



Second Revision No. 21-NFPA 30B-2025 [ Global Comment ]

[See attached Word doc for new Annex for Protection of Industrial Spray Adhesive and Expanding Foam Products]

Supplemental Information

| <u>File Name</u>                                                                 | <u>Description</u>                                                                 | <u>Approved</u> |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------|
| 30B_SR21_Annex_for_Protection_of_Spray_Adhesive_and_Expanding_Foam_Products.docx | New Annex for Protection of Industrial Spray Adhesives and Expanding Foam Products |                 |
| 30B_Gloabl_SR-21_For_Ballot.pdf                                                  |                                                                                    |                 |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Thu Jul 24 15:35:30 EDT 2025

Committee Statement

**Committee Statement:** The NFPA Standards Council charged the Technical Committee on Aerosol Products (NFPA 30B Technical Committee) with the task of proposing safety guidelines for spray adhesive and expanding insulation foam products packaged in pressurized cylinders. Since these products are packaged in metal containers that are larger than the maximum size of 1000 ml prescribed in NFPA 30B for aerosol products, the Technical Committee established a Task Group on Spray Adhesives and Expanding Insulation Foam Products in Pressurized Containers. Currently full-scale fire testing is not available for these products. Protection criteria using barriers and in-rack sprinklers is used within NFPA 30 for the highest challenge storage. The committee feels that this new annex with protection criteria provides potential to achieve viable protection for these products.

**Response Message:** SR-21-NFPA 30B-2025

Public Comment No. 19-NFPA 30B-2025 [New Section after 7.1.2]

## **Annex J Protection of Industrial Spray Adhesive and Expanding Foam Products**

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

### **J.1 Scope.**

This annex applies to fire protection for inside storage of refillable or non-refillable industrial spray adhesive and expanding foam products packaged in pressurized cylinders. The base product can be an ignitable (flammable or combustible) liquid and the liquified or compressed propellant can be a flammable gas.

### **J.2 Exclusions.**

This annex does not apply to the following:

- (1) Products consisting of non-ignitable (non-flammable or non-combustible) liquids and non-flammable propellants
- (2) Cylinders less than or equal to 1000 ml (33.8 fl oz)
- (3) Cylinders that are non-metal, such as fiberglass, plastic, composite, etc.
- (4) Cylinders that are not provided with emergency pressure relief venting
- (5) Cylinders that have not been specified by the Department of Transportation (DOT)
- (6) Cylinders that are palletized or stacked
- (7) Cylinders in multiple-row racks (See Section 3.3 of NFPA 13)
- (8) Cylinder storage that exceeds 4.6 m (15 ft)
- (9) Cylinder storage in buildings that exceeds 9 m (30 ft)

### **J.3 Storage.**

#### **J.3.1**

All cylinders should be stored in a vertical position.

##### **J.3.1.1**

Any cylinders designed for horizontal end use can be stored in a horizontal position.

##### **J.3.1.2**

Cylinders should be secured to each other by stress-/stretch-wrapping or steel bands if there is more than one per pallet, or secured to the pallet by steel bands if there is only one per pallet.

##### **J.3.1.3**

Cylinders packaged in cardboard boxes should be secured to each other by stress-/stretch-wrapping.

##### **J.3.1.4**

Storage should be limited to single-row or double-row racks. (See Section 3.3 of NFPA 13.)

##### **J.3.1.5**

Storage height should be limited to two storage rack tiers with a maximum height of 4.6 m (15 ft). Each tier should be no more than one pallet load high.

#### **J.3.1.6**

Aisles should be limited to 3 m (10 ft) minimum between storage racks.

#### **J.3.1.7**

Storage racks should be dedicated to pressurized cylinders storage only. Adjacent bays should not contain any other storage.

### **J.4 Fire Protection.**

#### **J.4.1**

Horizontal barriers within the storage rack should be of minimum 22-gauge sheet metal installed in accordance with Figure J.4.1(a) or Figure J.4.1(b), as applicable.

Figure J.4.1(a) Single-Row Rack Sprinkler Layout.

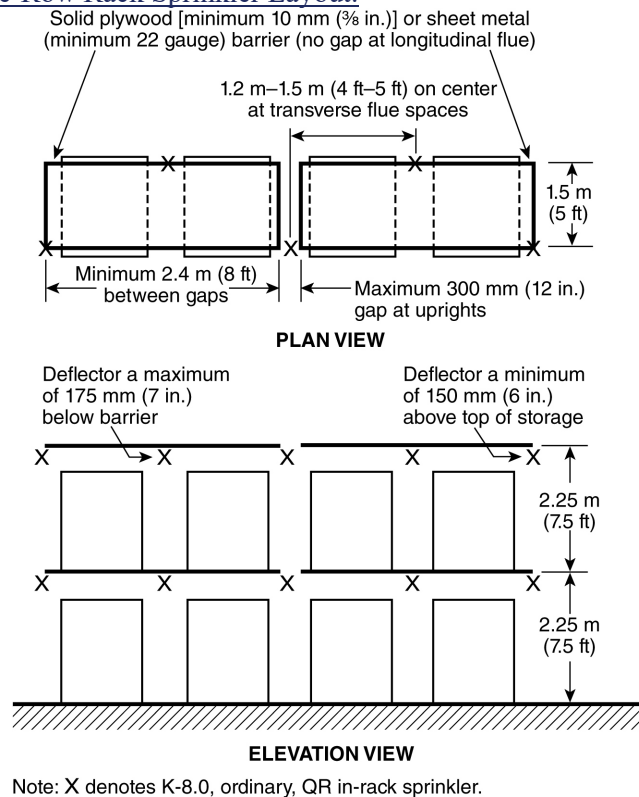
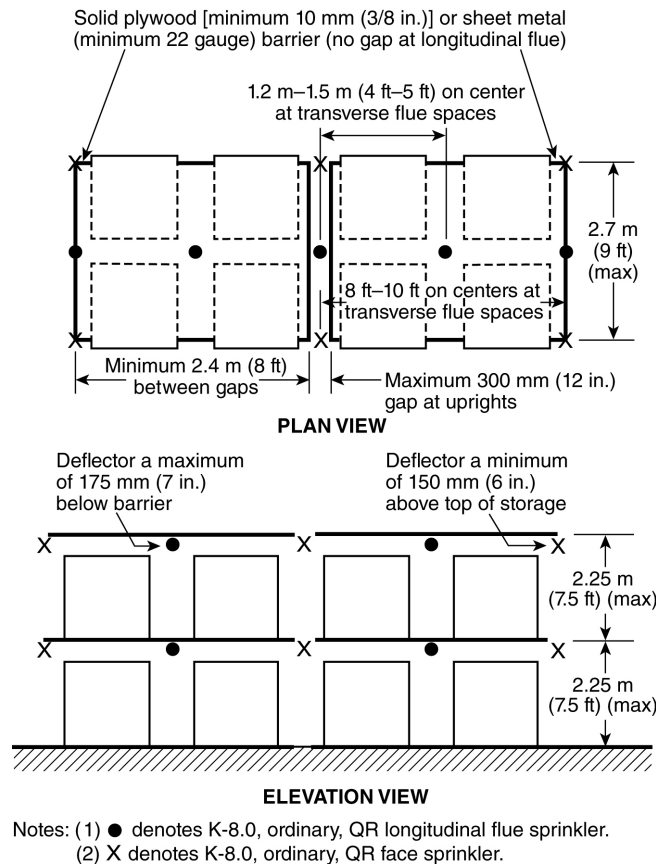


Figure J.4.1(b) Double-Row Rack Sprinkler Layout.



#### J.4.2

Sprinklers within the storage rack should be installed in accordance with Figure J.4.1(a)J.4.1(a) or Figure J.4.1(b)J.4.1(b), as applicable.

#### J.4.3

Sprinklers within the storage rack should meet the following requirements:

- (1) Have a minimum discharge of 228 L/min (60 gpm) from each of the hydraulically most remote 12 sprinklers (12 on 1 line or 6 on 2 lines on the same level)
- (2) Have a K-factor of  $\geq 8.0$  ( $\geq 115$ ), be quick response, and have an ordinary temperature (an intermediate temperature is allowed where ambient conditions require)
- (3) Have a minimum discharge pressure of not less than a gauge pressure of 0.69 bar (10 psi).

#### J.4.4

Sprinklers at the ceiling should meet the following requirements:

- (1) Have a minimum density of 24 mm/min (0.60 gpm/ft<sup>2</sup>) over the most hydraulically remote 279 m<sup>2</sup> (3,000 ft<sup>2</sup>).
- (2) Have a K-factor of  $\geq 11.2$  ( $\geq 160$ ), be standard response, and have an ordinary temperature (an intermediate temperature is allowed where ambient conditions require)

#### **J.4.5**

Ceiling and rack storage sprinkler water demands do not need be balanced at the point of connection.

#### **J.4.6**

A 1893 L/min (500 gpm) hose stream allowance should be provided.



Second Revision No. 27-NFPA 30B-2025 [ Global Comment ]

[See Word document to reflect revisions to Section 7.1.1 and new Section 7.6]

Supplemental Information

| <u>File Name</u>                                | <u>Description</u>                            | <u>Approved</u> |
|-------------------------------------------------|-----------------------------------------------|-----------------|
| 30B_SR27_Section_7.1.1_and_new_Section_7.6.docx | Section 7.1.1 revision and new<br>Section 7.6 |                 |
| 30B_Global_SR-27_For_Ballot.docx                |                                               |                 |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Fri Jul 25 16:22:56 EDT 2025

Committee Statement

**Committee Statement:** The NFPA Standards Council charged the Technical Committee on Aerosol Products (NFPA 30B Technical Committee) with the task of proposing safety guidelines for spray adhesive and expanding insulation foam products packaged in pressurized cylinders. Since these products are packaged in metal containers that are larger than the maximum size of 1000 ml prescribed in NFPA 30B for aerosol products, the Technical Committee established a Task Group on Spray Adhesives and Expanding Insulation Foam Products in Pressurized Containers. In response requirements were added to Chapter 7 for storage protection of industrial spray adhesives or expanding foam products that are filled into containers larger than 1000 ml.

**Response Message:** SR-27-NFPA 30B-2025

### 7.1.1

The protection criteria in this chapter shall apply to the following:

- (1) Level 1 Aerosol Products in metal containers up to and including 1000 ml (33.8 fl oz) capacity, in accordance with Section 7.2
- (2) Aerosol cooking spray products in metal containers up to and including 1000 ml (33.8 fl oz) capacity, in accordance with Section 7.3
- (3) Level 2 and Level 3 Aerosol Products in metal containers up to and including 1000 ml (33.8 fl oz) capacity, in accordance with Section 7.4
- (4) Aerosol products in glass and plastic containers not more than 118 ml (4 fl oz) capacity, in accordance with Section 7.4
- (5) Plastic Aerosol 1 Products in plastic containers greater than 118 ml (4 fl oz) capacity and up to and including 1000 ml (33.8 fl oz) capacity, in accordance with Section 7.5
- (6) Plastic Aerosol 2 Products in plastic containers greater than 118 ml (4 fl oz) capacity and not more than 1000 ml (33.8 fl oz), in accordance with Section 7.4
- (7) Plastic Aerosol 3 Products in plastic containers greater than 118 ml (4 fl oz) capacity and up to and including 1000 ml (33.8 fl oz) capacity, in accordance with Section 7.4
- (8) Plastic Aerosol Cooking Spray Products in plastic containers greater than 118 ml (4 fl oz) capacity and not more than 1000 ml (33.8 fl oz), in accordance with 7.3.2.3
- (9) Industrial spray adhesives and expanding foam products in containers larger than 1000 ml (33.8 fl oz) in accordance with Section 7.6

### **7.6 Storage of Industrial Spray Adhesives and Expanding Foam Products in Containers Larger Than 1000 ml (33.8 fl oz).**

Industrial spray adhesive and expanding foam products in cylinders larger than 1000 ml (33.8 fl oz) stored inside a building shall be protected using protection criteria acceptable to the AHJ. (See Annex J for information on storage protection of industrial spray adhesive and expanding foam products).



Second Revision No. 5-NFPA 30B-2025 [ Detail ]

6.5\* Electrical Equipment.

Electrical equipment and wiring in flammable propellant charging and pump rooms shall be suitable for Class I, Division 1; ~~or Class I, Zone 1~~; or Zone 0 locations in accordance with Articles 500, 501, 504, or 505 of NFPA 70.

A.6.5

In many installations, Class I, Division 1 or Zone 1 designations are appropriate. However, installation details can require the consideration of a Zone 0 assignment. Additional resources for evaluating electrical area classification can be found in NFPA 30;NFPA 58;NFPA 70;NFPA 497; ANSI/API RP 505, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2; and ANSI/ISA 60079-10-1 (12.24.01), Explosive Atmospheres — Part 10-1: Classification Of Areas — Explosive Gas Atmospheres.

Supplemental Information

| <u>File Name</u>         | <u>Description</u>                              | <u>Approved</u> |
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| 30B_SR5_Section_6.5.docx | Revision to Section 6.5 and new annex material. |                 |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Tue Jul 22 16:11:36 EDT 2025

Committee Statement

**Committee Statement:** The prefix Class I in front of Zone 1 is redundant according to NFPA 70 and was deleted. The committee recognizes that while Zone 0 is encompassed in the same area as Class I, Division 1, Zone 1 assignments are commonly viewed as appropriate. However, in certain installations a Zone 0 assignment may be necessary, and the reader of the standard will benefit from the added annex information on how to evaluate proper electrical area classification assignments.

**Response Message:** SR-5-NFPA 30B-2025

Public Comment No. 5-NFPA 30B-2025 [Section No. 6.5 [Excluding any Sub-Sections]]



Second Revision No. 8-NFPA 30B-2025 [ Detail ]

6.5.4\*

When used with Class I liquid base products [FP <37.8°C (100°F)] (as defined in NFPA 30), vacuum pumps used for creating aerosol container ~~vacuum~~ vacuums in the crimper shall be Class I, Division 1; ~~or Class I, Zone 1; or Zone 0.~~

A.6.5.4

In many installations, Class I, Division 1 or Zone 1 designations are appropriate. However, installation details can require the consideration of a Zone 0 assignment. Additional resources for evaluating electrical area classification can be found in NFPA 30; NFPA 58; NFPA 70; NFPA 497; ANSI/API RP 505, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2; and ANSI/ISA 60079-10-1 (12.24.01), Explosive Atmospheres — Part 10-1: Classification Of Areas — Explosive Gas Atmospheres.

Supplemental Information

| <u>File Name</u>           | <u>Description</u>                                 | <u>Approved</u> |
|----------------------------|----------------------------------------------------|-----------------|
| 30B_SR8_Section_6.5.4.docx | Revisions to Section 6.5.4 and new annex material. |                 |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Wed Jul 23 07:45:35 EDT 2025

Committee Statement

**Committee Statement:** The Class I liquid terminology was revised to align with NFPA 30. The prefix Class I in front of Zone 1 is redundant according to NFPA 70 and was deleted. The committee recognizes that while Zone 0 is encompassed in the same area as Class I, Division 1, Zone 1 assignments are commonly viewed as appropriate. However, in certain installations a Zone 0 assignment may be necessary, and the reader of the standard will benefit from the added annex information on how to evaluate proper electrical area classification assignments.

**Response Message:** SR-8-NFPA 30B-2025

Public Comment No. 8-NFPA 30B-2025 [Section No. 6.5.4 [Excluding any Sub-Sections]]

**Second Revision No. 24-NFPA 30B-2025 [ Section No. 1.1 ]****1.1 Scope.****1.1.1**

This code shall apply to the manufacture, storage, and display of aerosol products and industrial spray adhesives and expanding foam products as herein defined.

**1.1.2\***

This code shall apply to the storage and display of products whose contents are comprised entirely of compressed or liquefied gas, provided that the containers meet the requirements of 3.3.1 through 3.3.4.

**1.1.3**

This code shall not apply to post-consumer processing of aerosol containers.

**~~1.1.4\*~~**

~~This code shall not apply to containers that do not meet the definition of *Aerosol Container* (see 3.3.1 ) :~~

**A.1.1.4**

~~This code does not apply to products that can be dispensed as aerosolized sprays that are not packaged in aerosol containers as defined in 3.3.1 . This code is not applicable to other applications such as industrial spray adhesives that are dispensed from large [18.9 L–475 L (5–125 gal)] pressurized gas cylinders. There is no assurance that the protection specified in this code will be adequate.~~

**~~1.1.4.1~~**

~~Containers that contain a product that meets the definitions in 3.3.2 and 3.3.3 , but are larger than the limits specified in 3.3.1 , shall not be classified as aerosol products, and this code shall not apply to the manufacture, storage, and display of such products.~~

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Fri Jul 25 15:40:35 EDT 2025

**Committee Statement**

**Committee Statement:** Scope section was revised to include industrial spray adhesives and expanding foam products as new requirements have been added to the code for these products. Previous exclusions that did not allow these products were deleted.

**Response Message:** SR-24-NFPA 30B-2025



Second Revision No. 25-NFPA 30B-2025 [ Section No. 1.2 ]

1.2\* Purpose.

The purpose of this code is to provide minimum requirements for the prevention and control of fires and explosions in ~~facilities that manufacture, store, or display aerosol products.~~ the following:

- (1) ~~facilities~~ Facilities that manufacture, store, or display aerosol products:-
- (2) Facilities that manufacture or store industrial spray adhesives and expanding foam products

A.1.2

~~This code provides minimum acceptable requirements for fire prevention and protection in facilities that manufacture and store aerosol products and in mercantile occupancies where aerosol products are displayed and sold. As explained in A.6.1, the hazards presented by each stage of the manufacturing process will vary, depending on the flammability of the base product and on the flammability of the propellant. Considerable judgment will be required of the designer and of the authority having jurisdiction to provide an adequate level of fire protection. ( See also Annex B, Mechanism of Fire Growth in Aerosol Containers Products .)~~

Supplemental Information

| File Name                 | Description               | Approved |
|---------------------------|---------------------------|----------|
| 30B_SR25_Section_1.2.docx | Revisions to Section 1.2. |          |
| 30B_SR25_Section_1.2.docx | For prod use              |          |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Fri Jul 25 15:44:11 EDT 2025

Committee Statement

**Committee Statement:** Purpose section was revised to include industrial spray adhesives and expanding foam products as new requirements for these products were added to the code. The associated annex material was revised to delete information that the committee did not feel was helpful for users and addressed in other sections of the document. The reference to Annex B was kept in the annex to assist users with information on the mechanism of fire growth in aerosol containers.

**Response Message:** SR-25-NFPA 30B-2025



## Second Revision No. 26-NFPA 30B-2025 [ Section No. 1.3 ]

### 1.3 Application.

#### 1.3.1

Chapters 5, 6, and 9 shall apply to facilities or portions of facilities that manufacture aerosol products or industrial spray adhesives and expanding foam products , including gas-filling, product-filling, and packaging operations.

#### 1.3.2

Chapters 5, 7, and 9 shall apply to facilities or portions of facilities that store aerosol products or industrial spray adhesives and expanding foam products , such as storage areas, storage rooms, and warehouses.

#### 1.3.3

Chapters 5, 8, and 9 shall apply to the storage and display of aerosol products in mercantile occupancies.

#### 1.3.4

Industrial spray adhesives and expanding foam products that contain non-ignitable (non-flammable or non-combustible) liquids and non-flammable propellants are not covered by this code.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Fri Jul 25 15:49:45 EDT 2025

## Committee Statement

**Committee Statement:** Application section was revised to include industrial spray adhesives and expanding foam products and to also exclude the products that contain non-ignitable (non-flammable or non-combustible) liquids and non-flammable propellant. New requirements have been added to the code for these products.

**Response Message:** SR-26-NFPA 30B-2025



## Second Revision No. 1-NFPA 30B-2025 [ Section No. 2.3 ]

### 2.3 Other Publications.

#### 2.3.1 ASME Publications.

American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990.

ANSI/ASME ~~ITSDE~~ B56.1, *Safety Standard for Low-Lift and High-Lift Trucks*, 2020.

#### 2.3.2 ASTM Publications.

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

ASTM A47/A47M, *Standard Specification for Ferritic Malleable Iron Castings*, 1999, reapproved 2022.

ASTM A48/A48M, *Standard Specification for Gray Iron Castings*, 2003, reapproved 2022.

ASTM A395/A395M, *Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures*, 1999, reapproved 2022.

ASTM A536, *Standard Specification for Ductile Iron Castings*, 1984, reapproved 2019 ~~2024~~.

ASTM D92, *Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester*, 2018 ~~2024~~.

#### 2.3.3 UN Publications.

United Nations, 760 United Nations Plaza, New York, NY 10017.

*UN Recommendations on the Transport of Dangerous Goods*, 2015.

#### 2.3.4 US Government Publications.

US Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 49, Code of Federal Regulations, Part 173, Appendix H, "Method of Testing for Sustained Combustibility."

#### 2.3.5 Other Publications.

*Merriam-Webster's Collegiate Dictionary*, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2020.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 03 12:58:12 EDT 2025

## Committee Statement

**Committee Statement:** Revisions to update edition years of Other Publications.

**Response Message:** SR-1-NFPA 30B-2025



**Second Revision No. 2-NFPA 30B-2025 [ Section No. 2.4 ]**

**2.4** References for Extracts in Mandatory Sections.

NFPA 1, *Fire Code*, 2024 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, ~~2022~~ 2025 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2024 edition.

NFPA 68, *Standard on Explosion Protection by Deflagration Venting*, 2023 edition.

NFPA 70<sup>®</sup>, *National Electrical Code*<sup>®</sup>, 2023 edition.

NFPA 72<sup>®</sup>, *National Fire Alarm and Signaling Code*<sup>®</sup>, ~~2022~~ 2025 edition.

NFPA 77, *Recommended Practice on Static Electricity*, 2024 edition.

NFPA 5000<sup>®</sup>, *Building Construction and Safety Code*<sup>®</sup>, 2024 edition.

**Submitter Information Verification**

**Committee:** AER-AAA  
**Submittal Date:** Thu Jul 03 13:04:07 EDT 2025

**Committee Statement**

**Committee Statement:** Revisions to update edition years of References for Extracts in Mandatory Sections.  
**Response Message:** SR-2-NFPA 30B-2025

**Second Revision No. 22-NFPA 30B-2025 [ New Section after 3.3.15 ]****3.3.16\*** Cylinder.

A portable container designed for absolute pressures higher than 276 kPa (40 psi) that has a circular cross-section.

**A.3.3.16** Cylinder.

This does not include portable tanks, multi-unit tank car tanks, cargo tanks, or tank cars. For products that use liquefied gas propellant, cylinders should be designed to transport and store liquefied gas products such as LP gas.

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Fri Jul 25 15:33:43 EDT 2025

**Committee Statement**

**Committee Statement:** New definition for cylinder with associated annex material was added to further clarify the term used widely throughout the code.

**Response Message:** SR-22-NFPA 30B-2025



## Second Revision No. 23-NFPA 30B-2025 [ New Section after 3.3.24 ]

### 3.3.26 Industrial Spray Adhesive and Expanding Foam Products.

An ignitable (flammable or combustible) base product, flammable liquefied or compressed propellant product, or both that is packaged in a Department of Transportation (DOT) specified, refillable or non-refillable pressurized cylinder of metal construction that has a capacity greater than 1000 ml (33.8 fl oz) and that is designed and intended to dispense the product as a spray or foam.

### Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Fri Jul 25 15:36:39 EDT 2025

### Committee Statement

**Committee Statement:** New definition added to clarify what is considered to be industrial spray adhesive and expanding foam products.

**Response Message:** SR-23-NFPA 30B-2025

**Second Revision No. 28-NFPA 30B-2025 [ Section No. 3.3.44.4 ]****3.3.44.4 Rack Shelf Area.**

The area of the horizontal surface of a shelf in a rack defined by perimeter aisle(s) or nominal ~~452~~ 150 mm (6 in.) flue spaces on all four sides, or by the placement of loads that block openings that would otherwise serve as the required flue spaces. [~~13,2022~~ 2025]

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Tue Aug 19 10:41:36 EDT 2025

**Committee Statement**

**Committee Statement:** Revision to align the dimension (revised 152 mm to 150 mm) with the source document definition in NFPA 13.

**Response Message:** SR-28-NFPA 30B-2025

**Second Revision No. 13-NFPA 30B-2025 [ Section No. 5.3.1.1 ]****5.3.1.1**

Electrical equipment and wiring in areas where ~~flammable liquids or Class I liquids~~ [FP <37.8°C (100°F)] ~~or~~ flammable gases are handled shall meet the ~~additional~~ applicable requirements of Articles 500, 501, 504, or 505 of *NFPA 70*.

**5.3.1.2\***

Electrical equipment and wiring in areas where Class II or Class III liquids [FP ≥37.8°C (100°F)] are heated at or above their closed cup flash point shall meet the applicable requirements of Articles 500, 501, 504, or 505 of *NFPA 70* , unless an engineering evaluation has determined a different hazardous classification is justified.

**A.5.3.1.2**

For additional information on performing the engineering evaluation, see Chapter 6 of *NFPA 30*.

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Wed Jul 23 11:53:09 EDT 2025

**Committee Statement**

**Committee Statement:** Revision made to align terminology and requirements with NFPA 30 and adds new requirement for Class II and Class III liquids heated above their closed cup flash point. Revision also added annex material to assist users with the performance of the engineering evaluation.

**Response Message:** SR-13-NFPA 30B-2025

Public Comment No. 15-NFPA 30B-2025 [Section No. 5.3.1.1]



## Second Revision No. 19-NFPA 30B-2025 [ Section No. 6.1 ]

### 6.1\* Scope.

This chapter shall apply to the manufacture of aerosol products containing flammable or combustible base product or a flammable propellant.

#### 6.1.1

Where ignitable (flammable or combustible) base products or flammable propellants are used in industrial spray adhesive and expanding foam products packaged in a pressurized cylinder larger than 1000 ml (33.8 fl oz), the provisions of Section 6.16 shall apply.

#### 6.1.2

In propellant charging and pump rooms where aerosol products and pressurized cylinders larger than 1000 ml (33.8 fl oz) are filled with ignitable (flammable or combustible) base products or flammable propellants, the requirements of Chapter 6 shall apply.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 24 08:55:43 EDT 2025

## Committee Statement

**Committee Statement:** The NFPA Standards Council charged the Technical Committee on Aerosol Products (NFPA 30B Technical Committee) with the task of proposing safety guidelines for spray adhesive and expanding insulation foam products packaged in pressurized cylinders. Since these products are packaged in metal containers that are larger than the maximum size of 1000 ml prescribed in NFPA 30B for aerosol products, the Technical Committee established a Task Group on Spray Adhesives and Expanding Insulation Foam Products in Pressurized Containers. In response, requirements were added to expand the scope of Chapter 6 to provide guidance for protection of operations involving industrial spray adhesives or expanding foam products that are filled into containers larger than 1000 ml.

**Response Message:** SR-19-NFPA 30B-2025

Public Comment No. 3-NFPA 30B-2025 [New Section after 6.1]



## Second Revision No. 6-NFPA 30B-2025 [ Section No. 6.5.1 ]

### 6.5.1

If the vacuum pumps for propellant charging are installed remotely (i.e., not in the charging room), the area within 1.5 m (5 ft) of the extremities of the pumps shall be classified as a ~~Class I~~, Division 2 or ~~Class I~~, Zone 2 location.

### Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Tue Jul 22 16:14:28 EDT 2025

### Committee Statement

**Committee Statement:** The prefix Class I in front of Zone 2 is redundant according to NFPA 70 and was deleted.

**Response Message:** SR-6-NFPA 30B-2025

[Public Comment No. 6-NFPA 30B-2025 \[Section No. 6.5.1\]](#)



Second Revision No. 7-NFPA 30B-2025 [ Section No. 6.5.3 ]

6.5.3\*

For button tippers (actuator placers) and test baths that handle products containing flammable gases or flammable liquids, the following area classification requirements shall apply:

- (1)\* The area enclosed by the button tipper (actuator placer) or test bath shall be classified as a Class I, Division 1; ~~or Class I, Zone 1;~~ or Zone 0 .

**A.6.5.3(1)**

Depending on installation details, such as ventilation, the button tipper could be considered a Zone 0 or Zone 1 location. Additional resources for evaluating electrical area classification can be found in NFPA 30 ; NFPA 58 ; NFPA 70 ; NFPA 497 ; ANSI/API RP 505, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2 ; and ANSI/ISA 60079-10-1 (12.24.01), Explosive Atmospheres — Part 10-1: Classification Of Areas — Explosive Gas Atmospheres .

- (2) The area within 1.5 m (5 ft) in all directions of the button tipper (actuator placer) or test bath shall be classified as a Class I, Division 2 or ~~Class I, Zone 2~~ area .

Supplemental Information

| <u>File Name</u>           | <u>Description</u>          | <u>Approved</u> |
|----------------------------|-----------------------------|-----------------|
| 30B_SR7_Section_6.5.3.docx | Revisions to Section 6.5.3. |                 |

Submitter Information Verification

Committee: AER-AAA  
Submittal Date: Wed Jul 23 07:37:35 EDT 2025

Committee Statement

**Committee Statement:** The prefix Class I in front of Zone 1 and Zone 2 is redundant according to NFPA 70 and was deleted. The committee recognizes that while Zone 0 is encompassed in the same area as Class I, Division 1, button tippers correspond with locations that could be considered a Zone 1 or Zone 0 location depending on installation details. The reader of the standard will benefit from the added annex information on how to evaluate proper electrical area classification assignments.

**Response Message:** SR-7-NFPA 30B-2025

Public Comment No. 7-NFPA 30B-2025 [Section No. 6.5.3]



## Second Revision No. 9-NFPA 30B-2025 [ Section No. 6.5.4.1 ]

### 6.5.4.1

The areas within 1.5 m (5 ft) of the extremities of the pumps shall be classified as Class I, Division 2 or ~~Class I~~, Zone 2 locations.

### Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Wed Jul 23 07:47:53 EDT 2025

### Committee Statement

**Committee Statement:** The prefix Class I in front of Zone 2 is redundant according to NFPA 70 and was deleted.

**Response Message:** SR-9-NFPA 30B-2025

[Public Comment No. 9-NFPA 30B-2025 \[Section No. 6.5.4.1\]](#)



**Second Revision No. 15-NFPA 30B-2025 [ Section No. 6.5.5 ]**

**6.5.5**

~~For any checkweighers that handle used with~~ products containing flammable gases or Class I liquids ~~prior to verification that there is no leakage of the sealed container, the area enclosed by and within 1.5 m (5 ft) in all directions shall be classified as Class I, Division 2 or Class I, Zone 2 locations. [FP <37.8°C (100°F)] (as defined in NFPA 30 ), the following area classification requirements shall apply:~~

- ~~(1) The area enclosed by the checkweigher and the area within 1.5 m (5 ft) in all directions shall be classified as a Class I, Division 2 or Zone 2 location.~~
- ~~(2) Checkweighers located in propellant charging rooms (gas houses) shall be classified for Class I, Division 1; Zone 1; or Zone 0 locations.~~

**6.5.5.1**

~~For checkweighers located within Class I, Division 1 or Class I, Zone 1 locations shall be classified for that location.~~

**Supplemental Information**

| <u>File Name</u>            | <u>Description</u>        | <u>Approved</u> |
|-----------------------------|---------------------------|-----------------|
| 30B_SR15_Section_6.5.5.docx | Revision to Section 6.5.5 |                 |

**Submitter Information Verification**

**Committee:** AER-AAA  
**Submittal Date:** Thu Jul 24 08:23:30 EDT 2025

**Committee Statement**

**Committee Statement:** The Class I liquid terminology was revised to align with NFPA 30. The prefix Class I in front of Zone 2 is redundant according to NFPA 70 and was deleted. The revisions clarify that the checkweigher needs to be rated for Class I, Division 2 or Zone 2 locations. Additionally, the revision clarifies if the equipment is in the propellant charging room (gas house) then it needs to be rated for that location.

**Response Message:** SR-15-NFPA 30B-2025

[Public Comment No. 11-NFPA 30B-2025 \[Section No. 6.5.5.1\]](#)  
[Public Comment No. 10-NFPA 30B-2025 \[Section No. 6.5.5 \[Excluding any Sub-Sections\]\]](#)



## Second Revision No. 12-NFPA 30B-2025 [ Section No. 6.5.6 ]

### 6.5.6

For aerosol leak detection equipment used with products containing flammable gases or Class I liquids [FP <37.8°C (100°F)] (as defined in NFPA 30), the following area classification requirements shall apply:

- (1) ~~When outside a Class I Division 1 or Class I, Zone 1 area, the area~~ The area enclosed by the leak detection equipment and the area within 1.5 m (5 ft) in all directions shall be classified as a Class I, Division 2 or ~~Class I, Zone 2~~ location.
- (2) ~~If the leak~~ Leak detection equipment is located in a propellant charging room (gas house) shall be classified for Class I, Division 1; ~~or Class I, Zone 1; area, the leak detection equipment area classification shall be the same as the area it is within~~ or Zone 0 locations.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Wed Jul 23 07:58:02 EDT 2025

## Committee Statement

**Committee Statement:** The Class I liquid terminology was revised to align with NFPA 30. The prefix Class I in front of Zone 2 is redundant according to NFPA 70 and was deleted. The revision clarifies that the leak detection equipment needs to be rated for Class I, Division 2 or Zone 2 locations. Additionally, the revision clarifies that if the equipment is in the propellant charging room (gas house) then it needs to be rated for that location.

**Response Message:** SR-12-NFPA 30B-2025

[Public Comment No. 12-NFPA 30B-2025 \[Section No. 6.5.6\]](#)

**Second Revision No. 16-NFPA 30B-2025 [ Section No. 6.15.1.5.1 ]****6.15.1.5.1**

Where flammable liquefied gas propellants are transferred or vented inside a laboratory hood or where flammable propellant vapors are present under normal operating conditions, the interior of the laboratory hood shall be electrically classified as Class I, Division 1; ~~or Zone 1; or Zone 0~~ with respect to *NFPA 70*.

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 24 08:46:53 EDT 2025

**Committee Statement**

**Committee Statement:** Revision added Zone 1 for consistency with requirements in the document (Sections 6.5 and 9.5) and also added Zone 0 which is encompassed within Class I, Division 1 locations.

**Response Message:** SR-16-NFPA 30B-2025

Public Comment No. 13-NFPA 30B-2025 [Section No. 6.15.1.5.1]

**Second Revision No. 20-NFPA 30B-2025 [ New Section after 6.15.4 ]**

**6.16\*** Industrial Spray Adhesive and Expanding Foam Products Packaged in Pressurized Cylinders Larger Than 1000 ml (33.8 fl oz).

**A.6.16**

Products covered in Section 6.16 include industrial spray adhesive and expanding foam products packaged in pressurized cylinders larger than 1000 ml (33.8 fl oz). These products and containers do not meet the definition of aerosol products and are larger than the maximum capacity of aerosol containers. Industrial spray adhesive products are commonly used in the application of roofing membranes and other construction materials. Expanding foam products include expanding insulation foam products that are applied in industrial, commercial, and residential occupancies.

**6.16.1**

Where only pressurized cylinders larger than 1000 ml (33.8 fl oz) are filled in the propellant charging and pump room, the exceptions outlined in 6.16.1.1 through 6.16.1.5 shall apply.

**6.16.1.1\* Ventilation.****A.6.16.1.1**

The charging of aerosol product containers results in the release of a small amount of liquefied gas propellant (typically 1–3 cc) for each container charged. The charging of pressurized cylinders with ignitable (flammable or combustible) liquids and liquefied gases for the products included in the scope of 6.16.1.1 results in much lower vapor release volumes. In addition, the risk of leakage or rupture of these pressurized cylinders during the charging process is much lower than when charging aerosol containers. Due to these considerations, exhaust ventilation rates are permitted to be reduced when aerosol containers are not filled in the occupancy.

**6.16.1.1.1\***

The rate of normal mechanical ventilation shall be a minimum of 304 lpm/m<sup>2</sup> (1 cfm/ft<sup>2</sup>) of floor area.

**A.6.16.1.1.1**

For high-speed charging operations, the volume of flammable vapors released might require higher exhaust ventilation rates. See the calculations below for an example of the ventilation rate vs. propellant release rate of the typical charging operation for industrial spray adhesives and expanding foam products.

**Example ventilation/gas release calculation to maintain 10 percent LEL****Ventilation rate example per proposed code:**

Assume a 3 m x 3 m (10 ft x 10 ft) filling room:

$$3 \text{ m} \times 3 \text{ m} (10 \text{ ft} \times 10 \text{ ft}) \text{ floor area} = 9.3 \text{ m}^2 (100 \text{ ft}^2)$$

$$9.3 \text{ m}^2 (100 \text{ ft}^2) \text{ floor area} \times 304 \text{ lpm/m}^2 (1 \text{ cfm/ft}^2) \text{ of floor area} = 2.83 \text{ m}^3/\text{min} (100 \text{ ft}^3/\text{min})$$

**Maximum propellant gas release rate for 10 percent LEL**

LEL for isobutane is 1.8 percent

$$2.83 \text{ m}^3 (100 \text{ ft}^3/\text{min}) \times 0.018 = 0.05 \text{ m}^3/\text{min} (1.8 \text{ ft}^3/\text{min}) \text{ of gas release to reach LEL}$$

$$0.05 \text{ m}^3/\text{min} (1.8 \text{ ft}^3/\text{min}) \text{ gas release} \times 0.1 = 0.005 \text{ m}^3/\text{min} (0.18 \text{ ft}^3/\text{min}) \text{ maximum gaseous propellant release at } 2.83 \text{ m}^3 (100 \text{ ft}^3/\text{min}) \text{ ventilation rate maintaining 10 percent LEL}$$

**Maximum liquid propellant release rate expressed in milliliters**

$$0.005 \text{ m}^3/\text{min} (0.18 \text{ ft}^3/\text{min}) \text{ gaseous propellant} \times 28,317 \text{ ml/ft}^3 (33,820 \text{ fl oz/m}^3) = 5097 \text{ ml/min} (172 \text{ fl oz/min}) \text{ gaseous propellant}$$

Expansion rate of isobutane is 234:1 maximum from liquid to gas

$$5097 \text{ ml/min} (172 \text{ fl oz/min}) \text{ gas divided by } 234 = 21.8 \text{ ml/min} (0.73 \text{ fl oz/min}) \text{ maximum liquefied propellant release at } 2.83 \text{ m}^3 (100 \text{ ft}^3/\text{min}) \text{ ventilation rate maintaining 10 percent LEL}$$

**Factors affecting a warning alarm at 10 percent LEL**

The above calculation assumes a steady release of propellant over time. In practice, sudden releases of propellant occur when filling hose connections are disengaged. Depending on the ventilation mixing efficiency and proximity of gas detection, these sudden releases could cause a temporary alarm at 10 percent or even 20 percent LEL. These alarms can be mitigated by using automatic shutoff valves at the connection points or by purging the filling lines with inert gas prior to disconnection. In addition, any other points of gas release or leaks should be eliminated.

**6.16.1.1.2**

The emergency ventilation rate shall be at least two times the normal ventilation rate.

**6.16.1.1.3**

The mechanical ventilation system shall be interlocked with the gas detection system.

**6.16.1.2\* Deflagration Suppression System.**

**A.6.16.1.2**

A deflagration suppression system meeting the requirements of NFPA 69 is recommended for added safety. However, the system might be considered optional when aerosol containers are not filled in the propellant charging and pump room utilized for cylinder filling operations.

This recommendation is supported by the lack of additional testing or verification as to the actual hazard that is presented inside these areas. The risk associated with an upset condition, such as a cylinder releasing a large amount of propellant into the room that is then ignited, is unknown and requires further testing. Where the AHJ deems the area to be a deflagration hazard with life safety concerns, or where the area has demonstrated a history of sufficient leakage rates to create a localized deflagration hazard, a deflagration suppression system meeting the requirements of NFPA 69 should be installed.

Deflagration protection provides the only means of optical detection, which can lead to a shutdown of the process in accordance with 6.16.1.3. For proper safety, the process should be shut down if there is optical detection of flames in the room.

**6.16.1.2.1**

Where only pressurized cylinders larger than 1000 ml (33.8 fl oz) are filled in a propellant charging room, a deflagration suppression system shall be permitted to be used in accordance with NFPA 69.

**6.16.1.2.2**

Where a deflagration suppression system is not installed, an approved optical flame detection system shall be installed. (See Table 6.16.1.3.)

**6.16.1.3\* Equipment Interlocks.**

Equipment shall be interlocked so that the system inputs listed in Table 6.16.1.3 result in the associated process equipment responses.

Table 6.16.1.3 Equipment Interlocks

| <u>System Inputs</u>                                         | <u>Process/Equipment Response</u>                                    |                                        |                                        |                                  |                    |                                  |                                   |
|--------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------|--------------------|----------------------------------|-----------------------------------|
|                                                              | <u>Propellant and Ignitable Liquids Supply Shutdown</u> <sup>1</sup> | <u>Propellant Venting</u> <sup>1</sup> | <u>Container Filling Line Shutdown</u> | <u>Audible and Visual Alarms</u> | <u>Fire Alarms</u> | <u>Standard Ventilation Rate</u> | <u>Emergency Ventilation Rate</u> |
| <u>Gas detection at 10% LEL</u>                              | <u>NR</u>                                                            | <u>NR</u>                              | <u>NR</u>                              | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>On</u>                         |
| <u>Gas detection at 20% LEL</u>                              | <u>Yes</u>                                                           | <u>NR</u>                              | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>On</u>                         |
| <u>Loss of ventilation</u>                                   | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>NA</u>                         |
| <u>Emergency stop</u>                                        | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>On</u>                         |
| <u>Deflagration suppression system disarm or trouble*</u>    | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>On</u>                        | <u>NA</u>                         |
| <u>Halon 1301 deflagration suppression system actuation*</u> | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>Yes</u>         | <u>Off</u>                       | <u>Off</u>                        |
| <u>Water deflagration suppression system actuation*</u>      | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>Yes</u>         | <u>NA</u>                        | <u>On</u>                         |
| <u>Optical flame detection alarm**</u>                       | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>Yes</u>         | <u>NA</u>                        | <u>On</u>                         |
| <u>Loss of power</u>                                         | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>NA</u>                         |
| <u>Gas detection system fault</u>                            | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>NR</u>          | <u>NA</u>                        | <u>On</u>                         |
| <u>Automatic sprinkler actuation</u>                         | <u>Yes</u>                                                           | <u>Yes</u>                             | <u>Yes</u>                             | <u>Yes</u>                       | <u>Yes</u>         | <u>NA</u>                        | <u>NA</u>                         |

NR =Not required.

NA = Not applicable.

1 = Applies to flammable liquefied gas propellants.

\* If installed.

\*\*Where installed as an alternative to a deflagration suppression system.

A.6.16.1.3

In consideration of reduced permitted ventilation rates, system inputs for gas detection were lowered to 10 and 20 percent, respectively, to provide quicker response for gas detection and ventilation system interlocks. Where deflagration suppression systems are not installed, an optical flame detection system and corresponding notification output should be installed.

**6.16.1.4\*** Control of Static Electricity.

Pressurized cylinders larger than 1000 ml (33.8 fl oz) shall be bonded and grounded during the container filling process.

A.6.16.1.4

A bonding and grounding verification system should be considered. See NFPA 77 for additional information.

**6.16.1.5** Combustible Gas Detection Systems.

Where ventilation rates conform with 6.16.1.1, safety interlock system inputs shall be reduced to 10 percent LEL for activation of emergency ventilation and 20 percent LEL for automatic discontinuation of container filling operations.

Supplemental Information

| <u>File Name</u>                                | <u>Description</u>                | <u>Approved</u> |
|-------------------------------------------------|-----------------------------------|-----------------|
| 30B_SR20_New_Section_6.16_and_Table_6.16.3.docx | New Section 6.16 and Table 6.16.3 |                 |

Submitter Information Verification

**Committee:** AER-AAA  
**Submittal Date:** Thu Jul 24 15:30:01 EDT 2025

Committee Statement

**Committee Statement:** The NFPA Standards Council charged the Technical Committee on Aerosol Products (NFPA 30B Technical Committee) with the task of proposing safety guidelines for spray adhesive and expanding insulation foam products packaged in pressurized cylinders. Since these products are packaged in containers that are larger than the maximum size of 1000 ml prescribed in NFPA 30B for aerosol products, the Technical Committee established a Task Group on Spray Adhesives and Expanding Insulation Foam Products in Pressurized Containers. New Section 6.16 and Table 6.16.1.3 were added to provide guidance for filling operation associated with these products. These requirements recognize that the filling operations for these products tend to be manual as opposed to high-speed filling that is done with aerosol products.

**Response Message:** SR-20-NFPA 30B-2025

[Public Comment No. 1-NFPA 30B-2025 \[New Section after 6.15\]](#)  
[Public Comment No. 4-NFPA 30B-2025 \[New Section after 6.15.4\]](#)



## Second Revision No. 17-NFPA 30B-2025 [ Section No. 9.5.1.2.4.3 ]

### 9.5.1.2.4.3

Areas within 5 m (15 ft) of outdoor storage shall have an electrical classification of NEC Class I, Division 2; or Zone 2; ~~per~~ in accordance with Articles 500, 501, 504, or 505 of *NFPA 70*.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 24 08:49:08 EDT 2025

## Committee Statement

**Committee Statement:** Revision made to be consistent with requirement language in Section 9.5.1.2.4.4.

**Response Message:** SR-17-NFPA 30B-2025

Public Comment No. 14-NFPA 30B-2025 [Section No. 9.5.1.2.4.3]



## Second Revision No. 18-NFPA 30B-2025 [ Section No. 9.5.1.2.4.4 ]

### 9.5.1.2.4.4

Indoor storage areas shall have an electrical classification of NEC Class I, Division 1; ~~or Zone 1;~~  
or Zone 0 in accordance with Articles 500, 501, 504, and 505 of *NFPA 70*.

### Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 24 08:50:54 EDT 2025

### Committee Statement

**Committee Statement:** Revision adds Zone 0 because it is encompassed within Class I, Division 1 locations.

**Response Message:** SR-18-NFPA 30B-2025

Public Comment No. 16-NFPA 30B-2025 [Section No. 9.5.1.2.4.4]



## Second Revision No. 14-NFPA 30B-2025 [ Section No. J.1.1 ]

### K.1.1 NFPA Publications.

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

NFPA 10, *Standard for Portable Fire Extinguishers*, 2026 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2025 edition.

NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*, 2027 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2027 edition.

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, 2024 edition.

NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, 2026 edition.

NFPA 58, *Liquefied Petroleum Gas Code*, 2024 edition.

NFPA 68, *Standard on Explosion Protection by Deflagration Venting*, 2023 edition.

NFPA 69, *Standard on Explosion Prevention Systems*, 2024 edition.

NFPA 70<sup>®</sup>, *National Electrical Code*<sup>®</sup>, 2026 edition.

NFPA 77, *Recommended Practice on Static Electricity*, 2024 edition.

NFPA 80A, *Recommended Practice for Protection of Buildings from Exterior Fire Exposures*, 2027 edition.

NFPA 91, *Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids*, 2026 edition.

NFPA 400, *Hazardous Materials Code*, 2025 edition.

NFPA 497, *Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas*, 2027 edition.

NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*, 2027 edition.

*Fire Protection Handbook*, 21st edition, 2023.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 24 08:12:45 EDT 2025

## Committee Statement

**Committee Statement:** NFPA 70 added to the NFPA Publications as it is now referenced in the annex with second revisions 5, 7, and 8.

**Response Message:** SR-14-NFPA 30B-2025



## Second Revision No. 3-NFPA 30B-2025 [ Section No. J.1.2 ]

### K.1.2 Other Publications.

#### K.1.2.1 ANSI Publications.

American National Standards Institute, Inc., 1180 Avenue of the Americas, 10th Floor, New York, NY 10036.

ANSI/ISA 60079-10-1 (12.24.01), *Explosive Atmospheres — Part 10-1: Classification Of Areas — Explosive Gas Atmospheres*, 2014.

#### K.1.2.2 API Publications.

American Petroleum Institute, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001-5571.

ANSI/API RP 505, *Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2*, 2025.

#### K.1.2.3 ASTM Publications.

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

ASTM D92, *Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester*, ~~2018~~ 2024.

ASTM D240, *Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter*, 2019.

#### K.1.2.4 CGA Publications.

Compressed Gas Association, 8484 Westpark Drive, Suite 220, McLean, VA 22102.

CGA G-4.1, *Cleaning Equipment for Oxygen Service*, 2018.

#### K.1.2.5 FM Publications.

FM, 270 Central Avenue, Johnston, RI 02919.

FM Memorandum, "Aerosol Cooking Spray Fire Test Summary," 2009.

FM Memorandum, "Aerosol Cooking Oil Sprays Protection," 2013.

FM Technical Report, "Full-Scale Fire Tests: Sprinkler Protection for Rack Storage of Plastic-Wrapped (Uncartoned) Aerosols," 2005.

#### K.1.2.6 HCPA Publications.

Household and Commercial Products Association, 1625 I Street, NW, Suite 700, Washington, DC 20006.

*Aerosol Propellants: Considerations for Effective Handling in the Aerosol Plant and Laboratory*, 4th edition, 2016.

"An Industry Responds: A Technical History of the CSMA Aerosol Warehouse Storage Fire Protection Research Program." *Chemical Times & Trends, the Journal of the Chemical Specialties Manufacturers Association*, January and April 1988.

#### K.1.2.7 SFPE Publications.

Society of Fire Protection Engineers, 9711 Washingtonian Boulevard, Suite 380, Gaithersburg, MD 20878.

Hurley, M., et al. *SFPE Handbook of Fire Protection Engineering*, 5th edition, ~~2016~~ 2025.

**K.1.2.8** UL Publications.

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

“Large Drop Sprinkler Protection of Palletized Storage of Aerosols in Plastic Containers on Wood Pallets Testing Result,” 2009.

“Palletized Plastic Aerosol Storage Testing Result,” 2008.

**K.1.2.9** US Government Publications.

US Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401.

Title 16, Code of Federal Regulations, Part 1500, “Hazardous Substances and Articles: Administration and Enforcement Regulations.”

Title 21, Code of Federal Regulations, “Food and Drugs.”

Title 29, Code of Federal Regulations, Part 1910, “Occupational Safety and Health Standards.”

Title 40, Code of Federal Regulations, Part 162, “State Registration of Pesticide Products.”

Title 49, Code of Federal Regulations, “Transportation.”

**K.1.2.10** Other Publications.

Perry, R. H., and D. W. Green, *Perry’s Chemical Engineers’ Handbook*, 9th edition, McGraw Hill, New York, NY, 2018.

**Submitter Information Verification**

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 03 13:05:40 EDT 2025

**Committee Statement**

|                             |                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Committee Statement:</b> | Revisions to update edition years of Other Publications. Revision also added ANSI and API publications. |
| <b>Response Message:</b>    | SR-3-NFPA 30B-2025                                                                                      |



## Second Revision No. 4-NFPA 30B-2025 [ Section No. J.3 ]

### K.3 References for Extracts in Informational Sections.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, ~~2022~~ 2025 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2024 edition.

NFPA 77, *Recommended Practice on Static Electricity*, 2024 edition.

## Submitter Information Verification

**Committee:** AER-AAA

**Submittal Date:** Thu Jul 03 13:09:55 EDT 2025

## Committee Statement

**Committee Statement:** Revision to update edition year of NFPA 13 in References for Extracts in Informational Sections.

**Response Message:** SR-4-NFPA 30B-2025