



Public Comment No. 10-NFPA 130-2021 [Section No. 2.3.4]

2.3.4 ASTM Publications.

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

ASTM C1166, *Standard Test Method for Flame Propagation of Dense and Cellular ~~Elastometric~~ Elastomeric Gaskets and Accessories*, 2006 (2016).

ASTM D2724, *Standard Test Methods for Bonded, Fused, and Laminated Apparel Fabrics*, 2019.

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

ASTM D3675, *Standard Test Method for Surface Flammability of Flexible Cellular Materials Using a Radiant Heat Energy Source*, 2019 2021 .

ASTM D7568, *Standard Specification for Polyethylene-Based Structural-Grade Plastic Lumber for Outdoor Applications*, 2017.

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

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

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

ASTM E162, *Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source*, 2016.

ASTM E648, *Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source*, 2019a e1.

ASTM E662, *Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials*, 2019 2021 .

ASTM E814, *Standard Test Method for Fire Tests of Penetration Firestop Systems*, 2013a (2017).

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

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

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

ASTM E2061, *Standard Guide for Fire Hazard Assessment of Rail Transportation Vehicles*, 2020.

ASTM E2652, *Standard Test Method for Assessing Combustibility of Materials Using a Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750°C*, 2018.

Statement of Problem and Substantiation for Public Comment

updates

Related Item

- PI48

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 20 18:23:16 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-34-NFPA 130-2021](#)

Statement: Reference Updates



Public Comment No. 12-NFPA 130-2021 [Section No. 3.3.56]

3.3.56 Station.

A ~~building designated~~ structure designated for the purpose of loading and unloading passengers, including patron service areas and ancillary spaces.

3.3.56.1* Enclosed Station.

A station or portion thereof that does not meet the definition of an open station.

3.3.56.2* Open Station.

A station that is constructed such that it is directly open to the atmosphere and smoke and heat are allowed to disperse directly into the atmosphere.

Statement of Problem and Substantiation for Public Comment

This revises from "building" to "structure" because open stations are not buildings. I agree that describing them as "a place" is not sufficiently descriptive.

The NFPA Glossary of terms defines building and structure as follows, and the committee might want to add these definitions.

Building. A structure, usually enclosed by walls and a roof, constructed to provide support or shelter for an intended occupancy.

Structure. That which is built or constructed and limited to buildings and non-building structures as defined herein.

Related Item

- FR72

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 20 21:18:46 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected

Resolution: The term building implies a structure that includes an occupancy which is the intent in the NFPA 130 context. The term 'stop' was added in this cycle to address platforms that are not buildings.



Public Comment No. 21-NFPA 130-2021 [Section No. 5.1.2]

5.1.2* – Relationship to Local Codes.

5.1.2.1*

The requirements in this chapter shall supplement the requirements of the locally applicable codes for the design and construction of stations.

5.1.2.2

Where the requirements in this chapter do not address a specific feature of fire protection or life safety, the requirements of the local codes shall be considered applicable.

Statement of Problem and Substantiation for Public Comment

This PC simply deletes the asterisk that leads to an annex section proposed to be deleted by PC20.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 20-NFPA 130-2021 [Section No. A.5.1.2.1]	

Related Item

- FR1

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 21 13:07:44 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-2-NFPA 130-2021
Statement: Annex is deleted since a standard cannot instruct what the code hierarchy is, or what governs for a specific project or the specific duties of a fire engineer



Public Comment No. 14-NFPA 130-2021 [Section No. 5.2.4.3]

5.2.4.3 Ancillary Spaces.

Fire resistance ratings of separations between ancillary occupancies shall be established as required by NFPA 101 and in accordance with ASTM E119 ~~and UL 263~~ or UL 263 .

Statement of Problem and Substantiation for Public Comment

Testing should be in accordance with ASTM E119 or UL 263 and not both. They are the same test.

Related Item

- FR58

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 20 21:40:09 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Accepted

Resolution: SR-3-NFPA 130-2021

Statement: Section corrected as testing should be in accordance with ASTM E119 or UL 263 and not both. They are the same test.



Public Comment No. 13-NFPA 130-2021 [Section No. 5.2.4.4]

5.2.4.4* Agent and Information Booths.

Agent or information booths shall comply with the following:

- (1) They shall be constructed of noncombustible materials.
- (2) ~~Booths less than 20 m² (200 ft²) in area that are used only as agent and information booths shall not~~ They shall comply with the fire separation requirements of Section 5.2.4.3.
- (3) Booths shall be required to be fire-separated from public station areas unless the booths are used only as agent and information booths and the booth area does not exceed 200 square feet (18.6 square meters).

Statement of Problem and Substantiation for Public Comment

This revision clarifies the language and the unit conversion. It also adds the requirement (already contained above and implicit) that the booths must be fire-separated as well as being constructed of noncombustible materials.

However, the issue still remains that no justification has been provided for the 200 square feet area. An alternate comment (PC15) eliminates the area exception.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 15-NFPA 130-2021 [Section No. 5.2.4.4]	
<u>Related Item</u>	
• fr27	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submission Date: Tue Apr 20 21:27:38 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-4-NFPA 130-2021
Statement: The first revision change to introduce an indication of size is removed from the text and relocated to Annex A in order to provide guidance while allowing flexibility in applying the size limitations for such units.



Public Comment No. 15-NFPA 130-2021 [Section No. 5.2.4.4]

5.2.4.4* Agent and Information Booths.

Agent or information booths shall comply with the following:

- (1) They shall be constructed of noncombustible materials.
- (2) ~~Booths less than 20 m² (200 ft²) in area that are used only as agent and information booths shall~~ They shall comply with the fire separation requirements of Section 5.2.4.3.
- (3) ~~They shall not be required to be fire - separated from public station areas areas if they are used only as agent or information booths .~~

Statement of Problem and Substantiation for Public Comment

This PC differs from PC 13 in that it eliminates the unjustified 200 square feet area exclusion and returns to the earlier language, except that it adds a clarification that the booths have to be fire separated in accordance with an earlier section, which is implicit.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 13-NFPA 130-2021 [Section No. 5.2.4.4]	
<u>Related Item</u>	
• fr27	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 20 21:43:26 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-4-NFPA 130-2021
Statement: The first revision change to introduce an indication of size is removed from the text and relocated to Annex A in order to provide guidance while allowing flexibility in applying the size limitations for such units.



Public Comment No. 23-NFPA 130-2021 [Section No. 5.2.6]

5.2.6 Exposed- Insulation.

5.2.6.1

Combustible Insulation in public circulation areas shall be protected by a thermal barrier complying with NFPA 275 or by 12.7 mm ($\frac{1}{2}$ in.) gypsum board or 12.7 mm ($\frac{1}{2}$ in.) concrete.

5.2.6.2

Where thermal barriers are required by 5.2.6.1, penetrations shall be firestopped in accordance with ASTM E814.

5.2.6.3

Insulation applied to pipes or ducts shall be listed and labeled and shall exhibit a flame spread index not exceeding 25 and a smoke developed index not exceeding 450 when tested in accordance with ASTM E84 or UL 723.

5.2.6.4

Spray foam insulation applied to ceilings in public circulation areas shall be protected by one of the following:

(1) Gypsum board at least $\frac{1}{2}$ inch (12.7 mm) thick.

(2) Cement-based millboard at least $\frac{1}{4}$ inch (6.4 mm) thick.

(3) Batts or blankets of mineral wool or of mineral fiber, installed in such a manner as to be securely retained in place.

(4) Another approved material.

5.2.6.5

Insulation in plenums, other than foam plastic insulation, shall be listed and labeled and shall exhibit a flame spread index not exceeding 25 and a smoke developed index not exceeding 450 when tested in accordance with ASTM E84 or UL 723.

5.2.6.6

Foam plastic insulation in plenums shall be listed and labeled and shall exhibit a flame spread index of 25 or less and a smoke-developed index of 50 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, and shall be tested in accordance with NFPA 286 and meet the acceptance criteria of Section 5.2.5.1(3), except as required by 5.2.6.6.1 or 5.2.6.6.2.

5.2.6.6.1. Foam plastic in plenums shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by a thermal barrier complying with NFPA 275.

5.2.6.6.2 Foam plastic in plenums shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by corrosion-resistant steel having a base metal thickness of not less than 0.0160 inch (0.4 mm).

Statement of Problem and Substantiation for Public Comment

Section 5.2.6 covers insulation on walls but stations also include spray foam insulation applied to ceilings and insulation applied to pipes or ducts, which are not addressed by the NFPA 130 standard at present. For those applications it is worth going to the building code for protection of spray foam insulation (Section 718.2.1) and for protection in plenums (section 2603.7, similar to the mechanical code (IMC) requirements for protection of insulation for ducts and pipes.

The building code (IBC) addresses fireblocking materials in section 718 and it includes a variety of options, several of which are wood products, which are typically not allowed as exposed materials in stations covered by NFPA 130. This proposal includes simply those options that are among the types of materials that NFPA 130 uses in stations.

The mechanical code (IMC) discusses coverings and linings (meaning insulation) for ducts and contains requirements that the insulation must have a flame spread index of 25 and a smoke developed index of 50 when tested to ASTM E84 and needs to be tested as a system (which the IMC explains that it means that it must be mounted in accordance with ASTM E2231). The IMC also requires testing to ASTM C411 at the temperature to be used in practice.

The IBC building code (Section 2603.7) talks about insulation in plenums and offers 4 options: 25/50 flame spread index/smoke developed index, 75/450 flame spread index/smoke developed index and separation by a thermal barrier or by corrosion resistant steel and 75/450 flame spread index/smoke developed index and separation by concrete. For simplicity, the proposed requirements eliminate testing to ASTM C411 because the temperature in stations is not elevated (although the temperature inside the ducts or pipes may be elevated) and eliminates the separation by concrete, which is not cost effective for pipes or hanging ducts or pipes. The proposal also retains the 450 smoke requirements.

IBC language follows:

718.2.1 Fireblocking materials. Fireblocking shall consist of the following materials:

1. Two-inch (51 mm) nominal lumber.
2. Two thicknesses of 1-inch (25 mm) nominal lumber with broken lap joints.
3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels.
4. One thickness of 0.75-inch (19.1 mm) particleboard with joints backed by 0.75-inch (19 mm) particleboard.
5. One-half-inch (12.7 mm) gypsum board.
6. One-fourth-inch (6.4 mm) cement-based millboard.
7. Batts or blankets of mineral wool, mineral fiber or other approved materials installed in such a manner as to be securely retained in place.
8. Cellulose insulation tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.
9. Mass timber complying with Section 2304.11.

2603.7 Foam plastic in plenums as interior finish or interior trim. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 25 or less and a smoke-developed index of 50 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, and shall be tested in accordance with NFPA 286 and meet the acceptance criteria of Section 803.1.1. As an alternative to testing to NFPA 286, the foam plastic shall be approved based on tests conducted in accordance with Section 2603.9.

Exceptions:

1. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by a thermal barrier complying with Section 2603.4.
2. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by corrosion-resistant steel having a base metal thickness of not less than 0.0160 inch (0.4 mm).
3. Foam plastic in plenums used as interior wall or ceiling finish, or interior trim, shall exhibit a flame spread index of 75 or less and a smoke-developed index of 450 or less when tested in accordance

with ASTM E84 or UL 723 at the maximum thickness and density intended for use, where it is separated from the airflow in the plenum by not less than a 1-inch (25 mm) thickness of masonry or concrete.

IMC language follows:

604.3 Coverings and linings. Duct coverings and linings, including adhesives where used, shall have a flame spread index not more than 25 and a smoke-developed index not more than 50, when tested in accordance with ASTM E84 or UL 723, using the specimen preparation and mounting procedures of ASTM E2231. Duct coverings and linings shall not flame, glow, smolder or smoke when tested in accordance with ASTM C411 at the temperature to which they are exposed in service. The test temperature shall not fall below 250°F (121°C). Coverings and linings shall be listed and labeled.

Related Item

- CI46

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 27 12:58:04 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-9-NFPA 130-2021](#)

Statement: Building codes generally permit the use of fire blocking materials that are not appropriate for use in stations therefore additional requirements for insulation was added. The committee chose not to address plenums because they are covered appropriately by the mechanical and building codes.



Public Comment No. 30-NFPA 130-2021 [Section No. 5.3.1.3]

5.3.1.3* Passenger Rail Stations.

For passenger rail stations, the following shall apply to design of the means of egress:

(1) Where a station platform is separated from the station building as described in 5.1.1.1, the platform occupants shall be permitted to egress through the station building in accordance with the provisions of 5.3.9.

(2) The provisions in Section 5.3.3.7 for modifying evacuation times and travel distances shall apply where compliance with the requirements of Section 5.3.3 is not achievable due to system operations and configuration.

Statement of Problem and Substantiation for Public Comment

The revisions are intended to address problems that are often encountered in applying Chapter 5 to commuter and passenger rail. Although Section 5.3.3.7 is an existing clause within the standard, AJHs (and sometimes owners) are reluctant to accept variations from the prescriptive requirements in Section 5.3.3 and the proposed language provides emphasis that such variations are permitted with appropriate engineering analysis. Please refer also to proposed revisions to A.5.3.1.3.

Related Item

- First Revision No. 82-NFPA 130-2020 [New Section after 5.3.1.2]

Submitter Information Verification

Submitter Full Name: Katherine Fagerlund

Organization: EKF Consulting

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 15:36:15 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-21-NFPA 130-2021

Statement: The First Revision language regarding passenger rail was removed due to concerns that it did not adequately address existing passenger rail station configurations. A task group is planned to consider revisions for future editions.



Public Comment No. 41-NFPA 130-2021 [Section No. 6.2.5.1]

6.2.5.1

Where combustible components not specifically addressed in this standard are installed in an enclosed trainway, a fire hazard analysis as described in 6.2.5.2 and 6.2.5.3 shall be conducted to ensure that the level of occupant fire safety is not affected by the trainway contents.

Statement of Problem and Substantiation for Public Comment

Raised for consideration. While the changes appear to have addressed the enclosed and open/unenclosed issue, there are potential cross links to other Chapter 6 sections (e.g. 6.2.6 that requires non-combustible materials for walkways) that potentially conflict. There are specific examples where composite materials are used for walkways, that may not meet the non-combustible definition but have acceptable fire performance in an at grade or elevated open configuration. Suggest closer inspection by the committee to address potential gaps and the intended use of the hazard analysis provisions.

Related Item

- FR-33

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:50:53 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-11-NFPA 130-2021

Statement: Section updated to clarify that, prior to standard's re-organization in 2014, the original intent was that the non combustibility requirement pertains to underground trainways.



Public Comment No. 4-NFPA 130-2021 [Sections 6.2.8.2, 6.2.8.3]

Sections 6.2.8.2, 6.2.8.3

6.2.8.2

Rail ties used outdoors at switch or crossover locations shall be made of materials ~~such as~~ that comply with one of the following:

- (1) Noncombustible materials in accordance with 4.6.1
- (2) Fire-retardant-treated wood in accordance with NFPA 703
- (3) Pressure-treated wood materials that exhibit a flame spread index of not more than 75 when tested in accordance with ASTM E84 or UL 723
- (4) Plastic composite materials that comply with the requirements of ASTM D7568 and exhibit a flame spread index of not more than 75 in accordance with ASTM E84 or UL 723
- (5) Limited-combustible materials in accordance with 4.6.2
- (6) Wood encased in concrete such that only the top surface is exposed

6.2.8.3

Rail ties used outdoors at locations other than switch or crossover locations shall be made of materials ~~such as~~ that comply with one of the following:

- (1) Materials that comply with 6.2.8.2
- (2) Pressure-treated wood materials
- (3) Plastic composite materials that comply with the requirements of ASTM D7568

Statement of Problem and Substantiation for Public Comment

This public comment simply makes the language fully enforceable. The first revision is stating that the materials shall comply with requirements "such as" the following, which leaves open the possibility of complying with something else. The proposed language says they "shall" comply with one of the following, which is typical NFPA language.

Related Item

- fr36

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 13 19:31:18 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action:	Rejected but see related SR
Resolution:	SR-12-NFPA 130-2021
Statement:	Editorial correction to clarify that the material should meet one of the items in the list as opposed to the non mandatory "such as" statement.



Public Comment No. 35-NFPA 130-2021 [Sections 6.4.1.3, 6.4.1.4]

Sections 6.4.1.3, 6.4.1.4

6.4.1.3

~~Access to the elevated trainway shall be provided as follows: Access shall be from stations or mobile ladder equipment on the adjacent roadway.* Where the distance between points of access as described in 6.4.1.3 exceeds 762 m (2500 ft), additional provisions for access at intervals not exceeding that distance shall be provided.~~

6.4.1.4

~~Access to open-cut trainways shall be provided as follows: Access shall be from stations or roadways adjacent to the trainway.* Where the configuration of an open-cut trainway prevents or impedes access for firefighting, provisions shall be made to facilitate firefighter access to that section of trainway at intervals not exceeding 762 m (2500 ft).~~

Statement of Problem and Substantiation for Public Comment

Transit systems often extend beyond suburban areas to link communities through rural regions where compliance with prescriptive distances for access is impossible. Additionally, alternative means for access (such as high-rail vehicles) are not uncommon. Prescriptive distances for access located in the text of the standard has impeded the ability to negotiate reasonable solutions for system designers. Therefore, the proposal is to relocate prescriptive distances to Annex A language. However, regardless of any arbitrary prescribed distance, the AHJ in discussion with the fire life safety committee will determine the needs for access to surface and elevated portions of the guideway. Refer also to proposed revisions for A.6.4.1.3 and A.6.3.1.4.

Related Item

- First Revision No. 41-NFPA 130-2020 [Sections 6.4.1.2, 6.4.1.3, 6.4.1.4, 6.4.1.5, 6.4.1.6, 6.4.1...]

Submitter Information Verification

Submitter Full Name: Katherine Fagerlund

Organization: EKF Consulting

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:03:45 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-13-NFPA 130-2021

Statement: Statement on Main Body Sections:

The legacy 762 m (2500 ft) requirement was retained to facilitate enforcement in the absence of a true performance basis for establishing the interval distance. The need to respond to emergencies exists system-wide and the access provisions were consolidated and further clarified for fenced-off surface rail. Language for alternative approval was added to facilitate flexibility where constraints preclude compliance. Surface rail without dedicated fences was not further restricted due to the complexities of systems, particularly with passenger rail, that operate in range of potential geographical landscapes and remote regions.

Statement on Annex Sections:

The annex is updated to include potential considerations for stakeholders evaluating conditions where access points vary from 762 m. The additional information incorporates factors that may be relevant in substantiating a change in the access distance for portions of the system that may be less accessible or more remote due to geographical or other conditions.



Public Comment No. 5-NFPA 130-2021 [Section No. 7.5]

7.5 Testing.

7.5.1*

Equipment used for emergency ventilation (including fans, dampers, and airflow control devices) shall be designed and tested for the application and also approved in accordance with the requirements of a recognized standard for the ~~by the authority having jurisdiction in accordance with requirements applicable to the~~ type of equipment to be installed.

7.5.2*

The no-fire (or cold) airflows provided by the installed mechanical ventilation system shall be measured during commissioning to confirm that the airflows meet the requirements determined by the engineering analysis.

Statement of Problem and Substantiation for Public Comment

The rationale for the First Revision states that there is no applicable standard. Therefore the equipment must be designed and tested but also approved by the ahj. In the absence of an applicable standard, it is the ahj who must determine what applicable requirements need to be used.

Related Item

- fr50

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 13 19:39:55 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-14-NFPA 130-2021

Statement: The testing refers to factory testing as per the existing Annex language, and the main body is edited to make that clearer.

Factory testing criteria, procedures and results review are not typically the domain of the AHJ and are usually under the responsible design entity. The need to establish acceptable equipment performance in factory and before system testing is made clear. The existing Annex text is augmented to support the added main body text.



Public Comment No. 1-NFPA 130-2021 [Section No. 8.4.1 [Excluding any Sub-Sections]]

The test procedures and minimum performance for materials and assemblies shall be as detailed in Table 8.4.1.

Table 8.4.1 Fire Test Procedures and Performance Criteria for Materials and Assemblies

<u>Category</u>	<u>Function of Material</u>	<u>Test Method</u>	<u>Performance</u>	
			<u>Criteria</u>	
Cushioning	All individual flexible cushioning materials used in seat cushions, mattresses, mattress pads, armrests, crash pads, and grab rail padding ^{a-e a-e}	ASTM D3675	$I_s = 25$	
		-	ASTM E662	$D_s (1.5) = 100$
		-	-	$D_s (4.0) = 175$
Fabrics	Seat upholstery, mattress ticking and covers, curtains, draperies, window shades, and woven seat cushion	14 CFR 25, Appendix F, Part I (vertical test)	Flame time = 10 sec	Burn length = 6 in.
	suspensions ^{a-e a-c, f-h}	-	ASTM E662	$D_s (4.0) = 200$
Other vehicle components	Seat and mattress frames, wall and ceiling lining and panels, seat and toilet shrouds, toilet seats, trays and other tables, partitions, shelves, opaque windscreens, combustible signage, end caps, roof housings, articulation bellows, exterior shells, nonmetallic skirts, battery case material, and component boxes and covers ^{a, b, i-k}	ASTM E162	$I_s = 35$	
		-	ASTM E662	$D_s (1.5) = 100$
		-	-	$D_s (4.0) = 200$
		Thermal and acoustical insulation ^{a, b}	ASTM E162	$I_s = 25$
		-	ASTM E662	$D_s (4.0) = 100$
		HVAC ducting ^{a, b}	ASTM E162	$I_s = 25$
		-	ASTM E662	$D_s (4.0) = 100$
		Floor covering ^{b, k, l}	ASTM E648	CRF = 5 kW/m ²

<u>Category</u>	<u>Function of Material</u>	<u>Test Method</u>	<u>Performance</u>	
			<u>Criteria</u>	
			ASTM E662	D_s (1.5) = 100
			-	D_s (4.0) = 200
		Light diffusers, windows, and transparent plastic windscreens ^a , b, i	ASTM E162	$I_s = 100$
			ASTM E662	D_s (1.5) = 100
			-	D_s (4.0) = 200
		Adhesives and sealants ^{a, b, p}	ASTM E162	$I_s = 35$
			ASTM E662	D_s (1.5) = 100
			-	D_s (4.0) = 200
Elastomers ^{a, b, i, j}	Window gaskets, door nosings, intercar diaphragms, seat cushion suspension diaphragms, and roof mats	ASTM C1166	Flame propagation = 100 mm (4 in.)	
			ASTM E662	D_s (1.5) = 100
			-	D_s (4.0) = 200
Wire and cable	All	See 8.6.7.1.1.1 through 8.6.7.1.3.	See 8.6.7.1.1.1 through 8.6.7.1.3.	
Structural components ^m	Flooring, ⁿ other ^o	ASTM E119	Pass	

^aSee 8.4.1.1.^bSee 8.4.1.2.^cSee 8.4.1.3.^dSee 8.4.1.4.

^eSee 8.4.1.5.

^fSee 8.4.1.6.

^gSee 8.4.1.7.

^hSee 8.4.1.8.

ⁱSee 8.4.1.9.

^jSee 8.4.1.10.

^kSee 8.4.1.11.

^lSee 8.4.1.12.

^mSee 8.4.1.13.

ⁿSee 8.4.1.14.

^oSee 8.4.1.15.

^pSee 8.4.1.16.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
NFPA_Comment_on_Table_8.4.1_Lighting_Diffusers_1.pdf	Comment regarding lighting diffusers, Table 8.4.1	

Statement of Problem and Substantiation for Public Comment

Clarification of the requirement for flame dripping would resolve the apparent conflict between the Table 8.4.1 requirements and the ASTM E162 test method criteria.

Related Item

- Table 8.4.1

Submitter Information Verification

Submitter Full Name: John Gregory

Organization: Jacobs

Affiliation: NFPA member

Street Address:

City:

State:

Zip:

Submittal Date: Tue Mar 02 12:56:08 EST 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Accepted

Resolution: SR-16-NFPA 130-2021

Statement: Lighting diffusers should not exhibit any flaming running or flaming dripping therefore note "a" has been added to the relevant section in table 8.4.1 as this is required for reporting "Is" value in ASTM E162.



Public Comment No. 2-NFPA 130-2021 [Section No. 8.4.1.10]

8.4.1.10

Materials used to fabricate miscellaneous, discontinuous small parts (such as knobs, rollers, fasteners, clips, grommets, and small electrical parts) where the surface area of any individual small part is less than 100 cm² (16 in.²) in end use configuration and that will not contribute materially to fire growth in end use configuration shall comply with either 8.4.1.10.1 or 8.4.1.10.2.

8.4.1.10.1

The materials shall be exempt from flammability and smoke emission performance requirements, provided that an appropriate fire hazard analysis is conducted that addresses the location and quantity of the materials used and the vulnerability of the materials to ignition and contribution to flame spread.

8.4.1.10.2

The materials shall be tested in accordance with ASTM E1354, at an initial test heat flux of 50 kW/m² (4.4 Btu/sec·ft²) in the horizontal orientation with a retainer frame, and shall meet the performance criteria of a 180-second average heat release rate not exceeding 100 kW/m² (8.8 Btu/sec·ft²) and a test average smoke extinction area not exceeding 500 m²/kg (2441.2 ft²/lb).

Materials applicable to this section must be widely separated with few items used in the vehicle. Clusters of individual discontinuous small parts must be evaluated based upon the total weight and volume of the grouping.

Statement of Problem and Substantiation for Public Comment

In several instances, manufacturers have tried to use this exemption on small parts that are clustered into a single grouping. An example of this is an electrical terminal strip that uses small segments, assembled onto a single rail to form a large cluster of combustible material.

There should be a limit on the total weight and/or quantity per vehicle, and/or the total number of like items used in any single location.

Related Item

- Clarification

Submitter Information Verification

Submitter Full Name: John Gregory

Organization: Jacobs

Street Address:

City:

State:

Zip:

Submittal Date: Fri Mar 05 15:57:31 EST 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-18-NFPA 130-2021

Statement: The committee considers that items very close to each other such as in the same compartment or enclosure might create a greater hazard than recognized when tested individually unless they are considered as a group.



Public Comment No. 19-NFPA 130-2021 [Section No. 8.6.7.1.2]

8.6.7.1.2* –

Low voltage power and control wires and cables (i.e., less than 100 V ac and 150 V dc) shall comply with 8.6.7.1.1 and either of the following:

- (1) The physical, mechanical, and electrical performance requirements of ICEA S-95-658 ANSI/NEMA WC-70 or ICEA S-73-532 ANSI/NEMA WC-57, as applicable
- (2) The physical, mechanical, and electrical performance requirements of UL 44 for thermosetting insulation and UL 83 for thermoplastic insulation, as applicable

Statement of Problem and Substantiation for Public Comment

This PC simply deletes the asterisk sending to an annex section proposed to be deleted by PC8.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 8-NFPA 130-2021 [Section No. A.8.6.7.1.2]	
<u>Related Item</u>	
• FR62	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 21 12:56:31 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected
Resolution: PC 19 is rejected as the annex provides useful guidance regarding the scope and application of 8.6.7.1.2



Public Comment No. 6-NFPA 130-2021 [Section No. 12.2]

12.2 Flame Spread and Smoke Release.

12.2.1

Except as permitted in 12.2.2, all wires and cables used in stations and trainways, including traction power cables, shall comply with one of the following:

- (1) * Must be listed as being resistant to the spread of fire (FT4) and as having reduced smoke emissions (ST1/LS) by exhibiting a char height of less than 1.5 m (5 ft) when measured from the lower edge of the burner face, having a total smoke release rate of 150 m^2 (1615 ft^2) over 20 minutes, and having a peak smoke release rate of less than $0.40 \text{ m}^2/\text{sec}$ ($4.3 \text{ ft}^2/\text{sec}$) when tested using the FT4/IEEE 1202 flame test in either UL 1685 or UL 2556.
- (2) Must be listed as having adequate fire resistance and low smoke-producing characteristics by exhibiting a flame travel distance that does not exceed 1.5 m (5 ft) and generating a maximum peak optical density of smoke of 0.50 and a maximum average optical density of smoke of 0.15 when tested in accordance with NFPA 262.

12.2.2*

The requirements of 12.2.1 are not applicable where wires and cables ~~comply with one of the following*~~ Circuits are- are contained in circuits encased in concrete having a thickness of at least 50 mm (2 in.) ~~Circuits are located in open stations or open trainways -~~

(Note: annex note is being moved without change).

Statement of Problem and Substantiation for Public Comment

No justification has been presented to lower fire safety requirements by not requiring fire testing of wires and cables in open stations, something that has always been in NFPA 130. The first revision (FR13) was made with the following committee statement: "The reference to 1202 was erroneously omitted from the 2020 version. The language was revised to clarify that the FT4/IEEE1202 flame test is to be used for both UL standards. The reference to "ANSI" was deleted. The section was rewritten to provide improved clarity." The original PI (PI 58) addressed simply a clarification of the fire test. The rationale for PI 58 was: "1202 was omitted as a typo from 2020 version. UL 1685 and UL 2556 are the same UL flame test FT4/IEEE 1202. UL standards reference UL 1685 or UL 2556. Example: UL 44 standard specify UL 2556. " PI 58 added the missing "1202" to "FT 4/IEEE" and the equivalent standard UL 2556.

It is inappropriate to decrease fire safety in this way, without any data indicating that such a move is warranted by data.

Related Item

• FR13 • PI58

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 13 19:48:30 EDT 2021
Committee: FKT-AAA

Committee Statement

**Committee
Action:** Rejected

Resolution: Cables that are installed in open stations or open trainways do not pose a significant flame spread and smoke release hazard and do not require additional protection.



Public Comment No. 24-NFPA 130-2021 [Section No. 12.2.1]

12.2.1

Except as permitted in 12.2.2, all wires and cables used in stations and trainways, including traction power cables, shall comply with one of the following:

- (1) * Must be ~~listed~~ tested as being resistant to the spread of fire (FT4) and as having reduced smoke emissions (ST1/LS) by exhibiting a char height of less than 1.5 m (5 ft) when measured from the lower edge of the burner face, having a total smoke release rate of 150 m² (1615 ft²) over 20 minutes, and having a peak smoke release rate of less than 0.40 m²/sec (4.3 ft²/sec) when tested using the FT4/ IEEE 1202 flame test in either UL 1685 or UL 2556.
- (2) Must be ~~listed~~ tested as having adequate fire resistance and low smoke-producing characteristics by exhibiting a flame travel distance that does not exceed 1.5 m (5 ft) and generating a maximum peak optical density of smoke of 0.50 and a maximum average optical density of smoke of 0.15 when tested in accordance with NFPA 262.

Statement of Problem and Substantiation for Public Comment

Materials should be tested. Whether it is required to be listed is at the discretion of the AHJ. Use of materials not listed but exhibiting the required performance should be permitted, but is not been restrictive to limiting their use.

IEEE 1202 is the test standard and the FT4 prior is not necessary as the FT4 classification has already been stipulated.

Related Item

- FR-13

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 10 18:31:21 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-27-NFPA 130-2021

Statement: Cables need to be listed to ensure reliability, FT4 is one of the references in UL 1685 therefore should remain. The section updated to ensure that limits are clarified whether they are less than defined limits or less than or equal to the defined limits.



Public Comment No. 31-NFPA 130-2021 [New Section after 12.2.2]

TITLE OF NEW CONTENT

(3) Circuits are installed in non-combustible conduit

(4) Circuits are installed in spaces fire separated from the public circulation areas

Statement of Problem and Substantiation for Public Comment

The issue of fire performance and the potential contribution of the cable to fire spread and smoke development is related to the cable exposure and likelihood of contribution to fire spread and smoke development. Installation in conduit limits cable exposure. Similarly, if cables are installed in a service room that is fire separated from the public areas of the station, the risk of exposure to the public is minimized and the potential hazard is contained within the service space.

Considerations are necessary related to the origination of the cable to the specific device and that end to end protection requires evaluation. That is, if a cable in a service room is not flame and smoke rated, the device it connects to in the public space would require protection (i.e. conduit or encasement) so that same exposure risk from the unrated cable is managed in the public areas of the station.

Related Item

- FR-13

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 15:41:26 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected

Resolution: A metallic conduit as defined in NEC does not adequately protect against flame spread and smoke development of the cables within it. The term fire separated for public circulation areas was inadequately defined and it does not address smoke separation.



Public Comment No. 33-NFPA 130-2021 [Section No. 12.2.2]

12.2.2

The requirements of 12.2.1 are not applicable where wires and cables comply with one of the following:

- (1) * Circuits are encased in concrete- ~~having a thickness of at least 50 mm (2 in.)~~
- (2) Circuits are located in open stations or open trainways

Statement of Problem and Substantiation for Public Comment

Defintion of a thicnkess is necessary with a fire resistance rating is required to be specified; this is accounted for in 12.4. Protection of the cable and limiting exposure when encased in concrete is the same as providing a cable in non-combustible conduit. If a thicnkess is to be specified a suitable tehcnical reference and functional need should be established.

Related Item

- FR-13

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 15:52:36 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected

Resolution: The thickness of concrete encasement in NEC is at least 50 mm therefore removing this language could potentially create confusion.



Public Comment No. 16-NFPA 130-2021 [Section No. 12.4.5]

12.4.5*

The circuits in 12.4.4 shall be installed in a manner to reduce the likelihood that a single fire or emergency event will lead to failure of the system by utilizing one of, or a combination of, the following methods:

- (1) The circuits shall consist of fire-resistive cable systems complying with Section 12.5.
- (2) * The circuits shall be encased in concrete to provide protection for 1 hour.
- (3) The circuits shall be protected by a fire barrier system that complies with the requirements of UL 1724 when tested for 1 hour.
- (4) * The circuits shall be redundant such that system operational capability continues.
- (5) Multiple circuits shall be separated by a fire barrier with a fire resistance rating of at least 1 hour when tested in accordance with ASTM E119 or UL 263.

Statement of Problem and Substantiation for Public Comment

Adding the word "utilizing" ensures there is no confusion. If that word is not added, the section could be interpreted to mean that the fire will follow one of the methods.

Related Item

- fr16

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submission Date: Wed Apr 21 12:44:24 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-29-NFPA 130-2021

Statement: Editorial correction.



Public Comment No. 18-NFPA 130-2021 [Section No. 12.5.2]

12.5.2*

The fire-resistive cable systems shall comply with all of the following:

- (1) The cables shall be tested as a complete system, in both the vertical and horizontal orientation, including all the conductors, cables, splices, and raceways, as applicable.
- (2) For fire-resistive cable systems intended for installation in a raceway, the systems shall be tested in the type of raceway in which they are intended to be installed.
- (3)* Installation instructions shall describe the assembly to be tested so that only those system components included in the test assembly are installed.

Statement of Problem and Substantiation for Public Comment

This public comment simply deletes the asterisk which takes to an annex section proposed to be deleted by another PC.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 17-NFPA 130-2021 [Section No. A.12.5.2(3)]	
<u>Related Item</u>	
• FR17	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 21 12:52:39 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-30-NFPA 130-2021
Statement: The addition of exemplary installation instructions is unnecessary and should not be included as not all examples can be added and examples might be misleading.



Public Comment No. 20-NFPA 130-2021 [Section No. A.5.1.2.1]

A.5.1.2.1 —

~~Code analyses can be undertaken to establish code hierarchy, relevance, and the applicability of code or operator criteria.~~

Statement of Problem and Substantiation for Public Comment

As stated by Andrew Coles: It is not the duty of standards to instruct on what the code hierarchy is, or what governs for a specific project or the specific duties of a fire engineer.

As stated by John Devlin: This proposed Annex material is meaningless and provides no information value to the intent of section 5.1.2.1.

This proposed added annex section does not provide any useful information that ahjs and operators can use for the application of the standard.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 21-NFPA 130-2021 [Section No. 5.1.2]	
<u>Related Item</u>	
• FR1	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Wed Apr 21 13:04:17 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: [SR-2-NFPA 130-2021](#)

Statement: Annex is deleted since a standard cannot instruct what the code hierarchy is, or what governs for a specific project or the specific duties of a fire engineer



Public Comment No. 25-NFPA 130-2021 [Section No. A.5.1.2.1]

A.5.1.2.1 —

~~Code analyses can be undertaken to establish code hierarchy, relevance, and the applicability of code or operator criteria.~~

Statement of Problem and Substantiation for Public Comment

The addition from the first draft does not offer usefull guidance. Application of the standard to meet the commensurate level of safety implied is to meet the requirements in the standard. Interaction of other local codes and interpration and application is not the responsibility of NFPA 130. This statement is not necessary.

Related Item

- FR-1

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Mon May 10 19:57:07 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-2-NFPA 130-2021

Statement: Annex is deleted since a standard cannot instruct what the code hierarchy is, or what governs for a specific project or the specific duties of a fire engineer



Public Comment No. 32-NFPA 130-2021 [Section No. A.5.3.1.3]

A.5.3.1.3

Provisions for egress from the platform should consider both egress from a fire on the platform and a fire in the station building.

(1) For egress from the platform during a station building fire, the platform occupant load might not need to account for train evacuation, and it might be reasonable to consider temporary areas of refuge on the platform. Additionally, for the purposes of applying 5.3.9, where the station building includes separate fire compartments, each compartment is permitted to be considered a separate building.

(2) Clause (2) is intended to address systems serving longer commuter and passenger rail trains with long platforms to match. For such configurations, it may also be appropriate to consider temporary evacuation to platform areas or track areas beyond the platform that would be remote from the fire incident.

Statement of Problem and Substantiation for Public Comment

The revisions are intended to address problems that are often encountered in applying Chapter 5 to commuter and passenger rail. Although Section 5.3.3.7 is an existing clause within the standard, AJHs (and sometimes owners) are reluctant to accept variations from the prescriptive requirements in Section 5.3.3 and the proposed language provides emphasis that such variations are permitted with appropriate engineering analysis. Refer also to proposed revisions to Section 5.3.1.3.

Related Item

- First Revision No. 82 - NFPA 130-2020 [New Section after 5.3.1.2]

Submitter Information Verification

Submitter Full Name: Katherine Fagerlund

Organization: EKF Consulting

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 15:42:19 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-21-NFPA 130-2021

Statement: The First Revision language regarding passenger rail was removed due to concerns that it did not adequately address existing passenger rail station configurations. A task group is planned to consider revisions for future editions.



Public Comment No. 38-NFPA 130-2021 [Sections A.6.4.1.3(2), A.6.4.1.4(2)]

Sections A.6.4.1.3(2), A.6.4.1.4(2)

A.6.4.1.3(2)

Where the distance between points of access as described in 6.4.1.3 exceeds 762 m (2500 ft), it may be advisable to consider additional or alternative provisions for access. Where the provision of additional access involves practical difficulties due to configurations such as highway crossings, river crossings, and trainway elevations that are beyond the reach of fire department aerials, and where access from adjacent stations is deemed insufficient by the authority having jurisdiction, greater distances might be acceptable where approved.

A.6.4.1.4(2)

~~Refer to A.6.4.1.3(2). Additionally, provisions for access to open-cut trainways could include~~
Where the configuration of an open-cut trainway prevents or impedes access for firefighting at intervals that exceed 762m (2500 ft), consideration should be given to provisions or alternatives that would facilitate fire fighter access to that section of trainway. Such provisions could include rail-based vehicular access; or stairways, fixed ladders, or ramps. If the access is also to be used for emergency egress, stairways or ramps should be provided.

Statement of Problem and Substantiation for Public Comment

Transit systems often extend beyond suburban areas to link communities through rural regions where compliance with prescriptive distances for access is impossible. Additionally, alternative means for access (such as high-rail vehicles) are not uncommon. Prescriptive distances for access located in the text of the standard has impeded the ability to negotiate reasonable solutions for system designers. Therefore, the proposal is to relocate prescriptive distances to Annex A language. However, regardless of any arbitrary precibed distance, the AHJ in discussion with the fire life safety committee will determine the needs for access to surface and elevated portions of the guideway. Refer also to proposed revisions for 6.4.1.3 and 6.3.1.4.

Related Item

- First Revision No. 41-NFPA 130-2020 [Sections 6.4.1.2, 6.4.1.3, 6.4.1.4, 6.4.1.5, 6.4.1.6, 6.4.1...]

Submitter Information Verification

Submitter Full Name: Katherine Fagerlund

Organization: EKF Consulting

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:23:25 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Rejected but see related SR

Action:**Resolution:** [SR-13-NFPA 130-2021](#)**Statement:** Statement on Main Body Sections:

The legacy 762 m (2500 ft) requirement was retained to facilitate enforcement in the absence of a true performance basis for establishing the interval distance. The need to respond to emergencies exists system-wide and the access provisions were consolidated and further clarified for fenced-off surface rail. Language for alternative approval was added to facilitate flexibility where constraints preclude compliance. Surface rail without dedicated fences was not further restricted due to the complexities of systems, particularly with passenger rail, that operate in range of potential geographical landscapes and remote regions.

Statement on Annex Sections:

The annex is updated to include potential considerations for stakeholders evaluating conditions where access points vary from 762 m. The additional information incorporates factors that may be relevant in substantiating a change in the access distance for portions of the system that may be less accessible or more remote due to geographical or other conditions.



Public Comment No. 8-NFPA 130-2021 [Section No. A.8.6.7.1.2]

A.8.6.7.1.2 —

~~This paragraph does not apply to communication and Ethernet cables such as CAT 5, CAT 5E, CAT 6, CAT 6A, CAT 7, MVB, WTB, CANBUS, RS-485, etc. Communication and Ethernet cables use thin insulation and jackets that do not comply with the thickness and performance requirements of the standards listed in 8.6.7.1.2. In addition, some communication cables use foam insulation, which is not addressed by the referenced standards.~~

Statement of Problem and Substantiation for Public Comment

The annex language added is totally unnecessary. The charging paragraph explains that this applies to "power and control wires and cables" and "communication and Ethernet cables" are neither power nor control cables. Therefore the charging language makes it clear that it does not apply to what it does not describe. Moreover, the addition of a "laundry list" of categories of cables that are not power or control ones is not needed for complying with the standard. The same list is in the next section. The added statement that "Communication and Ethernet cables use thin insulation and jackets that do not comply with the thickness and performance requirements of the standards listed in 8.6.7.1.2" may be true, but may also be proprietary. There is no need for NFPA 130 to discuss properties of products that are not relevant to the section.

The added section also has language that is not typical of NFPA language in that has a list of categories of cables followed by the word "etc.". The standard should address the products to which it applies and that clearly indicates that it does not apply to many others that are not listed among those to which it applies.

Note that the section to which this annex note refers to reads as follows:

8.6.7.1.2*

Low voltage power and control wires and cables (i.e., less than 100 V ac and 150 V dc) shall comply with 8.6.7.1.1 and either of the following:

1. The physical, mechanical, and electrical performance requirements of ICEA S-95-658 ANSI/NEMA WC-70 or ICEA S-73-532 ANSI/NEMA WC-57, as applicable
2. The physical, mechanical, and electrical performance requirements of ANSI/UL 44 for thermosetting insulation and ANSI/UL 83 for thermoplastic insulation, as applicable

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 19-NFPA 130-2021 [Section No. 8.6.7.1.2]	
<u>Related Item</u>	
• FR62	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 13 20:19:55 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected
Resolution: PC 8 is rejected as the annex provides useful guidance regarding the scope and application of 8.6.7.1.2



Public Comment No. 11-NFPA 130-2021 [Section No. A.8.6.7.1.3]

A.8.6.7.1.3

The electrical properties of data and communication cables should comply with the requirements for the cable category or with the applicable local electrical requirements. Different system authorities specify data and communication cables that have specific electrical requirements other than voltage. ~~Some examples of designations for cables potentially used in rail transportation vehicles include CAT 5, CAT 5E, CAT 6, CAT 6A, CAT 7, MVB, WTB, CANBUS, and RS-485.~~

Statement of Problem and Substantiation for Public Comment

It is important that the cables "should comply with the requirements" of the cable category. The addition of the word "requirements" would ensure that the language is clear. The other language change in the first sentence is for grammatical purposes. This is an alternate to PC7 and it deletes the last sentence that contains an unnecessary list of cable categories. I am virtually certain that the list is not comprehensive and, therefore, could imply that categories of cables not mentioned are not covered.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 7-NFPA 130-2021 [Section No. A.8.6.7.1.3]	
<u>Related Item</u>	
• FR68	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 20 21:07:24 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected
Resolution: PC 11 is rejected as the annex provides useful guidance regarding the scope and application of 8.6.7.1.3



Public Comment No. 7-NFPA 130-2021 [Section No. A.8.6.7.1.3]

A.8.6.7.1.3

The electrical properties of data and communication cables should comply with the requirements for the cable category or with the applicable local electrical requirements. Different system authorities specify data and communication cables that have specific electrical requirements other than voltage. Some examples of designations for cables potentially used in rail transportation vehicles include CAT 5, CAT 5E, CAT 6, CAT 6A, CAT 7, MVB, WTB, CANBUS, and RS-485.

Statement of Problem and Substantiation for Public Comment

It is important that the cables "should comply with the requirements" of the cable category. The addition of the word "requirements" would ensure that the language is clear. The other language change is for grammatical purposes.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 11-NFPA 130-2021 [Section No. A.8.6.7.1.3]	
<u>Related Item</u>	
• FR68	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 13 20:04:04 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Accepted
Resolution: [SR-20-NFPA 130-2021](#)
Statement: Editorial correction to ensure that local electrical requirements are followed.



Public Comment No. 17-NFPA 130-2021 [Section No. A.12.5.2(3)]

A.12.5.2(3) —

Examples of installation instructions for fire-resistive cables are UL FHIT and ULC FHIT7.

Statement of Problem and Substantiation for Public Comment

The addition of "examples of installation instructions" is unnecessary and should not be included in NFPA 130. If one adds some examples, that may well leave out other examples and certain manufacturers may like to have their own examples added.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 18-NFPA 130-2021 [Section No. 12.5.2]	
<u>Related Item</u>	
• Fr17	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 21 12:50:41 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-30-NFPA 130-2021
Statement: The addition of exemplary installation instructions is unnecessary and should not be included as not all examples can be added and examples might be misleading.



Public Comment No. 34-NFPA 130-2021 [Section No. B.9.2.5]

B.9.2.5 Vehicle Scale Model Testing.

Scale model testing is an approach in which a reduced-scale, model-size railcar is created as a replica of a full-scale railcar and used to estimate fire behavior. Reduced-scale testing of model size railcars can be used to estimate the fire development characteristics and heat release rates of fires inside full-scale railcars. Algebraic expressions called scaling laws can be used to discover how to minimize the size of a fire, fire extrapolate fire heat release rate, fire development, and material burning characteristics in railcars by comparing the reduced-scale test behavior behaviour to full-scale railcars. The reduced-scale tests are more cost-effective and allow for the effects of different conditions (fire location, initial door positions, interior finish material type, etc.) to be explored. test results.

Scaling laws based on the Froude number were used in reference 36 for scaling railcar fires. This approach required the modification of combustible lining types and thicknesses to limit burning characteristics. Reduced-scale testing was performed using model railcars that were as small as $\frac{1}{10}$ the size of a full-scale railcar. However, the Froude-based scaling laws did not capture all of the compartment fire dynamics, requiring an additional test to be developed to predict full-scale behavior with reduced-scale results.

As a result, different scaling laws have been developed to reduce the compartment fire opening factor and the heat release rate per unit area of a burning surface [37]. This approach has been shown through computational modeling to scale fire behavior and heat release rate results with models down to $\frac{1}{6}$ the size of full-scale railcars. The scaling laws from reference 37 have also been shown to be better than the Froude number scaling applied in reference 36. However, additional experimental validation of the scaling laws developed in reference 37 is needed.

Scale model testing and scaling laws provide an approximation of fire development behavior that might occur at full-scale. As a result, the uncertainty of the results from the scale model approach, as well as the limitations of the methodology employed, should be fully understood and documented along with the results. This includes validating the scaling laws, which might require full-scale fire test data.

Statement of Problem and Substantiation for Public Comment

Editorials to remove cost benefit assumptions and provide context between reduced scale and full scale results.

Related Item

- FR-55

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 15:57:32 EDT 2021

Committee: FKT-AAA

Committee Statement

**Committee
Action:** Accepted

Resolution: SR-31-NFPA 130-2021

Statement: The cost benefit assumptions are removed as they should not be a part of the standard.



Public Comment No. 40-NFPA 130-2021 [Section No. G.1]

G.1 General.

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only. ~~This annex includes information about the beneficial effects of automatic fire detection and onboard fire suppression systems on rail vehicles, as well as on the holistic design of rail systems.~~

Statement of Problem and Substantiation for Public Comment

Suggest if this information is added that it provides guidance and considerations of onboard systems and their design, as opposed to limiting it to benefits. Further, the holistic design issues that are noted in G.3.6 are high level and not quantified.

Suggest this annex is revisited for the second draft to provide considerations of system design, as opposed to benefits and holistic approaches.

Related Item

- FR-89

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:30:08 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-36-NFPA 130-2021

Statement: Part of general section is moved in order to meet document structure for annex sections. The general section is updated to incorporate the newly expanded design considerations.



Public Comment No. 36-NFPA 130-2021 [Section No. G.3.3]

G.3.3 System Type.

For passenger and crew areas, a suppression system should be water mist-based- and intended to sharply reduce the heat release rate of a fire and prevent its growth .

Statement of Problem and Substantiation for Public Comment

This is to specify system type. The statement of "sharply reduce" is not quantified and does not provide guidance wrt the specific section. The system objective has been stated in G.3.1

Related Item

- FR-89

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:04:06 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-38-NFPA 130-2021

Statement: Section expanded to provide quantification and guidance on the specifications of the fire protection system.



Public Comment No. 39-NFPA 130-2021 [Section No. G.3.5]

G.3.5 Design Fire Scenarios.

The ability to suppress a fire in a rail vehicle at the fire's incipient stage is essential to reducing fire growth and controlling a fire. If approved by the AHJ, the design fire scenario and the peak heat release rate can be reduced.

Statement of Problem and Substantiation for Public Comment

Suggest this sections is revisted to address the interior design scenarios for testing the vehicle, similar to EN 45545. There is no guidance offered that is helpfull to a designer, system designer, or an AHJ when trying to enforce the standard, although this is non-mandatory language.

Related Item

- FR-89

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submittal Date: Tue May 11 16:27:40 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-39-NFPA 130-2021

Statement: Section expanded to provide guidance on how the fire safety analysis should be performed to establish the potential fire scenarios.



Public Comment No. 37-NFPA 130-2021 [Section No. G.3.6]

G.3.6 – Design Impact on Other Systems.

The use of an onboard fire suppression system can do the following:

- (1) Limit damage to the train, tunnel, and the station it enters
- (2) Reduce potential use of station sprinklers
- (3) Reduce the impact of designing for fire emergencies on station architecture
- (4) Reduce tunnel ventilation capacity requirements
- (5) Improve fire safety of vehicles with open gangways

Statement of Problem and Substantiation for Public Comment

The purpose of the annex is to illustrate design consideration for onboard fire suppression and detection, if selected. Design impacts are not part of those considerations. Further Annex A.4.2.1 provides considerations if suppression systems are provided.

Related Item

- FR-89

Submitter Information Verification

Submitter Full Name: Andrew Coles

Organization: Senez Consulting Ltd.

Street Address:

City:

State:

Zip:

Submission Date: Tue May 11 16:08:22 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment is rejected as the purpose of the annex is not only to illustrate design consideration for onboard fire suppression and detection. The design impact is directly relevant to this annex and should remain.



Public Comment No. 9-NFPA 130-2021 [Chapter H]

Annex H – Recommended Methods of Ensuring Cooperation Between Rail Agencies and the Authority Having Jurisdiction

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

H.1 – Introduction.

This annex includes recommendations that have been successfully used to promote cooperation between fixed guideway transit and passenger rail systems operators/owners [known as rail agencies (RA)] and those authorities having jurisdiction (AHJ) that have been given the responsibility of ensuring that codes and standards are clearly and properly interpreted and enforced.

Many railroad properties pass through multiple city and state jurisdictions, all of which might have their own fire and life safety guidance, interpretation, and enforcement. Given the range of AHJs and their different regulations, as well as their conformance to different versions of the same regulations, conflicts will undoubtedly occur over the language, interpretation, and enforcement of those regulations. Where direct conflict exists, federal regulations typically supersede state or local regulations, including this standard. Where a higher-level authority (i.e., federal government vs. state and local government) exists, but where those regulations are silent on regulatory language for the subject matter in question, it becomes acceptable to utilize the applicable language of a lower-level authority.

To minimize delays and costs, RAs and AHJs should come to an agreement to apply each jurisdiction's version of a code or standard with a memorandum of understanding (MOU) between the associated parties. An MOU is intended to document which codes and interpretations of codes and standards are to be applied to a specific property and project. The development of this form of joint understanding agreement between RAs and AHJs should be initiated as soon as a project is formulated by the RA so as not to lose time and move the project's design along expeditiously. Wherever possible, an MOU should be used by every AHJ to minimize any possible changes.

Although this standard mostly applies to new railroad properties, it can easily be adapted for modifications and additions to existing railroad properties. When new properties that pass through multiple jurisdictions are added, the regulations between the existing and new jurisdictions often require a thorough review of applicability. NFPA standards have limited legal authority unless they have been otherwise adopted by an enforcement agency, such as state or city legislation. In states, counties, and cities, a building or fire code is often adapted and adopted from the International Code Council by legislation as a minimum requirement. In almost all cases, the legislation establishes the AHJ as the entity that enforces the code or, possibly, the standard. Most commonly, the AHJ achieves its authority from city, county, state, or federal legislation. Where this standard has not been adopted in total, but in part, it is generally recognized as a best practice or a minimum standard guideline document that has legal merit.

H.2 – Regulation Challenges.

It is beneficial to any project to establish a Fire and Life Safety Committee (FLSC) with members including but not limited to RAs, AHJs, and emergency response officials from the communities served. The FLSC must then agree on the following: the applicable regulations, regulation version (adopted or not), minimum requirements, a process for resolution of conflicts to fire and life safety regulations, and gaps in regulations. At the same time, the FLSC must ensure all the responsible agencies that agreed to the regulations are properly represented and are included in standard operating procedures, provide consistent regulations for designers and engineers, and escalate conflicts to policymakers for any issues that cannot be resolved by the FLSC.

H.2.1 – Fire and Life Safety Committee.

The FLSC committee's membership, which includes all the affected agencies, can help ensure that fire/life safety requirements are accounted for in the design, construction, and final operation (revenue service) of the project. However, due to the sensitive nature of the information and decisions shared throughout the course of the fire/life safety process, all those participating in the review of and recommendations for a project should sign a confidentiality agreement. The fire/life safety committee should be the reviewing committee for the fire/life safety considerations of a projects' design and construction operations and should assist in the development of the emergency preparedness plan, including a response and operational requirements program. Note that the FLSC does not have authority over AHJs but provides a forum to resolve conflicts through discussion.

H.2.2 – Coordinating Multiple Agency Responses.

The FLSC also provides a forum for integrating emergency response agency activities. Often, the fire department is the regulatory AHJ; therefore, fire department participation is simplified, as this often includes response for fire, medical, and rescue emergencies. However, other emergency response agencies (law enforcement, EMS, RA, utilities, etc.) should be included in all the relevant discussions and decisions. This inclusion could be significant for rail properties that extend through multiple law enforcement and utility agency jurisdictions.

H.2.3 – FLSC Structure.

H.2.3.1 –

The RA normally assigns their chief safety officer as the FLSC committee chairperson who invites all the AHJ representatives and develops the FLSC structure. The chairperson has the responsibility of ensuring that the FLSC includes members from all the associated fire and life safety agencies.

H.2.3.2 –

Where AHJs choose not to participate, they must provide an officially signed document stating their non-participation in the project to the FLSC chairperson so that they cannot return at a later date to request changes to the project unless they request reinstatement in writing. This should indicate if they will apply their authority on a project. Some AHJs might choose to opt-out of exerting their authority for small, relatively insignificant, or low-impact projects or might defer the authority to another AHJ.

H.2.3.3 –

The FLSC is normally comprised of AHJs, state safety oversight (SSO) agencies, first responder organizations, and recognized international enforcement bodies, as they all might reference this standard. In some cases, there might also be a rail agency that becomes its own authority having jurisdiction. In that case, it is imperative that they follow local codes and standards to ensure compliance with state and local laws.

H.2.3.4 –

With the help of the FLSC chairperson, along with the approval of the RA operator, group members should prepare and issue a charter that establishes the FLSC's scope, clearly defines its roles and responsibilities, establishes methods for conflict resolution, and states the membership status of its members (voting and non-voting). The FLSC must also establish the governing rules for a quorum so that all of its members can vote on all the issues.

H.2.3.5 –

Representatives that are assigned to the FLSC should attend all of the meetings throughout the project's duration. Should that not be feasible, each representative member agency should designate alternates in the early stages of the project. Committee member alternates should attend all of the meetings. Given the potential distances between AHJ offices, tele-meetings might be the most effective method of maintaining meeting dates and times.

H.2.3.6 –

Minutes of meetings and shared documents should be provided to all the participating agencies. An RA-managed, secure internet site should be maintained with authorized access for committee members, alternates, and their supervisors. It is important to present preliminary designs of the project so that members can have a visual understanding of what the project entails, including but not limited to the current and planned track and station alignments corresponding to the jurisdictions crossed.

H.2.3.7 –

Once the FLSC team members and their alternates have been set, a work plan and schedule for future meetings should be established. For new properties or new AHJ representatives in an existing FLSC, it might be necessary to explain the overall project scope, schedule, available RA resources, known AHJ regulations, and fire and life safety systems/concerns.

H.2.3.8 –

For more complex RA properties with simultaneously occurring and potentially interfacing projects, a subcommittee to the FLSC could help to address local project issues. Results from the local project FLSC should be addressed by the full FLSC to integrate the findings across all the projects.

H.2.4 – FLSC Resources.

The FLSC should consider both internal and external resources, such as this standard, other regulations and guidelines, and rail property documents and publications, to assist in resolving conflicts.

RA experts (designers), such as fire protection engineers, architects, traction power specialists, track engineers, mechanical engineers, tunnel operators, etc., are essential resources for specific meetings to provide technical advice to AHJs.

As the project progresses from initial planning through the various other stages of design and construction, the committee should meet with designers and contractors to formulate the best methods for producing a safe and reliable rail station/tunnel, etc. Meetings are also usually required for a train's orientation.

FLSC subcommittees or task groups should be considered for specific issues. They can investigate possible solutions and prepare materials and recommendations for the full FLSC.

Site visits by FLSC members should be arranged to provide a first-hand understanding of any challenges and discuss the resolutions applied based on the committee's discussions and voting.

H.2.5 – Conflicts.

FLSC members should identify regulation conflicts as early in the project's formulation as possible and forward them to the FLSC chairperson for dissemination to all members. Once conflicts are identified, whether they be code conflicts or gaps — i.e., where regulations do not provide clear guidance — the committee should find a method to identify the regulation's intent and document the process to resolve conflicts or provide agreed-upon clarification. The resolution should be distributed to the affected AHJs and included in the design guide, if applicable.

H.2.6 – Level of Compliance.

The RA should assume that they will adopt the most stringent applicable language or, if they adopt a less stringent code or standard, documentation should be provided as to why a less stringent code or standard was adopted. Seeking legal advice prior to the adoption of any regulation is advisable. For example, if this standard is adopted as a design and construction guideline but does not address specific circumstances, language should be considered to address the applicable requirements from other building or fire codes.

H.2.7 – Lead Agency.

As any number of railroad properties pass through multiple jurisdictions with different representative values and regulations, it might be advisable to select one as the lead agency representing the project. Based on the size and complexity of the project, it might be appropriate to establish lead jurisdictions for each critical section/element. For example, for a major tunnel that leads into New York, all the fire departments involved opted to have the New York City Fire Department serve as the lead agency due to its size and expertise. For state safety oversight (SSO) for both New York and New Jersey, New Jersey's SSO was made the lead.

H.2.8 – Design Guide or Technical Requirements.

A design guide must be created while developing the design of a specific project to document the operating facility requirements that will be addressed. The document should include design elements such as architectural guidelines, mechanical guidelines, and fire and life safety guidelines. If a project involves multiple jurisdictions, this document becomes of the utmost importance.

The design guide, as it relates to the applicable fire and life safety regulations, and any local ordinances modified as jointly agreed upon by the AHJs and RA should be established as soon as is practical. In some cases, to reduce the extensive review of multiple, potentially conflicting regulations, a fire and life safety design guide might be developed. This could include related excerpts from the regulations, along with resolutions to conflicts and language to fill regulation gaps. This document offers designers a common ground to ensure their designs meet the RA project's fire and life safety requirements. This can then be the basis for the design work on any projects relative to fire and life safety, such as RA stations.

Although using a single edition of a design guide for the life of an RA is desirable to ensure all the fire and life safety systems are the same, it is not usually possible. Fire and life safety regulations that affect applicability, testing, and maintenance can change as regulations are revised, and projects can be extended or started during a time when new regulations are being adopted. The design guide should be reviewed, updated, and reapproved, and the revised version of the design guide should be issued.

For small changes in regulations, rather than issuing an entirely new design guide, a process for documenting the distribution and receipt of agreed-upon changes should be established as appendix language in the design guide. For example, NFPA occasionally issues Tentative Interim Amendments (TIA) to correct a standard at the request of a Technical Committee.

The design guide, once approved by the AHJ, should not be changed for the specific project under which the design guide was approved unless serious problems with the adopted version of a regulation occur.

If local changes to the design guide are necessary, a document expressly identifying why the change is necessary, specifying the pertinent sections of the applicable regulations, and designating the intent of the change should be signed by the affected parties. This document is often referred to as a letter of concurrence, or LOC.

Even if an FLSC-approved design guide is available, it cannot supersede specific language in the applicable regulations, nor does the presence of a design guide limit the authority vested in the AHJ to make retroactive changes if they are deemed necessary.

H.3 – Emergency Operations Planning and Training.

The FLSC provides a logical venue to develop interagency training for RAs and responding agencies, most notably the operations control center (OCC). Since not all responders are from fire jurisdictions, other agencies should be included in this planning and training. For larger rail properties, an FLSC subcommittee on training is often used. Because all agencies, including RAs, are required to comply with National Incident Management System federal requirements, the command structure of response is already defined. Specific training is required for RAs and other responding agencies.

Given the potential for large-scale, mass-casualty incidents with several jurisdictions responding, the FLSC is a logical location to develop and coordinate the required drills, tabletop scenarios, exercises, etc., to meet the federal commissioning requirements typically included in funding packages. This is specifically applicable where multiple agencies respond, i.e., fire departments; law enforcement; RAs; utilities, such as power; local municipalities; etc.

Training must include pre-opening and ongoing training, as well as training when changes are made that might impact emergency responders and RAs. The training types are identified in the Homeland Security Exercise and Evaluation Program and include seminars, drills, tabletop scenarios, and functional and large-scale exercises.

Statement of Problem and Substantiation for Public Comment

This annex has the potential to create difficulties which will not be able to be solved officially since the annex is unenforceable. It contains opinions that are not suitable for an NFPA standard.

1. The title is misleading: a non mandatory annex cannot ensure anything.
2. The introduction is very US-based, which is a problem for a standard used internationally.
3. The statements in the introduction are of dubious validity internationally and offer legal opinions. Stating that "NFPA standards have limited legal authority unless they have been otherwise adopted by an enforcement agency, such as state or city legislation" applies to the code or standard issued by any private standardization developing organization and does not need to be stated.
4. The statement that "In states, counties, and cities, a building or fire code is often adapted and adopted from the International Code Council by legislation as a minimum requirement." does not recognize that NFPA has its own building and fire codes and also applies only to the US.
5. The next sentence does not recognize the jurisdiction of the FRA and the Department of Transportation (for the US) and is likely not applicable outside the US: "In almost all cases, the legislation establishes the AHJ as the entity that enforces the code or, possibly, the standard." Most commonly, the AHJ achieves its authority from city, county, state, or federal legislation."
6. The next sentence is highly prejudicial in that it presumes facts not in evidence: recognized by whom?: "Where this standard has not been adopted in total, but in part, it is generally recognized as a best practice or a minimum standard guideline document that has legal merit."
7. The following paragraph will probably cause conflict when more than one authority is involved: who decides who takes the lead? Is there value in the examples?: "As any number of railroad properties pass through multiple jurisdictions with different representative values and regulations, it might be advisable to select one as the lead agency representing the project. Based on the size and complexity of the project, it might be appropriate to establish lead jurisdictions for each critical section/element. For example, for a major tunnel that leads into New York, all the fire departments involved opted to have the New York City Fire Department serve as the lead agency due to its size and expertise. For state safety oversight (SSO) for both New York and New Jersey, New Jersey's SSO was made the lead."
8. The rationale given for this new annex gave very few details, as it read: "NFPA has no guidance on the relationships between NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems and the the Authorities Having Jurisdiction. The proposed annex becomes Annex G and

current Annex G becomes Annex H. Proposed annex submitted by Harold Levitt, member emeritus and Gary English, former AHJ. Following suggestions in this annex can streamline design, construction processes for new properties and property retrofits which will save time and money. Suggestions are made based on proven practices."

In summary, I see no advantage in adding proposed Annex H. The relations between ahjs and operators have been working fine for years and are not that different from relations with ahjs in any other code or regulation. This complex system will be very difficult to operate and (as it is non mandatory) will not necessarily be applied. This proposed annex forms an interesting set of recommendations and, perhaps, could form the basis for a publication by the proponents but is not appropriate as an NFPA 130 annex.

Related Item

- Fr89

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 20 16:09:37 EDT 2021
Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: [SR-32-NFPA 130-2021](#)
Statement: The Annex is updated to give recommendations without necessarily giving instructions to the AHJ and provides suggestions for resolving conflicts.



Public Comment No. 27-NFPA 130-2021 [Section No. H.1]

H.1 Introduction.

This annex includes recommendations that have been successfully used to promote cooperation between fixed guideway transit and passenger rail systems operators/owners [known as rail agencies (RA)] and those authorities having jurisdiction (AHJ) that have been given the responsibility of ensuring that codes and standards are clearly and properly interpreted and enforced.

Many railroad properties pass through multiple city and state jurisdictions, all of which might have their own fire and life safety guidance, interpretation, and enforcement. Given the range of AHJs and their different regulations, as well as their conformance to different versions of the same regulations, conflicts will undoubtedly occur over the language, interpretation, and enforcement of those regulations. Where direct conflict exists, federal regulations typically supersede state or local regulations, including this standard. Where a higher-level authority (i.e., federal government vs. state and local government) exists, but where those regulations are silent on regulatory language for the subject matter in question, it becomes acceptable to utilize the applicable language of a lower-level authority.

To minimize delays and costs, RAs and AHJs should come to an agreement to apply each jurisdiction's version of a code or standard with a memorandum of understanding (MOU) between the associated parties. An MOU is intended to document which codes and interpretations of codes and standards are to be applied to a specific property and project. The development of this form of joint understanding agreement between RAs and AHJs should be initiated as soon as a project is formulated by the RA so as not to lose time and move the project's design along expeditiously. Wherever possible, an MOU should be used by every AHJ to minimize any possible changes.

Although this standard mostly applies to new railroad properties, it can easily be adapted for modifications and additions to existing railroad properties. When new properties that pass through multiple jurisdictions are added, the regulations between the existing and new jurisdictions often require a thorough review of applicability. NFPA standards have limited legal authority unless they have been otherwise adopted by an enforcement agency, such as state or city legislation. In states, counties, and cities, a building or fire code is often adapted and adopted from the International Code Council by legislation as a minimum requirement. In almost all cases, the legislation establishes the AHJ as the entity that enforces the code or, possibly, the standard. Most commonly, the AHJ achieves its authority from city, county, state, or federal legislation. Where this standard has not been adopted in total, but in part, it is generally recognized as a best practice or a minimum standard guideline document that has legal merit.

Statement of Problem and Substantiation for Public Comment

NFPA annex was considered too long by technical committee. A Series of strike throughs and new shorter language replacements are provided

Related Item

- More concise version provided

Submitter Information Verification

Submitter Full Name: Gary English

Organization: Underground Command And Safety

Street Address:

City:**State:****Zip:****Submittal Date:** Mon May 10 22:33:30 EDT 2021**Committee:** FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR**Resolution:** SR-32-NFPA 130-2021**Statement:** The Annex is updated to give recommendations without necessarily giving instructions to the AHJ and provides suggestions for resolving conflicts.



Public Comment No. 22-NFPA 130-2021 [Section No. I.1.2.4]

I.1.2.4 ASTM Publications.

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

ASTM D3675, *Standard Test Method for Surface Flammability of Flexible Cellular Materials Using a Radiant Heat Energy Source*, 2019 2021 .

ASTM E162, *Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source*, 2016.

ASTM E662, *Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials*, 2019 2021 .

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

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

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

ASTM E2061, *Standard Guide for Fire Hazard Assessment of Rail Transportation Vehicles*, 2020.

Statement of Problem and Substantiation for Public Comment

date updates

Related Item

- Fr32

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

Organization: GBH International

Street Address:

City:

State:

Zip:

Submittal Date: Tue Apr 27 12:42:49 EDT 2021

Committee: FKT-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-40-NFPA 130-2021

Statement: Reference Updates