Public Input No. 24-NFPA 407-2019 [Global Input]

Annex C - Clarification of Retroactivity

In the 2017 edition of this standard, a retroactivity section was added in Chapter 1. The Technical Committee on Aircraft Fuel Servicing recognized that while many changes were needed in this standard, requiring existing facilities and equipment to comply with the new requirements would not be feasible for a variety of reasons, both technical end economic. The addition of the retroactivity section allowed necessary updates to be made to the standard, while permitting existing equipment to continue to operate safely.

One impact for the enforcer community has been in determining when certain requirements became effective, and what constitutes “new” versus “existing” equipment. This Annex lists changes to the Design and Construction sections of each Chapter – 4.1, 5.1, 6.1, 7.1, and 8.1 – and the effective date of the change. Equipment and installations permitted or built prior to the effective date of the listed change would not be required to meet the new criteria.

All requirements of the 2012 edition, and all prior editions, apply to all existing equipment, facilities, and installations.

New requirements in NFPA 407, 2017 edition, effective date of June 2, 2016

1.3 Retroactivity section

4.1.8.2 Filter vessels used in aviation fuel service shall have a functional automatic air vent (AAV) or automatic air eliminator (AAE)

4.1.8.3 The AAV or AAE shall discharge to a closed system

4.1.10.1 During fueling operations, fire extinguishers shall be available on aircraft servicing ramps or aprons, in accordance with NFPA 410.

4.1.10.3 ABC multipurpose dry chemical fire extinguishers (ammonium phosphate) shall not be placed on aircraft fueling vehicles, airport fuel servicing ramps or aprons, or at airport fuel facilities that are located within 150 m (500 ft) of aircraft operating areas.

5.1.1.6.3.2 For additions or modifications to existing airport fuel piping systems, hydrostatic testing of new piping prior to final tie-in to existing piping shall be permitted, with final closure (tie-in) welds examined in-process in accordance with ASME B31.3.

5.1.3.4 Piping, valves, and fittings shall be of steel or stainless steel, suitable for aviation fuel service and designed for the working pressure and mechanically and thermally produced structural stresses to which they could be subjected and shall comply with ASME B31.3.

5.1.3.10.1 Flanges shall be rated to the ANSI pressure class suitable to the fuel system working pressures but in no cases shall be less than Class 150.

5.1.3.10.2 Joints [and flanges] shall be installed so that the mechanical strength of the joint will not be impaired if exposed to fire. [30:27.5.1.2]

5.1.9.9 Emergency fuel shutoffs shall not be located beneath piping, pumps, vents, or other components containing fuel or fuel vapors.

5.1.10 At least one fire extinguisher with a minimum rating of 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be provided at each fueling vehicle loading position or rack.

5.1.11.1 Emergency fuel shutoff signs shall be located at least 2.1 m (7 ft) above grade, measured to the bottom of the placard.

5.1.11.2 Emergency fuel shutoff signs shall be positioned so that they can be seen readily from a distance of at least 15.2 m (50 ft).

5.1.11.5 Fuel transfer piping shall be marked in accordance with EI 1542 as to the product type conveyed through the pipe and the proper direction of flow of the product.

5.1.12.1 The loading rack shall be equipped with an automatic shutdown system that stops the tank loading operation when the fuel servicing vehicle tank is full.

5.1.12.2 All fuel servicing tank vehicle primary shutdown systems shall be compatible with the system utilized at the loading rack.

5.1.12.3 The automatic secondary shutoff control shall not be used for normal filling control

6.1.3.6 Product piping shall be metal and rated for the system working pressure or at least 1030 kPa (150 psi), whichever is greater.

6.1.3.12.2.7 The cargo tank vehicle shall be equipped with an automatic primary shutdown system that stops the tank loading operation when the tank is full, unless an automatic shutdown is provided on the loading rack in accordance with 5.1.12.

6.1.6.2.4 The vehicle shall be equipped with a battery disconnect switch.

6.1.10.1 Each aircraft fuel servicing tank vehicle shall have two listed fire extinguishers, each having a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent, with one extinguisher mounted on each side of the vehicle

6.1.10.2 One listed fire extinguisher having a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be installed on each hydrant fuel servicing vehicle or cart.

6.1.11.6 Hazardous material placards meeting the requirements of 49 CFR 172.504 or equivalent shall be displayed on all four sides of fuel servicing tank vehicles.

6.1.12.7.2 A light to indicate activation of the override shall be located in the cabin and visible outside.

6.1.12.7.3 The override control shall be secured in the normal position with a breakaway seal.

6.1.12.7.4 The override control shall deactivate the fueling system.

6.1.13.6 Carbureted gasoline-powered engines on fuel servicing vehicles shall be provided with flame- and spark-arresting exhaust systems.

6.1.13.7 Non-turbo-charged diesel engines on fuel servicing vehicles shall be equipped with flame- and spark-arresting exhaust systems.

7.1.1.1.4 In addition to the special requirements of this chapter, the fuel storage, piping, and dispensing system shall comply with the requirements of NFPA 30 and with applicable portions of this standard.

7.1.9.2 An additional emergency fuel shutoff station shall be located at ground level and shall be located at least 3 m (10 ft) from the pump but no further than 6 m (20 ft).

8.1.9.2 The emergency fuel shutoff controls shall be installed in a location acceptable to the authority having jurisdiction and shall be more than 6 m (20 ft) but less than 30 m (100 ft) from the dispensers.

8.1.10.2 At least one fire extinguisher with a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be provided at each emergency fuel shutoff control.

Additional Proposed Changes

File Name	Description	Approved
407_Annex_C_PI.docx	Word doc with Annex text	

Statement of Problem and Substantiation for Public Input

The addition of Section 1.3, Retroactivity, in the 2017 edition has caused many AHJs to enforce "new" requirements on "existing" equipment and facilities. The purpose of the retroactivity section was to allow upgrades to new equipment, with a general phase-in of new requirements as equipment and facilities were upgraded or replaced over time. The response from the enforcer community has been that they are unable to determine which requirements are new and which were existing, and what would apply during future editions. This PI seeks to add a new Annex, which will list changes associated with the editions when the change became effective. This will permit AHJs and others to determine which requirements may apply in a given circumstance. It is anticipated that this list

will continue to be populated with future editions.

Submitter Information Verification

Submitter Full Name: Jeremy Souza
Organization:
Street Address:
City:
State:
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Submittal Date: Thu Feb 14 21:18:07 EST 2019
Committee:

Committee Statement

Resolution: FR-1-NFPA 407-2019

Statement: The addition of Section 1.3, Retroactivity, in the 2017 edition has caused many AHJs to enforce "new" requirements on "existing" equipment and facilities. The purpose of the retroactivity section was to allow upgrades to new equipment, with a general phase-in of new requirements as equipment and facilities were upgraded or replaced over time. The response from the enforcer community has been that they are unable to determine which requirements are new and which were existing, and what would apply during future editions. This PI seeks to add a new Annex, which will list changes associated with the editions when the change became effective. This will permit AHJs and others to determine which requirements may apply in a given circumstance. It is anticipated that this list will continue to be populated with future editions.

In the 2017 edition of this standard, a retroactivity section was added in Chapter 1. The Technical Committee on Aircraft Fuel Servicing recognized that while many changes were needed in this standard, requiring existing facilities and equipment would not be feasible for a variety of reasons, both technical end economic. The addition of the retroactivity section allowed necessary updates to be made to the standard, while permitting existing equipment to continue operating.

One impact for the enforcement community has been in determining when certain requirements became effective, and what constitutes "new" versus "existing" equipment. This Annex lists changes to the Design and Construction sections of each Chapter – 4.1, 5.1, 6.1, 7.1, and 8.1 – and the effective date of the change. Equipment and installations permitted or built prior to the effective date of the listed change would not be required to meet the new criteria.

All requirements of the 2012 edition, and all prior editions, apply to all equipment, facilities, and installations.

New requirements in NFPA 407, 2017 edition, effective date of June 2, 2016

Section	Requirement
1.3	Retroactivity section
4.1.8.2	Filter vessels used in aviation fuel service shall have a functional automatic air vent (AAV) or automatic air eliminator (AAE)
4.1.8.3	The AAV or AAE shall discharge to a closed system
4.1.10.1	During fueling operations, fire extinguishers shall be available on aircraft servicing ramps or aprons, in accordance with NFPA 410.
4.1.10.3	ABC multipurpose dry chemical fire extinguishers (ammonium phosphate) shall not be placed on aircraft fueling vehicles, airport fuel servicing ramps or aprons, or at airport fuel facilities that are located within 150 m (500 ft) of aircraft operating areas.
5.1.1.6.3.2	For additions or modifications to existing airport fuel piping systems, hydrostatic testing of new piping prior to final tie-in to existing piping shall be permitted, with final closure (tie-in) welds examined in-process in accordance with ASME B31.3.
5.1.3.4	Piping, valves, and fittings shall be of steel or stainless steel, suitable for aviation fuel service and designed for the working pressure and mechanically and thermally produced structural stresses to which they could be subjected and shall comply with ASME B31.3.
5.1.3.10.1	Flanges shall be rated to the ANSI pressure class suitable to the fuel system working pressures but in no cases shall be less than Class 150.
5.1.3.10.2	Joints [and flanges] shall be installed so that the mechanical strength of the joint will not be impaired if exposed to fire. [30:27.5.1.2]
5.1.9.9	Emergency fuel shutoffs shall not be located beneath piping, pumps, vents, or other components containing fuel or fuel vapors.
5.1.10	At least one fire extinguisher with a minimum rating of 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be provided at each fueling vehicle loading position or rack.
5.1.11.1	Emergency fuel shutoff signs shall be located at least 2.1 m (7 ft) above grade, measured to the bottom of the placard.
5.1.11.2	Emergency fuel shutoff signs shall be positioned so that they can be seen readily from a distance of at least 15.2 m (50 ft).

5.1.11.5	Fuel transfer piping shall be marked in accordance with EI 1542 as to the product type conveyed through the pipe and the proper direction of flow of the product.
5.1.12.1	The loading rack shall be equipped with an automatic shutdown system that stops the tank loading operation when the fuel servicing vehicle tank is full.
5.1.12.2	All fuel servicing tank vehicle primary shutdown systems shall be compatible with the system utilized at the loading rack.
5.1.12.3	The automatic secondary shutoff control shall not be used for normal filling control
6.1.3.6	Product piping shall be metal and rated for the system working pressure or at least 1030 kPa (150 psi), whichever is greater.
6.1.3.12.2.7	The cargo tank vehicle shall be equipped with an automatic primary shutdown system that stops the tank loading operation when the tank is full, unless an automatic shutdown is provided on the loading rack in accordance with 5.1.12.
6.1.6.2.4	The vehicle shall be equipped with a battery disconnect switch.
6.1.10.1	Each aircraft fuel servicing tank vehicle shall have two listed fire extinguishers, each having a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent, with one extinguisher mounted on each side of the vehicle
6.1.10.2	One listed fire extinguisher having a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be installed on each hydrant fuel servicing vehicle or cart.
6.1.11.6	Hazardous material placards meeting the requirements of 49 CFR 172.504 or equivalent shall be displayed on all four sides of fuel servicing tank vehicles.
6.1.12.7.2	A light to indicate activation of the override shall be located in the cabin and visible outside.
6.1.12.7.3	The override control shall be secured in the normal position with a breakaway seal.
6.1.12.7.4	The override control shall deactivate the fueling system.
6.1.13.6	Carbureted gasoline-powered engines on fuel servicing vehicles shall be provided with flame- and spark-arresting exhaust systems.
6.1.13.7	Non-turbo-charged diesel engines on fuel servicing vehicles shall be equipped with flame- and spark-arresting exhaust systems.
7.1.1.1.4	In addition to the special requirements of this chapter, the fuel storage, piping, and dispensing system shall comply with the requirements of NFPA 30 and with applicable portions of this standard.
7.1.9.2	An additional emergency fuel shutoff station shall be located at ground level and shall be located at least 3 m (10 ft) from the pump but no further than 6 m (20 ft).
8.1.9.2	The emergency fuel shutoff controls shall be installed in a location acceptable to the authority having jurisdiction and shall be more than 6 m (20 ft) but less than 30 m (100 ft) from the dispensers.
8.1.10.2	At least one fire extinguisher with a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be provided at each emergency fuel shutoff control.

Public Input No. 27-NFPA 407-2019 [Global Input]

Remove the terms “Standard for” or “Subject” from in front of all UL standards referenced in NFPA 407

Statement of Problem and Substantiation for Public Input

The terms are redundant and unnecessary. All references to UL are standards.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Fri Jun 14 15:12:39 EDT 2019
Committee:

Committee Statement

Resolution: The title of UL documents referenced in this standard include the term "Standard for" and should be called out appropriately.

Public Input No. 28-NFPA 407-2019 [Global Input]

Remove ANSI from in front of all UL standards referenced in NFPA 407.

Statement of Problem and Substantiation for Public Input

Many years ago, UL preferred the ANSI/UL reference because there was a transition of traditional UL standards towards an ANSI standards development process.

Now, years later, a large majority of UL Standards are ANSI approved and follow the ANSI development and maintenance process. However, sometimes readers are confused because they don't understand the standards are actually UL standards, not developed by ANSI. There are many other references to standards promulgated by other standards development organizations where they are considered ANSI approved but do not include ANSI in the reference.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Fri Jun 14 15:14:19 EDT 2019
Committee:

Committee Statement

Resolution: FR-2-NFPA 407-2019

Statement: Many years ago, UL preferred the ANSI/UL reference because there was a transition of traditional UL standards towards an ANSI standards development process.

Now, years later, a large majority of UL Standards are ANSI approved and follow the ANSI development and maintenance process. However, sometimes readers are confused because they don't understand the standards are actually UL standards, not developed by ANSI. There are many other references to standards promulgated by other standards development organizations where they are considered ANSI approved but do not include ANSI in the reference.

Public Input No. 29-NFPA 407-2019 [Section No. 2.3.6]

2.3.6 UL Publications.

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

ANSI/UL 913, *Standard for Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III Division 1, Hazardous (Classified) Locations*, 8th edition, 2013, revised 2019 .

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 30-NFPA 407-2019 [Section No. C.1.2.13]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Fri Jun 14 15:15:57 EDT 2019
Committee: AIF-AAA

Committee Statement

Resolution: FR-3-NFPA 407-2019
Statement: Update the publishing dates for each of the UL standards listed to reflect the most up to date edition

Public Input No. 15-NFPA 407-2017 [New Section after 3.3.22]

3.3.XX Loading Rack.

A fixed site utilized for filling or emptying aircraft fuel servicing tank vehicle cargo tanks, excluding aicraft fuel servicing.

Statement of Problem and Substantiation for Public Input

Defines loading rack as used in other sections of the standard.

Submitter Information Verification

Submitter Full Name: Jeremy Souza
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Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 30 09:56:45 EDT 2017
Committee:

Committee Statement

Resolution: FR-4-NFPA 407-2019
Statement: Defines loading rack as used in other sections of the standard.

Public Input No. 9-NFPA 407-2017 [New Section after 3.3.23]

3.3.24 Operator Control Station. A shelter designed for constant occupancy by an attendant who oversees the operation of a fuel facility.

Statement of Problem and Substantiation for Public Input

Defines the term "Operator control station" as used in a Public Input revising 5.1.9.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 8-NFPA 407-2017 [Section No. 5.1.9.1]	

Submitter Information Verification

Submitter Full Name: Jeremy Souza
Organization: Rhode Island Airport Corporati
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 28 10:27:02 EDT 2017
Committee:

Committee Statement

Resolution: This term is not used within the standard. The PI that attempted to insert this language was resolved.

Public Input No. 8-NFPA 407-2017 [Section No. 5.1.9.1]

5.1.9.1– **Emergency Fuel Shutoff Locations.** Emergency Fuel Shutoff systems shall include activation stations in locations in accordance with 5.1.9.1.1 through 5.1.9.1.4.

5.1.9.1.1 Each tank vehicle loading station shall be provided with an emergency fuel shutoff system, in addition to the deadman control required by 5.1.7.4.

5.1.9.1.2 At least one shutoff station shall be accessible to each fueling vehicle loading position or aircraft fueling position.

5.1.9.1.3 Stations shall be located outside of probable spill areas and near the route that normally is used to leave the spill area or to reach the fire extinguishers provided for the protection of the area.

5.1.9.1.4 If an operator control station is provided, at least one shutoff station shall be located in an approved location within the operator control station.

Statement of Problem and Substantiation for Public Input

Editorial changes to consolidate the locations of EFSO activation stations.

The requirement for an ESFO activation station was added. While many larger facilities have a dedicated facility operator control station, such as a shed or control room, there is no requirement in NFPA 407 or NFPA 30 to have an EFSO in the control station accessible by the operator. If the facility has a dedicated operator or attendant, the main job of that attendant is to shut the facility down to mitigate an emergency situation. The attendant should have an ESFO immediately accessible to do that.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 9-NFPA 407-2017 [New Section after 3.3.23]	

Submitter Information Verification

Submitter Full Name: Jeremy Souza
Organization: Rhode Island Airport Corporati
Street Address:
City:
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Submittal Date: Fri Apr 28 10:10:39 EDT 2017
Committee:

Committee Statement

Resolution: The addition of this requirement would add redundancy and confusion because its not specific enough as to what the shelter is exactly is and is not.

Public Input No. 10-NFPA 407-2017 [Section No. 5.1.10]

5.1.10 Fire Protection.

At least one fire extinguisher, with a minimum rating of 80-B:C or a large capacity extinguisher with a minimum rating of 60-B:C , shall be provided at each fueling vehicle loading position or rack.

Statement of Problem and Substantiation for Public Input

Since the revision of this requirement from 20-B:C to 80-B:C in the 2017 edition, it has been found in the field that many jurisdictions require "high capacity" or "high flow" extinguishers to protect fuel facilities and/or vehicles, following the requirements of NFPA 10-6.3.2 (liquids of appreciable depth). A nominal 20 pound extinguisher with a high capacity listing is a 60-B:C extinguisher, which is capable of, but not listed to, 120-B:C. These "high capacity" extinguishers should be considered acceptable by this standard.

Submitter Information Verification

Submitter Full Name: Jeremy Souza
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Submittal Date: Fri Jun 16 14:31:55 EDT 2017
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic.

Public Input No. 13-NFPA 407-2017 [Section No. 5.1.10]

5.1.10* Fire Protection.

At least one fire extinguisher, with a minimum rating of 80-B:C, shall be provided at each fueling vehicle loading position or rack.

Statement of Problem and Substantiation for Public Input

Annex material added

Submitter Information Verification

Submitter Full Name: Jeremy Souza
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Street Address:
City:
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Submittal Date: Fri Jun 16 14:48:30 EDT 2017
Committee:

Committee Statement

Resolution: Unnecessary editorial change

Public Input No. 18-NFPA 407-2018 [Section No. 5.1.10]

5.1.10 Fire Protection.

At least one fire extinguisher, with a minimum rating of 40-B:C and ~~a minimum capacity of 9.0 kg (20 lb) of dry chemical agent~~ an adequate capacity to store the required amount of dry chemical agent to obtain the B:C rating, shall be provided at each fueling vehicle loading position or rack.

Statement of Problem and Substantiation for Public Input

Purple K Fire extinguishers of 80 B:C and (18lb) dry chemical agent rating meets the B:C and exceed the 40B:C rating.

The interim Amendment issued December 6, 2017 states, 5.1.10 Fire Protection. At least one fire extinguisher, with the minimum rating of 40B: and a minimum capacity of 9.0 kg (20lb of dry chemical agent shall be provided at each fueling vehicle loading position or rack. It also states the same B:C rating and 20lbs in the other NFPA 407revisions, 6.1.10, 6.1.10.1, 6.1.10.2, 8.1.10.1, 8.1.10.2.

The language change of (and a minimum capacity of 9.0 kg 20lb of dry chemical agent) will cause the airport to change out the fire extinguishers on fleet equipment and at numerous airport locations.

Submitter Information Verification

Submitter Full Name: Charlie Laudage
Organization: Allied Aviation Ny Servs
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 20 12:49:07 EDT 2018
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic. a 40BC without the minimum weight of 20lbs has the potential to be too small of an extinguisher for these operations.

Public Input No. 6-NFPA 407-2017 [Section No. 5.1.10]

5.1.10 Fire Protection.

At ~~least one fire extinguisher~~ least two high flow fire extinguishers , with a minimum rating of 80-B:C, shall be provided at each fueling vehicle loading position or rack.

Statement of Problem and Substantiation for Public Input

We recommend that (1) high flow fire extinguisher should be placed at each end of the fuel stations in order to minimize the travel distances.

Submitter Information Verification

Submitter Full Name: stephane briard
Organization: CNRL
Street Address:
City:
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Submittal Date: Thu Feb 02 17:26:33 EST 2017
Committee:

Committee Statement

Resolution: 1. It is difficult to determine if an extinguisher is high flow when inspecting 2. NFPA 10 covers the travel distance and placement of extinguishers

Public Input No. 11-NFPA 407-2017 [Section No. 6.1.10.1]

6.1.10.1

Each aircraft fuel servicing tank vehicle shall have two listed fire extinguishers, each having a rating of at least 80-B:C or high capacity extinguishers with a rating of at least 60-B:C , with one extinguisher mounted on each side of the vehicle.

Statement of Problem and Substantiation for Public Input

Since the revision of this requirement from 20-B:C to 80-B:C in the 2017 edition, it has been found in the field that many jurisdictions require "high capacity" or "high flow" extinguishers to protect fuel facilities and/or vehicles, following the requirements of NFPA 10-6.3.2 (liquids of appreciable depth). A nominal 20 pound extinguisher with a high capacity listing is a 60-B:C extinguisher, which is capable of, but not listed to, 120-B:C. These "high capacity" extinguishers should be considered acceptable by this standard.

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Submittal Date: Fri Jun 16 14:45:14 EDT 2017
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic.

Public Input No. 19-NFPA 407-2018 [Section No. 6.1.10.1]

6.1.10.1

Each aircraft fuel servicing tank vehicle shall have two listed fire extinguishers, each having a rating of at least 40-B:C and ~~a minimum capacity of 9.0 kg (20 lb) of~~ an adequate capacity to store the required amount of dry chemical agent to obtain the B:C rating , with one extinguisher mounted on each side of the vehicle.

Statement of Problem and Substantiation for Public Input

Purple K Fire extinguishers of 80 B:C and (18lb) dry chemical agent rating meets the B:C and exceed the 40B:C rating.

The interim Amendment issued December 6, 2017 states, 5.1.10 Fire Protection. At least one fire extinguisher, with the minimum rating of 40B: and a minimum capacity of 9.0 kg (20lb of dry chemical agent shall be provided at each fueling vehicle loading position or rack. It also states the same B:C rating and 20lbs in the other NFPA 407revisions, 6.1.10, 6.1.10.1, 6.1.10.2, 8.1.10.1, 8.1.10.2.

The language change of (and a minimum capacity of 9.0 kg 20lb of dry chemical agent) will cause the airport to change out the fire extinguishers on fleet equipment and at numerous airport locations.

Submitter Information Verification

Submitter Full Name: Charlie Laudage
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Zip:
Submittal Date: Fri Apr 20 13:04:03 EDT 2018
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic. a 40BC without the minimum weight of 20lbs has the potential to be too small of an extinguisher for these operations.

Public Input No. 20-NFPA 407-2018 [Section No. 6.1.10.2]

6.1.10.2

One listed fire extinguisher having a rating of at least 40-B:C and ~~a minimum capacity of 9.0 kg (20 lb) of dry chemical agent~~ an adequate capacity to store the required amount of dry chemical agent to obtain the B:C rating, shall be installed on each hydrant fuel servicing vehicle or cart.

Statement of Problem and Substantiation for Public Input

Purple K Fire extinguishers of 80 B:C and (18lb) dry chemical agent rating meets the B:C and exceed the 40B:C rating.

The interim Amendment issued December 6, 2017 states, 5.1.10 Fire Protection. At least one fire extinguisher, with the minimum rating of 40B: and a minimum capacity of 9.0 kg (20lb of dry chemical agent shall be provided at each fueling vehicle loading position or rack. It also states the same B:C rating and 20lbs in the other NFPA 407revisions, 6.1.10, 6.1.10.1, 6.1.10.2, 8.1.10.1, 8.1.10.2.

The language change of (and a minimum capacity of 9.0 kg 20lb of dry chemical agent) will cause the airport to change out the fire extinguishers on fleet equipment and at numerous airport locations.

Submitter Information Verification

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Submittal Date: Fri Apr 20 13:07:50 EDT 2018
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic. a 40BC without the minimum weight of 20lbs has the potential to be too small of an extinguisher for these operations.

Public Input No. 17-NFPA 407-2017 [New Section after 6.2.12]

6.2.12.6 Aircraft fuel servicing tank vehicles shall be positioned so that the vehicle is greater than 15m (50 ft) from buildings.

Statement of Problem and Substantiation for Public Input

There are no requirements for the proximity of aircraft fuel servicing tank vehicles and buildings while fueling. As the standard currently exists, fuel trucks can be parked inches from a building while fueling aircraft, which does not promote safe fueling practices.
Unattended fuel servicing tank vehicles are required to be more than 50' from buildings, and cabinets and hydrants are also required to be 50' from buildings. Requiring trucks to also remain 50' from buildings would be consistent with other distance-from-buildings requirements in this standard.

Submitter Information Verification

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City:
State:
Zip:
Submittal Date: Mon Dec 18 12:08:42 EST 2017
Committee:

Committee Statement

Resolution: FR-5-NFPA 407-2019
Statement: There are no requirements for the proximity of aircraft fuel servicing tank vehicles and buildings while fueling. As the standard currently exists, fuel trucks can be parked inches from a building while fueling aircraft, which does not promote safe fueling practices.

Unattended fuel servicing tank vehicles are required to be more than 50' from buildings, and cabinets and hydrants are also required to be 50' from buildings. Requiring trucks to remain 25' from buildings would be in line with other distance-from-buildings requirements in this standard without being overly cumbersome.

Public Input No. 21-NFPA 407-2018 [Section No. 8.1.10.1]

8.1.10.1

Each facility shall have a minimum of one fire extinguisher with a rating of at least 40-B:C and ~~a minimum capacity of 9.0 kg (20 lb) of dry chemical agent~~ an adequate capacity to store the required amount of dry chemical agent to obtain the B:C rating, located at the dispenser.

Statement of Problem and Substantiation for Public Input

Purple K Fire extinguishers of 80 B:C and (18lb) dry chemical agent rating meets the B:C and exceed the 40B:C rating.

The interim Amendment issued December 6, 2017 states, 5.1.10 Fire Protection. At least one fire extinguisher, with the minimum rating of 40B: and a minimum capacity of 9.0 kg (20lb of dry chemical agent shall be provided at each fueling vehicle loading position or rack. It also states the same B:C rating and 20lbs in the other NFPA 407revisions, 6.1.10, 6.1.10.1, 6.1.10.2, 8.1.10.1, 8.1.10.2.

The language change of (and a minimum capacity of 9.0 kg 20lb of dry chemical agent) will cause the airport to change out the fire extinguishers on fleet equipment and at numerous airport locations.

Submitter Information Verification

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City:
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Submittal Date: Fri Apr 20 13:10:53 EDT 2018
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic. a 40BC without the minimum weight of 20lbs has the potential to be too small of an extinguisher for these operations.

Public Input No. 12-NFPA 407-2017 [Sections 8.1.10.1, 8.1.10.2]

Sections 8.1.10.1, 8.1.10.2

8.1.10.1

Each facility shall have a minimum of one fire extinguisher with a rating of at least 80-B:C, or a high capacity extinguisher with a rating of at least 60-B:C, located at the dispenser.

8.1.10.2

At least one fire extinguisher with a rating of at least 80-B:C, or a high capacity extinguisher with a rating of at leat 60-B:C, shall be provided at each emergency fuel shutoff control.

Statement of Problem and Substantiation for Public Input

Since the revision of this requirement from 20-B:C to 80-B:C in the 2017 edition, it has been found in the field that many jurisdictions require "high capacity" or "high flow" extinguishers to protect fuel facilities and/or vehicles, following the requirements of NFPA 10-6.3.2 (liquids of appreciable depth). A nominal 20 pound extinguisher with a high capacity listing is a 60-B:C extinguisher, which is capable of, but not listed to, 120-B:C. These "high capacity" extinguishers should be considered acceptable by this standard.

Submitter Information Verification

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Submittal Date: Fri Jun 16 14:46:38 EDT 2017
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic.

Public Input No. 22-NFPA 407-2018 [Section No. 8.1.10.2]

8.1.10.2

At least one fire extinguisher with a rating of at least 40-B:C and ~~a minimum capacity of 9.0 kg (20 lb) of dry chemical agent~~ an adequate capacity to store the required amount of dry chemical agent to obtain the B:C rating, shall be provided at each emergency fuel shutoff control.

Statement of Problem and Substantiation for Public Input

Purple K Fire extinguishers of 80 B:C and (18lb) dry chemical agent rating meets the B:C and exceed the 40B:C rating.

The interim Amendment issued December 6, 2017 states, 5.1.10 Fire Protection. At least one fire extinguisher, with the minimum rating of 40B: and a minimum capacity of 9.0 kg (20lb of dry chemical agent shall be provided at each fueling vehicle loading position or rack. It also states the same B:C rating and 20lbs in the other NFPA 407revisions, 6.1.10, 6.1.10.1, 6.1.10.2, 8.1.10.1, 8.1.10.2.

The language change of (and a minimum capacity of 9.0 kg 20lb of dry chemical agent) will cause the airport to change out the fire extinguishers on fleet equipment and at numerous airport locations.

Submitter Information Verification

Submitter Full Name: Charlie Laudage
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Submittal Date: Fri Apr 20 13:13:37 EDT 2018
Committee:

Committee Statement

Resolution: This was better resolved by TIA 1339 and addresses the same topic. a 40BC without the minimum weight of 20lbs has the potential to be too small of an extinguisher for these operations.

Public Input No. 14-NFPA 407-2017 [New Section after A.5.1.9.6]

A.5.1.10. Fire Protection.

The locations of fire extinguishers at fixed sites may be combined. For example, two loading racks on opposite sides of a fueling island may share one fire extiginguisher mounted on the island. Or, an extinguisher may be located next to an Emergency Fuel Shutoff which is also in the path of egress from a fuel facility.

Statement of Problem and Substantiation for Public Input

Clarifies the number of extinguishers needed at fixed sites, and methods of compliance for enforcers.

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Submittal Date: Fri Jun 16 14:49:29 EDT 2017
Committee:

Committee Statement

Resolution: FR-6-NFPA 407-2019
Statement: A single portable fire extinguisher should be able to serve two fuel vehicle loading position since they are often on two sides of an island in close proximity to each other. Requiring additional extinguishers would be considered redundant.

Public Input No. 23-NFPA 407-2018 [Chapter C]

Annex C Informational References

C.1 Referenced Publications.

The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

C.1.1 NFPA Publications.

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

NFPA 70®, *National Electrical Code®*, 2017 edition.

NFPA 77, *Recommended Practice on Static Electricity*, 2014 edition.

NFPA 415, *Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways*, 2016 edition.

C.1.2 Other Publications.

C.1.2.1 A4A Publications.

Airlines for America, 1301 Pennsylvania Avenue, NW, Suite 1100, Washington, DC 20004.

Spec 103: *Standard for Jet Fuel Quality Control at Airports*, ~~2009~~ 20 **17** .

C.1.2.2 API Publications.

American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005-4070.

API RP 1595, *Design, Construction, Operation, Maintenance, and Inspection of Aviation Pre-Airfield Storage Terminals*, 2012.

API RP 2003, *Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents*, ~~2008~~ 20 **15** .

API STD 607, *Fire Test for Quarter-Turn Valves and Valves Equipped With Nonmetallic Seats*, ~~2010~~ 201 **6** .

C.1.2.3 ASTM Publications.

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

ASTM D86, *Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure*, ~~2012~~ 201 **7** .

ASTM D323, *Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)*, ~~2008, reapproved 2014~~ **2015a** .

ASTM MNL5, *Aviation Fuel Quality Control Procedures:* ~~4th~~ **5** th Edition, ~~2009~~ 20 **17** .

C.1.2.4 CRC Publications.

Coordinating Research Council Inc., 5755 North Point Parkway, Suite 265, Alpharetta, GA 30022.

CRC Report No. 583, *Aircraft and Refueler Bonding and Grounding Study*, 1993.

C.1.2.5 EI Publications.

Energy Institute, 61 Cavendish Street, London W1G 7AR, UK.

EI 1529, *Aviation Fueling Hose and Hose Assemblies*, 2014.

EI 1540, *Design, Construction, Operation, and Maintenance of Aviation Fueling Facilities*, 2014.

EI 1550, *Handbook on Equipment Used for the Maintenance and Delivery of Clean Aviation Fuel*, 2014.

EI 1581, *Specification and Qualification Procedures for Aviation Jet Fuel Filter/Separators*, 2011.

EI 1583, *Laboratory Tests and Minimum Performance Levels for Aviation Fuel Filter Monitors*, 2012.

EI 1590, *Specifications and Qualification Procedures for Aviation Fuel Microfilters*, 2014.

EI 1596, *Design and Construction of Aviation Fuel Filter Vessels*, 2013.

C.1.2.6 FAA Publications.

Federal Aviation Administration, U.S. Department of Transportation, Distribution Unit, M-494.3, Washington, DC 20590.

FAA AC-150-5230, *Aircraft Fuel Storage, Handling, Training, and Dispensing on Airports*, Rev 4B, 2012.

C.1.2.7 FM Publications.

FM Global, 270 Central Avenue, P.O. Box 7500, Johnston, RI 02919.

FM Approval 3610, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III Division 1, Hazardous (Classified) Locations,* 2010.

C.1.2.8 Joint Inspection Group Publications.

Joint Inspection Group, P.O. Box 33094, 6A Foscote Mews, London, W9 2YX United Kingdom.

JIG 4, *Guidelines for Aviation Fuel Quality Control & Operating Procedures for Smaller Airports,* 2014.

C.1.2.9 NATA Publications.

National Air Transportation Association, 4226 King Street, Alexandria, VA 22302.

Refueling and Quality Control Procedures for Airport Service and Support Operations, 2011.

C.1.2.10 NIST Publications.

National Institute of Standards and Technology, 100 Bureau Drive, Stop 1070, Gaithersburg, MD 20899-1070.

NIST Handbook 44, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, ~~2012~~ 201 **8** .

C.1.2.11 NTIS Publications.

National Technical Information Service, 5301 Shawnee Road, Alexandria, VA 22312.

Hacker, P.T., R. R. Hibbard, *An Evaluation of the Relative Fire Hazards of JET A and JET B for Commercial Flight* (N7410709), 1973.

C.1.2.12 PEI Publications.

Petroleum Equipment Institute, 6931 S. 66th E. Ave., Suite 200, Tulsa, OK 74133.

PEI ~~RP100~~ RP 100 , *Installation of Underground Liquid Storage Systems*, ~~2011~~ 201 **7** .

PEI ~~RP200~~ RP 200 , *Installation of Aboveground Storage Systems*, 2013.

PEI ~~RP800~~ RP 800 , *Design and Installation of Bulk Storage Plants*, 2013.

PEI ~~RP1300~~ RP 1300 , *Aviation Fueling Systems*, ~~2013~~ 201 **5** .

C.1.2.13 UL Publications.

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

ANSI/UL 913, *Standard for Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III Division 1, Hazardous (Classified) Locations*, 2013**, revised 2015** .

ANSI/UL 60079-11, *Explosive Atmospheres — Part 11: Equipment Protection by Intrinsic Safety 'i',* 2013**, revised 2018** .

C.1.2.14 U.S. Government Publications.

U.S. Government Publishing Office, ~~Washington, DC 20402~~ **732 North Capitol Street,** Washington, DC 2040 **1-0001** .

OSHA, Title 29, Code of Federal Regulations.

EPA, Title 40, Code of Federal Regulations, Part 112, “Oil Pollution Prevention.”

EPA, Title 40, Code of Federal Regulations, Part 280, “Underground Tanks.”

C.1.2.15 Other Publications.

Bachman, K. C., and W. G. Dukek, *Static Electricity in Fueling Superjets,* 1972. Esso Research & Eng. Co. Brochure, Linden, NJ.

C.2 Informational References.

The following documents or portions thereof are listed here as informational resources only. They are not a part of the requirements of this document.

C.2.1 API Publications.

American Petroleum Institute, 1220 L Street, N.W., Washington, DC 20005-4070.

API STD 2000, *Venting Atmospheric and Low-Pressure Storage Tanks*, 2014.

C.2.2 ASTM Publications.

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

ASTM D910, *Standard Specification for Aviation Gasolines*, ~~2013A~~ 201 **7a** .

ASTM D1655, *Standard Specification for Aviation Turbine Fuels*, ~~2014~~ 201 **8a** .

C.3 References for Extracts in Informational Sections.

(Reserved)

Statement of Problem and Substantiation for Public Input

Referenced current national consensus standard editions.

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Submittal Date: Wed Oct 31 00:18:38 EDT 2018
Committee: AIF-AAA

Committee Statement

Resolution: FR-7-NFPA 407-2019
Statement: Referenced current national consensus standard editions.

Public Input No. 30-NFPA 407-2019 [Section No. C.1.2.13]

C.1.2.13 UL Publications.

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

ANSI/UL 913, *Standard for Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III Division 1, Hazardous (Classified) Locations*, 2013, revised 2019 .

ANSI/UL 60079-11, *Explosive Atmospheres — Part 11: Equipment Protection by Intrinsic Safety 'i',* 2013, revised 2018 .

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 29-NFPA 407-2019 [Section No. 2.3.6]	

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Submittal Date: Fri Jun 14 15:17:08 EDT 2019
Committee: AIF-AAA

Committee Statement

Resolution: FR-7-NFPA 407-2019
Statement: Referenced current national consensus standard editions.