Natural Christmas Trees) is an alternate fire test method to assess the effect of fire-retardant treatments on natural Christmas trees.

(Also add ASTM E3082, (Standard Test Methods for Determining the Effectiveness of Fire Retardant Treatments for Natural Christmas Trees), 2020 edition, into the section on informational standards).

Statement of Problem and Substantiation for Public Comment

This adds relevant annex information.

Related Item

• fr3

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed Dec 29 19:13:34 EST 2021
Committee: FIZ-AAA

Public Comment No. 1-NFPA 289-2021 [Section No. C.1.2.2]

C.1.2.2 ICC Publications.

International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001.

International Building Code (IBC),~~2021~~ 2024 .

International Fire Code (IFC),~~2021~~ 2024 .

Statement of Problem and Substantiation for Public Comment

update - the relevant sections of IBC and IFC 20224 are complete.

Related Item

• fr3

Submitter Information Verification

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Submittal Date: Wed Dec 29 19:09:57 EST 2021
Committee: FIZ-AAA

Public Comment No. 1-NFPA 701-2021 [Section No. 2.3.2]

2.3.2 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM D5025, *Standard Specification for Laboratory Burner Used for Small-Scale Burning Tests on Plastic Materials*, 2020a.

ASTM D5207, *Standard Practice for Confirmation of 20-mm (50-W) and 125-mm (500-W) Test Flames for Small-Scale Burning Tests on Plastic Materials*, 2020.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

Statement of Problem and Substantiation for Public Comment

update

Related Item

• fr14

Submitter Information Verification

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Submittal Date: Mon Dec 27 20:29:12 EST 2021
Committee: FIZ-AAA

Public Comment No. 2-NFPA 701-2021 [Section No. E.1.2.1]

E.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM D3659, *Standard Test Method for Flammability of Apparel Fabrics by Semi-Restraint Method*, 1980 (1993 e1; withdrawn 2001).

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2020~~ 2021a .

ASTM F1506, *Standard Performance Specification for Flame Resistant and Electric Arc Rated Protective Clothing Worn by Workers Exposed to Flames and Electric Arcs*, 2020a.

ASTM F1891, *Standard Specification for Arc and Flame Resistant Rainwear*, 2019.

Statement of Problem and Substantiation for Public Comment

update

Related Item

• fr15

Submitter Information Verification

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Submittal Date: Mon Dec 27 20:30:21 EST 2021
Committee: FIZ-AAA

Public Comment No. 1-NFPA 705-2021 [Chapter 2]

Chapter 2 Referenced Publications

2.1 General.

The documents or portions thereof listed in this chapter are referenced within this recommended practice and should be considered part of the recommendations of this document.

2.2 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 265, *Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Walls,* 2023 edition.

NFPA 286, *Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth,* 2023 edition.

NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films,* 2023 edition.

2.3 Other Publications.

2.3.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2016.~~ 2021a

2.3.2 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Recommendations Sections. (Reserved)

Statement of Problem and Substantiation for Public Comment

update

Related Item

• fr1

Submitter Information Verification

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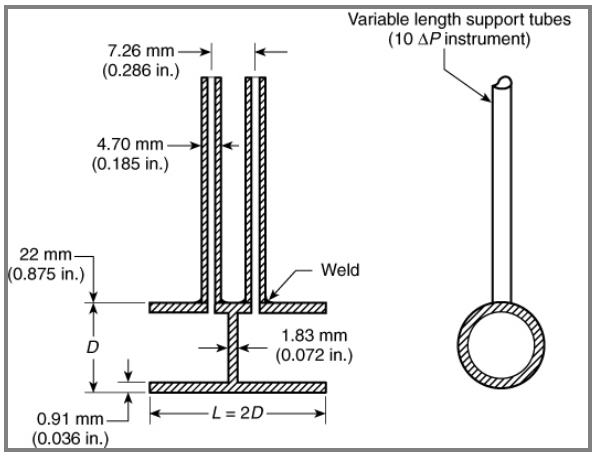
Submittal Date: Wed Dec 29 17:29:04 EST 2021
Committee: FIZ-AAA

Committee Input No. 6-NFPA 265-2021 [Section No. 7.3.2.1]

7.3.2.1

A typical probe, shown in Figure 7.3.2.1, shall consist of a short stainless steel cylinder ~~that is 44 mm (1.75 in.) long and has a 22 mm (0.875 in.) inside diameter~~ with length L and inside diameter D, with a solid diaphragm in the center.

Figure 7.3.2.1 Bidirectional Probe.



((Revise figure to remove all dimensions except for labels D and L=2D. Move D dimension lines to inside diameter.)

Submitter Information Verification

Committee: FIZ-AAA

Submittal Date: Fri Mar 19 08:29:51 EDT 2021

Committee Statement

Committee Statement: The current figure contains dimensions that are not found in the code text. The most important part of the figure is to show that L=2D.

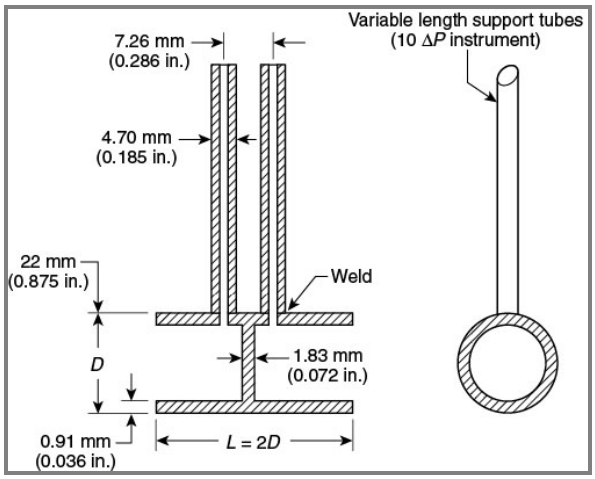
Response Message: CI-6-NFPA 265-2021

Committee Input No. 3-NFPA 274-2021 [Section No. 5.4.3]

5.4.3

A typical probe, shown in Figure 5.4.3, shall consist of a short, stainless steel cylinder ~~that is 44 mm (1.75 in.) long and has a 22 mm (0.875 in.) inside diameter~~ of length L with an inside diameter D, with a solid diaphragm in the center.

Figure 5.4.3 Bidirectional Probe.



(Revise figure to remove all dimensions except for labels D and L=2D. Move D dimension lines to inside diameter.)

Submitter Information Verification

Committee: FIZ-AAA

Submittal Date: Mon Mar 08 07:43:06 EST 2021

Committee Statement

Committee Statement: The current figure contains dimensions that are not found in the code text. The most important part of the figure is to show that L=2D.

Response Message: CI-3-NFPA 274-2021

Committee Input No. 4-NFPA 286-2021 [Detail]

5.11 Bathroom Partition Systems

5.11.1Base Wall Assembly. The base wall assembly shall comply with 5.11.1.

5.11.1.2 he base wall assembly shall be constructed of stud framed construction.

5.11.1.3 The maximum stud spacing shall be 16 inches on center.

5.11.2 Specimen Mounting. The panels shall be fastened to remain in place during the test.

5.11.2.1 The width and height of the panel tested shall be the full standard product width and height.

5.11.2.2 Panels shall be mounted for the full height of all three walls, covering the entire area of the three walls.

5.11.2.3 Where the standard panel height does not cover the full height of the wall the full panel shall be the lower panel on the wall.

5.11.2.4 Panels shall be mounted on the ceiling only where the panels are intended to be installed on ceilings in actual installations.

5.11.2.5 The panels shall be mechanically fastened along the vertical edges in accordance with the manufacturer's installation instructions.

5.11.3 Specimen Color. The darkest color panel available shall be tested.

Submitter Information Verification

Committee:

Submittal Date: Mon Mar 08 08:10:21 EST 2021

Committee Statement

Committee Statement: Proposed new criteria for bathroom partitions.

Response Message: CI-4-NFPA 286-2021

Committee Input No. 5-NFPA 286-2021 [Detail]

Submitter Information Verification

Committee:

Submittal Date: Mon Mar 08 08:15:56 EST 2021

Committee Statement

Committee Statement:	Proposed new criteria for reflective insulation, radiant barriers and vinyl stretch ceiling materials.
Response Message:	CI-5-NFPA 286-2021

5.11 Reflective Insulation, Radiant Barrier and Vinyl Stretch Ceiling Materials

5.11.1 Mechanically attached reflective insulation or vinyl stretch materials.

5.11.1.1 Specimens shall be mechanically attached to steel or aluminum test frames made from 2 by 2 by 3/16 in. (51 by 51 by 5 mm) aluminum or steel angles or equivalent.

5.11.1.2 No screening or netting shall be attached to the opening of the frames where the test specimen is attached.

5.11.2 Radiant barrier materials or adhesively attached reflective insulation materials.

5.11.2.1 Specimens shall be adhesively attached to a substrate.

5.11.2.2 The substrate shall be representative of that used in actual field installation, including the adhesive to be used.

5.11.2.3 The substrate shall consist of flat sheets.

5.11.3 If the manufacturer recommended installation instructions, include installation of the reflective, insulation material or sheet radiant barrier material either by mechanical attachment or by adhesive attachment, the material shall be tested using both the specimen preparation and mounting procedure outlined in 5.11.1 and the one outlined in 5.11.2.

5.11.4 For materials that are asymmetrical in cross-section, each side of the material shall be tested separately.

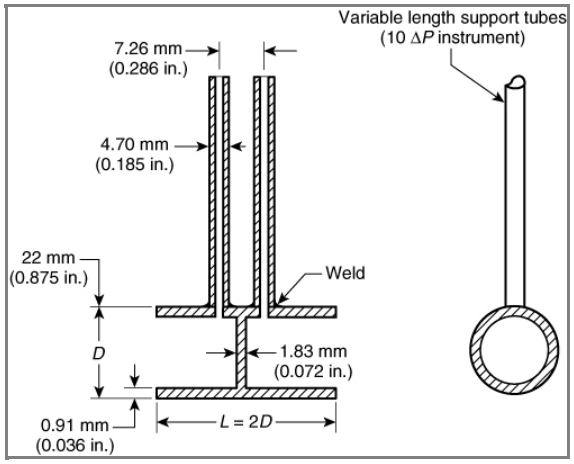
Also, add a new section G.1.2.2 (and renumber existing G.1.2.2 as G.1.2.3) entitled ISO/IEC Publications, (Available from International Organization for Standardization (ISO), ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, http://www.iso.org) which contains ISO/IEC17011 "Conformity assessment—General Requirements for accreditation bodies accrediting conformity assessment
bodies" (2017) and ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories" (2017

Committee Input No. 3-NFPA 286-2021 [Section No. 7.3.2]

7.3.2* Bidirectional Probe.

A bidirectional probe, as shown in Figure 7.3.2, or an equivalent measuring system shall be used to measure gas velocity in the duct.

Figure 7.3.2 Bidirectional Probe.



(Revise figure to remove all dimensions except for labels D and L=2D. Move D dimension lines to inside diameter.)

7.3.2.1

The probe shall consist of a short, stainless steel cylinder ~~that is 44 mm ± 1 mm (1.75 in. ± 0.0625 in.) long and of 22 mm ± 1 mm (0.875 in. ± 0.0625 in.) inside diameter~~ of length L with an inside diameter D, with a solid diaphragm in the center.

7.3.2.2

The pressure taps on either side of the diaphragm shall support the probe.

7.3.2.3

The axis of the probe shall run along the centerline of the duct 3.35 m ± 0.1 m (11 ft ± 4 in.), downstream from the entrance.

7.3.2.4*

The pressure taps specified in 7.3.2.2 shall be connected to a pressure transducer that is able to resolve pressure differences of 0.25 Pa (0.001 psi water column).

7.3.2.5

The response time to a stepwise change of the duct flow rate shall not exceed 5 seconds to reach 90 percent of the final value.

Submitter Information Verification

Committee: FIZ-AAA

Submittal Date: Mon Mar 08 07:47:32 EST 2021

Committee Statement

Committee Statement:	The current figure contains dimensions that are not found in the code text. The most important part of the figure is to show that L=2D.
Response Message:	CI-3-NFPA 286-2021

Committee Input No. 2-NFPA 289-2021 [Section No. 7.4.2]

7.4.2* Velocity Measurement.

7.4.2.1 General.

7.4.2.1.1

A bidirectional probe or an equivalent measuring system shall be used to measure gas velocity in the duct.

7.4.2.1.2

A typical probe, shown in figure 7.4.2.1.2 shall consist of a stainless steel cylinder ~~that is 44 mm ± 1 mm (1.75 in. ± 0.040 in.) long and 22 mm ± 1 mm (0.875 in. ± 0.040 in.) inside diameter~~ of length L with an inside diameter D, with a solid diaphragm in the center.

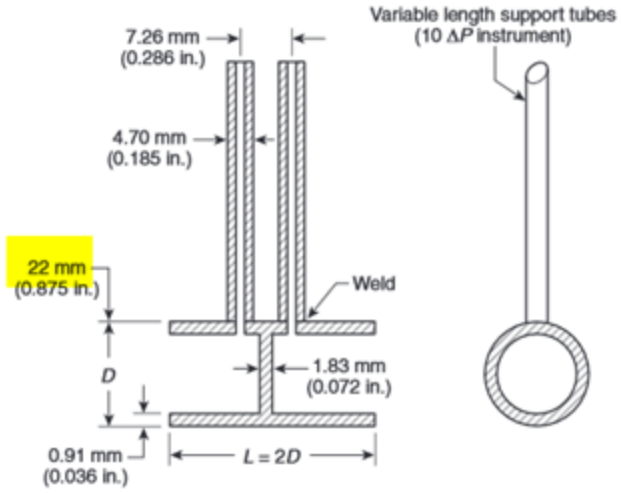


Figure 5.4.3 Bidirectional Probe.

(Revise figure to remove all dimensions except for labels D and L=2D. Move D dimension lines to inside diameter.)

7.4.2.1.3

The pressure taps on either side of the diaphragm shall support the probe.

7.4.2.1.4

The axis of the probe shall run along the centerline of the duct 3.35 m ± 0.1 m (11 ft ± 4 in.) (or at least 8 duct diameters for larger-diameter ducts) downstream from the entrance.

7.4.2.1.5

Alternative probe locations shall be permitted to be used if the locations have been shown to produce equivalent results.

7.4.2.1.6

Alternative velocity probe locations shall have demonstrated equivalency by meeting the calibration requirements outlined in Chapter 8.

7.4.2.2* Pressure Transducer.

7.4.2.2.1

The taps shall be connected to a pressure transducer that is able to resolve pressure differences of 0.25 Pa (0.001 in. H_2O).

7.4.2.2.2

The response time to a stepwise change of the duct flow rate shall not exceed 5 seconds to reach 90 percent of the final value.

7.4.2.3 Thermocouples.

7.4.2.3.1

One pair of thermocouples shall be placed 3.40 m ± 0.1 m (11 ft 2 in. ± 4 in.) (or at least 8 duct diameters for larger-diameter ducts) downstream from the entrance to the horizontal duct and 50 mm ± 5 mm (2.0 in. ± 0.2 in.) downstream from the axis of the probe.

7.4.2.3.2

The pair of thermocouples shall straddle the center of the duct and be separated from each other by 50 mm ± 5 mm (2 in. ± 0.2 in.).

7.4.2.3.3

Alternative thermocouple locations shall be permitted to be used if the locations have been shown to produce equivalent results.

7.4.2.3.4

Alternative thermocouple locations shall have demonstrated equivalency by meeting the calibration requirements outlined in Chapter 8.

Submitter Information Verification

Committee: FIZ-AAA

Submittal Date: Mon Mar 08 07:51:12 EST 2021

Committee Statement

Committee Statement: The current figure contains dimensions that are not found in the code text. The most important part of the figure is to show that L=2D.

Response Message: CI-2-NFPA 289-2021