Public Comment No. 17-NFPA 10-2020 [Global Input]

CI # 49 - With regard to the presentation at the first meeting to consider revising extinguisher travel distance requirements in warehouses and large area buildings the following feedback is offered:

1. This is a task group project at a minimum and that TG needs more time to work on this than just the interval between 1st and 2nd meetings. If this is a legitimate need or concern of industry then form a TG now and goal it for the 2027 or later edition so as to afford enough time to truly research and draft language.

2. If the presenter or their industry client wishes to pursue this then it will likely need the assistance of the Fire Protection Research Foundation or another testing entity as there are no current test or study results which evaluate true effectiveness of portable fire extinguishers against elevated fires in rack storage occupancies.

3. The reach of a portable extinguisher from within a narrow (sometimes 4-foot wide) aisle between racking is likely not very good beyond 1 or two tiers. This may improve with wheeled extinguishers but is thus far not evaluated by anyone to determine actual fire extinguishment capability. It's hard to start at 10 feet and work closer to the base of the flame from a side approach. Its also likely impossible to move in closer as fire is knocked down since the fire is vertically above the floor. Current horizontal range data is based on a horizontal discharge against a test surface which is 3 feet BELOW the nozzle. This most closely reflects a standing human with the extinguisher at waist height with the hose extended forward and parallel to the ground. The discharge of agent in a vertical direction against a fire and fuel package which is above and likely well above the nozzle is clearly outside of any current product listing or evaluations. (See UL 299 Section 32)

4. What impact does the racking assembly, shelving, mesh, pallets, and unit loads surrounding the involved fire area have on being an obstruction to application and penetration of dry chemical agent? Nobody knows so that further supports the need for actual testing of the concept to determine if standard rate extinguishers have any value in these environments or if a specialty extinguisher (wheeled or yet to be developed) is needed.

5. Will any alternative placement / spacing options still make extinguishers effective for novice users or would there have to be enhanced training for all employees or employees designated to utilize perhaps wheeled unit extinguishers? With greater travel distances comes a greater time from detection to reflex to application. As time increases so does fire conditions & growth which would probably warrant greater agent capacity but also more specialized training for this unique fire attack scenario.

6. Traditionally, NFPA 10 has not differentiated or relaxed any requirements in consideration of a building being sprinkler protected. Perhaps however this is an opportunity to include sprinkler protection in the overall response and protection plan for incipient stage fires. I'd expect that the design of the sprinkler system would be a factor in any possible reduction or allowances given to size and spacing of extinguishers. For example, an ESFR system should be given more latitude than control mode (CM) design as ESFR actually fights back against heat release (suppressing fire) versus control mode which establishes a limit to fire growth and holds it from further increase in heat release but still requires intervention to completely extinguish. Certainly an adapted use area/density converted warehouse building which still uses pipe schedule or occupancy hazard criteria is not a good choice for reducing any fire protection capability. With the promise shown by ESFR design in high rack protection perhaps the first thing to test and evaluate is whether or not novice use of extinguishers could in any way negatively impact ESFR performance. Nobody knows if one protective

measure could actually hurt the performance of another.

7. The alternative option would only be applicable to warehouse buildings of a certain gross area - not every building with a 'warehouse' space and some racking could employ the alternative approach. There needs to be consideration of gross warehouse area, separation from adjacent occupancies / tenants, and number of employees present to make the alternative a still viable approach. There is no option to use this alternative to public access 'warehouse' club stores or anything else you want to call them in which the public has access.

8. As presented the question was to the practicality of the 75-foot travel distance for fire extinguishers in warehouses. The only 75-foot travel distance option in NFPA 10 (and also the Int. Fire Code) is for Class A fire hazards. There is no 75-foot travel distance for Class B fire protection so does that mean that this concept would only be applicable to warehouses without any Class B fire hazards? Along those lines then would these warehouses also be without electrical energy to not need Class C ratings and use traditional water cans only? Or do we have a technology to provide larger volume Class A:C wheeled fire extinguishers? It seems the matter before the Committee is not so much as travel distance for Class A but more likely an alternative option to increase travel distances for both Class A & B, and naturally C, fire hazards (multipurpose dry chemical). A modern high rack warehouse is generally going to have one or more Class B fire hazards and electrical energy somewhere within the protected area so wouldn't the choice of fire extinguisher have to be compatible with those hazards? The review of hazards present must also consider those other than the stored or handled commodity. There may be powered industrial trucks, automated moving and carousel equipment, robotic movers, people, people introduced hazards, directional radiant heaters, hot process equipment such as shrink and glue machines, and no doubt others. It may be true to say that idle commodities on racks in automated spaces are a low fire risk but there are other potential ignition scenarios which are foreseeable in unattended to minimally attended warehouses.

9. The concept as presented also indicated an increase in travel distances rather than a total exemption for fire extinguishers in such buildings. The scope of what the Committee and any such TG that is formed will be considering needs to be clear. There is obviously a significant difference between increasing travel distances in exchange for larger but fewer extinguishers and a complete or total exemption for them.

To answer the proposer / CI, yes - there may be an interest, if not also a reason, in looking for an alternative approach but it has to be based in some actual testing of the effectiveness of extinguishers against high rack storage and for now it should be limited to high rack warehousing, not 'other large areas' which lack enough description or detail to determine if the concepts and findings of testing would be relatable. This is too situation specific to be starting out with broadly encompassing occupancy descriptions.

Statement of Problem and Substantiation for Public Comment

There is no identified fire problem at this point - the NFPA 10 Committee was approached by an industry representative and has solicited feedback on the practicality of revising extinguisher travel distance requirements with regard to warehouses and other large areas so I'm giving you my feedback and ensuring time is allotted at the next meeting to discuss it.

Related Item

• CI #49

Submitter Information Verification

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Submittal Date: Thu Apr 02 12:52:12 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended text.

Public Comment No. 18-NFPA 10-2020 [Global Input]

CI # 51 - Proposed new definitions:

3.3.10.1 Electronic Remote Monitoring: The use of data-based communication between an installed fire extinguisher and an electronic monitoring system.

By definition this term relates to data being passed to or from an extinguisher and the monitoring system. The performance and requirements for this type of arrangement is contained in the body of the code. The definition should be broad enough to encompass the possibility of both wired and wireless / RF based systems. The key is that this type of monitoring uses data and not just voltage via an open/closed circuit configuration.

The term 'in-place' is probably not the best since an extinguisher is not necessarily in place which is why the monitoring system would detect an extinguisher which was removed from its mounting location and initiate a signal. The system therefore works with both in-place and removed extinguishers - hence the term 'installed' is better. Once an extinguisher is installed and its electronic monitoring is connected all required conditions are annunciated.

3.3.10.2 Electric Extinguisher Signaling Device: An attachment or component which locally indicates the status of an installed fire extinguisher or its cabinet and is not part of an interconnected monitoring system.

NEW TERM Electronic Recordkeeping: A means by which records of extinguisher inspection, testing, and maintenance events are maintained without hard-copy or paper documents. This may be used in a standalone manner or in conjunction with electronic remote monitoring so long as the recorded activity can be produced and disseminated in a format viewable to other parties.

Statement of Problem and Substantiation for Public Comment

Distinguish between system connected monitoring and standalone singe station devices. Also adds term for Electronic Recordkeeping to make clear the difference between electronic monitoring versus having electronic records. Electronic records may be captured in the field using computerized electronics or they can be paper based which are then archived or scanned into electronic records (PDF's) and this would suffice for recordkeeping under NFPA 10 but would not be considered 'electronic monitoring' for purposes of reducing inspection intervals or tasks required by the Code.

Related Item

• PI #51

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Committee:

Committee Statement

Committee Action: Rejected but held

Resolution: The comment is new material.

Public Comment No. 19-NFPA 10-2020 [Global Input]

With regard to NFPA 10's document structure and contents of Chapter 6 (Installation) and Chapter 7 (Inspection, Maintenance, and Recharging) and as part of the following FR's which were not afforded adequate opportunity for committee discussion at the first meeting. (FR #'s 9 10, 11, 16, 53, 59, & 64)

The concept of the document structure is that whenever a new fire extinguisher, or a replacement fire extinguisher, is initially installed all applicable requirements of Chapter 6 are appled and enforceable. Thereafter, and until such time as that fire extinguisher is replaced, Chapter 6 would not be citable and anything found or perceived as deficient would have to be cited through Chapter 7.

That structure therefore requires that anything in Chapter 6 relating to an installation requirement must have companion language in Chapter 7 which requires the ongoing inspection and maintenance of those installation requirements. If not then we get a compliant installation which is not enforceable over the life of the installation and once it falls out of installation compliance there is little that can be done or cited without getting creative and going back to Chapter 6.

It is clearly within the Scope of NFPA 10 to regulate the installation of extinguishers but *ALSO* the maintenance requirements (Chapter 6) (See 1.1 & 1.1.1) but at present Chapter 7 is almost exclusively focused on the physical being of the extinguisher and therefore is overlooking a large component of 'proper extinguishers' which include their identification, access, conspicuity mounting, and when problems are actionable other than during the prescribed maintenance intervals. Because of the persistence of this problem the field use of the Code often reverts to Chapter 6 to 'shore up' field inspections found by code authorities who are performing site inspections and not a prescribed owners monthly inspection. It's not a legitimate approach to extinguisher maintenance and this Committee needs to continue its charge of producing a comprehensive and inclusive code document.

At present there is disparity between Chapter 6 and 7 as follows: (2018 edition and not considering any current proposals)

6.1.2 Extinguisher Readiness is most likely a maintenance requirement but it has a place in both chapters 6 and 7. Its language is key in that located and operationally ready is required at all times.... not just something which is reviewed during a monthly inspection (current Chapter 7 language).

6.1.3.1 No specific language in Chapter 7 and only reviewed during a monthly inspection. It needs standalone section to be actionable immediately upon discovery.

6.1.3.3 - 6.1.3.3.4 No specific language in Chapter 7 to address supplemental signage maintenance.

6.1.3.4.1-6.1.3.7 No specific language in Chapter 7 to address bracket condition, function, suitability, or damage either during an inspection or upon discovery.

6.1.3.8.3 If I take an existing extinguisher out of the bracket and sit it on the floor right below the bracket to block a door open where in Chapter 7 is this citable on discovery?

6.1.3.9 At present there is no requirement that extinguishers be kept or left with their operating labels facing outward after installation except during a monthly inspection in certain high risk locations (See 7.2.2.4 #1 which is only triggered by 7.2.2.3)

6.1.3.10 Chapter 6 tells us all about cabinets and then nothing in chapter 7 at all. Yes there is some minor language pending but it needs to mirror all of 6.1.3.10's points.

At present there is no language in the document which could be used to restart the extinguisher hazard analysis and selection process if an existing occupancy or installation undergoes some change that renders a previously installed fire extinguisher

an incorrect choice, size, rating, location, or travel distance. Buildings often undergo physical changes that reconfigure the interior spaces and that can leave previously installed extinguishers now incorrectly located or out of travel distance rules. This is a common field problem but there is no on-point language in NFPA 10 which addresses such changes in the building or occupancy. If these changed conditions are found by a code official or a service provider performing inspection services they would be hard pressed to be able to open the document and point to a code section which would essentially force a restart of the process of evaluating hazard against current extinguisher. It would most likely need to be located somewhere in Chapter 7 right up front like a new section 7.1.5:

'Where building conditions or occupancy changes may impact currently installed fire extinguisher rating, size, placement, travel distances, or mounting an evaluation shall be performed by an individual or entity acceptable to the authority having jurisdiction to determine ongoing compliance with Chapter 5 and Annex C. Where instances of non-compliance are found corrective action shall be performed.'

Statement of Problem and Substantiation for Public Comment

The Committee has to ensure that what is required on installation from Chapter 6 can be tied to a maintenance requirement thereafter in Chapter 7.

Related Item

• FR # 9 • FR # 10 • FR # 11 • FR # 16 • FR # 53 • FR # 59 • FR # 64

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Committee:

Committee Statement

Committee Action: Rejected but held
Resolution: The public comment is new material and is being held for the next revision cycle.

Public Comment No. 20-NFPA 10-2020 [Global Input]

In response to FR-20 relating to former Section 6.3.2.2 which was deleted by the Committee off a floor motion because the use of the term 'training' in the section was not defined and because trained personnel might only be present during occupied hours:

First, if any building or occupancy is unoccupied at any time then the presence of portable fire extinguishers, which rely on human intervention for deployment, would be a mute point. There should be no expectation by anyone, including Committee members, that fire extinguishers provide some measure of fire fighting capability when they are present but no person, novice, trained, or responder is present. So to provide a Committee Statement which intimates that trained personnel only being present during times when the facility is manned is implausible.

Second, the language which formerly existed at 6.3.2.2 can historically be found as far back as the 1978 edition of NFPA 10 under Section 3-4.1 and aside from editorial and manual of style changes the technical requirement remained the same through and into the 2018 edition. There is no identified technical difficulty with compliance or conflict with another code yet somehow the Committee suddenly deleted this section without performing any research into the nexus of the original language or how it may impact other NFPA standards or model codes which commonly and almost serially reference to NFPA 10.

What is known at the present time is that the International Fire Code and NFPA 34 both use the 10ft2 surface area threshold as when fixed automatic fire suppression equipment is required for liquid dip tanks (flam / comb liquids of appreciable depth) while both also reference to NFPA 10 for portable extinguishers. What this language in NFPA 10 does, and has done since at least 1978, is permit an increase to 20ft2 of surface area before fixed suppression is required PROVIDED that trained fire extinguisher operators are on premise and capable of immediate response.

The NFPA 10 Committee is also well aware that the effectiveness of a portable fire extinguisher in the hands of a trained responder who can immediately respond to a fire is appreciably higher than the labeled ratings, particularly for Class B liquids. The UL testing process recognizes the capability and performance differences between a skilled test proctor and a novice operator and they adjust downwards the actual labeled ratings for an extinguisher compared to the lab test performance. What this section does (did) was recognize that trained immediate response would be more effective and for that immediate on-site capability the threshold for open dip tanks was increased to 20ft2 before fixed suppression was required.

In order to extinguish a 25ft2 appreciable depth pan fire in the UL test a 10-B extinguisher is the minimum size required. Under NFPA 10's current appreciable depth Class B rules every 1 ft2 of surface area requires a 2-B rating. Therefore, a 20ft2 dip tank would require a minimum 40-B rated extinguisher, and that requirement is based off a novice user and does not vary if trained personnel are immediately available. Under the UL test method a 40-B extinguisher must extinguish a 100 ft2 *OUTDOOR* pan fire, which is the required 60% down rating (labeled rating) for all Class B tests under UL-711 Section 5.4. The indoor test fire stops at 50ft2 with a 20-B rated extinguisher. NFPA 10 former 6.3.2.2 permitted an extinguisher twice that size for protecting less than half the surface area *AND* at the hand of trained personnel. Is there any actual doubt that even an minimally trained person with a 40-B extinguisher could extinguish a 20ft2 open indoor dip tank fire? Even if the scenario was for an outdoor dip tank the test numbers still give an overwhelming margin of safety to the extinguisher. If this was a real work fire problem we are likely to have heard about it by now...

We must also consider the impact of this deletion on any existing dip tank installations which were covered by this allowance at the time of their installation or opening. There

is no retroactivity section or provision in NFPA 10. When a change such as this is made it does not exclusively apply to only new installations going forward. This Committee has previously made changes to rating, class, agent, or design requirements which make existing installations non-compliant either immediately or through some timed compliance. Clearly NFPA 10 is meant to apply retroactively when those changes arise. This change could also impact existing installations and that has not been considered in this process.

At an absolute minimum I urge that NFPA 10 preserve the former language in 6.3.2.2 (42 years old) until such time that the Committee can review the matter with the Staff Liason and Chair of NFPA 34 to get their input as our change can have impact on their document and industry members. There is no evident urgent call to action and given the long standing history of this language in both NFPA 10 & 34 caution and prudence dictates that both Committees must interact on crossover matters before one does something which harms the other. We have the opportunity here to do the right thing before a more drastic measure must be considered by the Standards Council to head-off a conflict between NFPA documents. That would fit the description of an urgent call to action.

Statement of Problem and Substantiation for Public Comment

With a little research and thought process the problem created by deletion almost speaks for itself in case the above explanation didn't do it for you.

Related Item

• FR #20

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Submittal Date: Fri Apr 03 09:46:21 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended revision.

Public Comment No. 23-NFPA 10-2020 [Global Input]

In response to the Committee Input # 50 soliciting feedback on a potential performance based design (PBD) fire extinguisher inspection frequency the following is offered:

1. The interest appears to be a means to not perform the prescriptive monthly manual inspection and/or provide electronic monitoring as found in NFPA 10 Section 7.2.1. Individually or in combination those two measures current require that extinguishers be inspected at least once every 31 days.

2. NFPA 10 currently options alternative arrangements from the strict requirements of the code 'provided that the level of protection as herein {NFPA 10} described is not lowered and is acceptable to the authority having jurisdiction'. (See Section 1.2.2) This means that potentially any requirement of NFPA 10 could be modified by a performance based design provided the intent of NFPA 10 is upheld and the AHJ approves the performance based alternative.

3. There are many different reasons why the current PBD language is not adequate for any given entity. A common example is that AHJ's are reluctant or hesitant to approve a PBD when it appears that the existing prescriptive code language could be achieved if not for the want of an owner's whimsy.

4. By placing PBD language which spells out the pathway to a PBD into the document there is a framework for designers and AHJ's to follow in ensuring that the code intended minimum performance level is achieved. There are many different analytical and modeling tools that already do this type of work for egress flows, fire modeling, protection system response, etc there is currently no modeling or analytical tools to address periodic fire extinguisher inspections. This means that there is no check & balance or minimum standard for the development of a PBD. As such getting an AHJ to approve a PBD under 1.2.2 could be difficult if not impossible.

5. NFPA 10's expectation as to the level of fire extinguisher performance is probably best stated in Section 6.1.2 which reads: Portable fire extinguishers shall be maintained in a fully charged and operable condition and shall be kept in their designated places at all times when they are not being used.' Translation - this Code expects that a fire extinguisher is where you need it, when you need it, and is ready when you need it and anything less is violative of the Code. To that end NFPA 10 had historically spelled out inspection requirements and intervals believed to most reliably achieve the stated goal. A PBD which would modify the current prescriptive requirements and intervals would have to most reliably maintain the Code's objective in 6.1.2. This is perhaps best stated in the NFPA Fire Protection Handbook Section 3 Chapter 14 (p.3-198) which reads 'Ultimately, the goal of performance based fire protection design is to demonstrate, through appropriate engineering analyses, that an acceptable level of fire safety will be achieved under a comprehensive set of anticipated or foreseeable conditions of use'.

6. Who develops a performance based design or who is eligible to develop a performance based design will vary widely based on city, state, or provincial rules as will who the AHJ for that particular area would be. While a 'fire code official' may approve a performance based design which took monthly visual inspections down to on a semi-annual basis this would not necessarily mean that a workplace safety inspector (OSHA Federal or OSHA State) would also accept the PBD and therefore the property owner ends up in violation of one set of regulations while being compliant with another even on the same extinguisher. This is a common issue where multiple oversight agencies have regulatory language governing the same item. A PBD option spelled out in NFPA 10 would not solve this problem and could leave a property owner both in compliance with NFPA 10 (Using a PBD) while simultaneously also being found in violation of NFPA 10 for not following prescriptive monthly inspections (When another AHJ doesn't approve the PBD or may not reference NFPA 10 and instead simply have hard worded language of

monthly visual inspection required).

7. The development of a PBD is a process of data collection, statistical analysis, and some degree of reasonable inference and conclusion about what the data means given a specific set of events or scenario. It will need someone skilled in PBD as a concept and PBD as it relates to fire protection. It also is not general or cookie cutter to every situation. To be plausible a qualified professional(s) would have to take a per case or per scenario approach to the problem and work forward following either the NFPA Fire Protection Handbook model or another recognized PBD model such as the SFPE. While it may sound good to say I have a PBD for fire extinguisher inspections it wouldn't necessarily fit into every single scenario as local conditions and environmental factors can impact the statistics.

Ultimately, if, as an AHJ, I was approached with a PBD for a given property in the community I'd be willing to consider it but I'd also be comparing the preparation and methodology of the PBD to the FPH or SFPE models. If the model was followed then there is already an issue. If the model was followed but it was based on another facility in a different place then the risk and history parts of the analysis are likely flawed. If however it was comprehensive and evidently complete I'd likely approve it for a time specific period in order to gauge it's success and determine if it could continue or needed review and adjustment. And to those who say 'But what if something goes wrong and the extinguisher doesn't work?' I'd remind them that the PBD applied to the inspection frequency requirements, not the stated objective in Section 6.1.2. As with any situation if it goes wrong and the owner or other responsible party was not in compliance with the code, specifically here 6.1.2, then a PBD or anything else wouldn't save them from the liability and penalty for non-compliance. The truth is that the burden of a PBD, and the code, always rests with the design professional and the owner. If they knowingly go down this road they have already accepted the potential outcome of their decision. NFPA 10 already allows a performance based design approach - if someone wants to use it they should feel free. If we need a little Annex language to 1.2.2 to make that patently clear to all users then we should do it.

Statement of Problem and Substantiation for Public Comment

There is no real problem - the Code already allows what you are soliciting feedback so here it is.

Related Item

• CI # 50

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Submittal Date: Fri Apr 03 14:20:08 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected

Resolution: The comment contains no recommended revision. The submitter's statement has been considered in conjunction with other public comments on the same issue.

Public Comment No. 24-NFPA 10-2020 [Global Input]

Response to Committee Input #55 for Section 7.1.4.1 soliciting feedback on damaged labels (?)

My recollection on this discussion from the First Draft meeting was that this matter related to the handling and possible limitations on what, if any, labels, tags, stickers, or other markings are placed on the front of a fire extinguisher as they could distract from the vital rating and operating instructions already required by the manufacturing standard. This comment is answered in two separate parts, one for the stated topic and one from the recollection of the meeting. This comment addresses the handling of damaged tags and labels:

1. The UL standard for a given type of extinguisher (i.e. 299 for dry chem) is painstakingly precise and detailed in what information is presented in what manner, for what purpose, and where it is located on the extinguisher. Practically every word and symbol on the label of an extinguisher is provided for the purpose of meeting the relevant standard.

2. Operating instructions are provided with uniformity to ensure the novice operator is successfully able to deploy a fire extinguisher. If the operating instructions are compromised after installation then there needs to be enforceable language in NFPA 10 to have the issue resolved. If resolution is a manufacturer's approved replacement label then ok but if no such replacement part is available then, like all other matters of parts obsolescence, the extinguisher must be removed from service and replaced in kind.

3. The extinguisher's rating information and pictogram is also provided with uniformity and prominence to provide the novice operator with information necessary for a successful deployment. If this information is compromised then the same approach and argument in #2 above would be applied.

4. The back panel information, as specified in the listing standard, has been deemed critical enough to require permanent affixation onto the extinguisher shell. Most of this information is to aid in the ongoing inspection and maintenance of the extinguisher but it also provides information necessary to later identify and audit the extinguisher if an issue arises in response to a recall or to generate a recall. If one of the purposes of NFPA 10 is to regulate maintenance of extinguishers then this labeling, like the others above, must be maintained. If it is not legible and cannot be restored in a manner consistent with the original listing (size, content, material, adhesion) then the extinguisher must be removed from service and replaced in kind.

5. For example, If I have a CO2 extinguisher and the discharge hose & horn is damaged and I need to replace the parts can I go to my store room boneyard and find another hose and horn which fits and cobble together a 'working' extinguisher? What if that was my only choice because the manufacturer's direct replacement parts were no longer available? Is it ok then? If your answer is yes then take a moment to review Safety Alert 03-14 from the United States Coast Guard.

The labels installed on extinguishers during manufacture are required elements subject to the listing standard. They are assemblages of parts which are all subject to performance and evaluation. If any part of an extinguisher requires replacement and the correct part is not available for any reason then the extinguisher must be removed and replaced in kind. Why this is only part of an extinguisher inspection (7.2.2.4) for certain hazardous locations specified in 7.2.2.3 is beyond my understanding. This would seem to be a basic requirement of any inspection or maintenance task. Since it is not currently a required inspection item under NFPA 10 except in very specific and severe installations it seems that few extinguishers are being found with damaged labels. Maybe the Committee should fix this and make verification of legibility an standard inspection item regardless of installed environment.

Statement of Problem and Substantiation for Public Comment

The real problem is that NFPA 10 does not currently require inspection or maintenance of manufacturer's labeling. The actions to be taken once such a condition is found is pretty straight

forward.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 25-NFPA 10-2020 [Global Input]	
Public Comment No. 37-NFPA 10-2020 [Section No. 7.8.4.8.1.1]	

Related Item

• CI # 55

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Submittal Date: Mon Apr 06 08:11:24 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected

Resolution: The comment contains no recommended revision. The submitter's statement has been considered in conjunction with other public comments on the same issue.

Public Comment No. 25-NFPA 10-2020 [Global Input]

In response to Committee Input #55 soliciting feedback on the handling of damaged labels. This is the companion to Global Comment # 24 but to address the issue of labeling tags, markings, and such installed post-manufacture on installed extinguishers:

1. There is currently no clear guidance on what can be affixed or placed onto an extinguisher shell once it leaves the factory. As such there is a very wide range of field-applied markings that populate fire extinguishers. These can be sales contact, inventory control numbers, barcodes, hydro / overhaul labels, asset management, ownership information, HMIS related, or practically anything else.

2. Along with the variety of content comes the variety of colors, symbols, size, fonts, etc which lead to visual overload which is apparently a real concern...

3. Under UL 299 (for dry chem) the front instruction and rating label which is required may not occupy more than a 120-degree arc of the cylinder or shell. Basically a space left and right of gauge center for 60-degrees. See UL 299 Section 68.2

4. The front of the cylinder is further prohibited by UL 299 (69.4) from having certain content. While the manufacturer's trade name is permitted the listing standard states 'It shall not contain any other information that distracts attention from the operating instructions, such as an address or telephone number'.

5. If there was such deliberate concern by the listing organization over extraneous information on the front of an extinguisher why would there be any hesitation on the part of the NFPA 10 Committee to create supporting code language which prohibits anything not factory installed on the front of an extinguisher cylinder in the 'exclusion zone' which is 60-degrees left and right of center gauge (need UL description for gaugeless cylinders).

6. The novice user only has a few brief moments to absorb the pictogram and instructions on an extinguisher before deployment. There is a risk that too much information not part of the required labeling will prevent them from absorbing critical information. We have the ability to continue to listing standards approach to less is more on the front of the cylinder.

7. The other labels which populate extinguishers after installation can compete for the rear of the shell or the bottom. Hydro / overhaul labels should be incorporated into NFPA 10 so they are given preference over sales and asset control labels.

8. By placing asset or inventory tracking labels on the bottom of the shell it may compel the monthly visual inspection to actually pick up the extinguisher and hold it instead of just swiping or scanning on the run. This may actually improve code compliance.

9. The current 7.1.4.2 language in NFPA 10 is actually redundant given that the classification and rating labels are actually controlled by the listing standard. NFPA 10 should take a different approach to front cylinder labeling as described above. It is reserved for only that which is permitted by the listing standard and it also needs to be maintained. (See Public Comment #24 also on Globel Input #55).

10. Similarly, Section 7.1.4.1 would need to be revised to make it clear that no front or rear labeling required by the standard may be obstructed by field applied tags, labels, or markings - in conjunction with no front cylinder markings.

Statement of Problem and Substantiation for Public Comment

The problem is that too much crap and garbage is being affixed to any open real estate on extinguisher cylinders. At present the NFPA 10 language on labels actually allows front side labels in addition to

the required instructions and pictograms. This is evidently contrary to the listing standard which prohibits distracting or extraneous labeling on the front side.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 24-NFPA 10-2020 [Global Input]	

Related Item

• CI # 55

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Organization: NFPA 10 Committee
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 08:36:14 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected

Resolution: The comment contains no recommended revision. The submitter's statement has been considered in conjunction with other public comments on the same issue.

Public Comment No. 30-NFPA 10-2020 [Global Input]

Regarding FR-25 for Section 7.8.2.3.1 and the requirement to replace the premixed foam charge in loaded stream extinguishers at the direction / interval of the extinguisher manufacturer:

As written this change would only apply to *premixed* foam charges in AFFF and FFFP extinguishers. From the exterior of these extinguishers how does one determine if it used a premixed agent versus a post-mix? It seems that most foam extinguishers are shipped empty with a small container of liquid foam concentrate. The installing contractor first must mix the concentrate with water before loading it into the extinguisher shell. This would be a post-mixed foam solution, would it not? Premixed foam solutions are shipped from the factory in the correct foam/water mixture and would be loaded directly without any further mixing or dilution.

If approved this change modifies the time interval to anything up to 5 years depending on the extinguisher manufacturer. How would this change in code language in 7.8.2.3.1 impact the AFFF and FFFP extinguisher listed at 3 years in Table 7.3.3.1? Does the internal maintenance inspection interval now jump from 3 years to 5 years or does it stay at 3 years and the removed foam solution can be reused for another 2 years? If 3 yrs + 2 yrs = 5 years then wouldn't the extinguisher be due for its foam solution replacement one year before the next internal examination ? The Table 7.3.3.1 footnote seems to state that both the foam change and internal examinations occur concurrently and apply to and foam solution, not just premixed.

Regardless of the above the foam solution service life determination rests with the extinguisher manufacturer based on the below:

1. The foam charge provided with a new foam extinguisher, or as a recharge, is part of the listing for that extinguisher under UL 626 Section 23.

2. Only the foam charge specified by the extinguisher manufacturer is supposed to be used in filling or refilling that extinguisher. (NFPA 10 7.8.2.32 and 7.8.3.10.2)

3. Like any other component which is used in the fabrication and assembly of an extinguisher the extinguisher manufacturer is responsible for ensuring that all future production meets the previously issued extinguisher listing.

4. The extinguisher manufacturer may purchase the foam charge from a third party but the extinguisher manufacturer is responsible for that component as part of their listed product's assemblage. In some instances the actual manufacturer of the foam charge is not known to the end-owner of the extinguisher or their service provider.

5. The foam charge manufacturer may have provided the extinguisher manufacturer with guidelines or information regarding the service life of the foam charge but that does not relieve the obligation on the extinguisher manufacturer to develop service procedures and intervals that maintain the extinguisher in accordance with its listing.

6. This change (FR-25) makes it clear to all extinguisher manufacturer's that their foam charge is expected by this Code to meet a specified service interval unless they state otherwise. There can be no mistaking that this is an extinguisher manufacturer's responsibility regardless of who the foam may have been purchased from prior to being repackaged or relabeled and sold by the extinguisher manufacturer.

Statement of Problem and Substantiation for Public Comment

Clarification is needed as to what is premixed versus post-mixed and how they are treated under this change. Also,may need to review Table to match the new code wording.

The change in FR-25 makes it clear to all extinguisher manufacturer's what the service life expectation is for their foam extinguishers whether they make the foam charge in-house or repackage it from a 3rd party.

Related Item

• FR # 25

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 19:57:50 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended revision. The submitter's statement has been considered in conjunction with other public comments on the same issue.

Public Comment No. 31-NFPA 10-2020 [Global Input]

With regard to Section 5.5.4.6 and Annex 5.5.4.6

For the next cycle (better have it ready for the first draft meeting) the Committee really needs to look into better describing what 'delicate electronic equipment' really is for purposes of requiring specialty agent fire extinguishers. The current Code language is really ambiguous and could be too broadly interpreted across a range of applications and code users to achieve any measure of what a 'consensus' would be. In the Annex to this section the Committee attempts to define 'delicate electronic equipment by using the terms 'telecommunications, computers, servers, robotics, and reproduction equipment'.

Is the Committee really telling the world that an office workspace containing a number of cubicle workstations each with a telephone, computer monitor(s), and copier / printers would require specialty extinguishers? If so, how would these extinguishers be located, identified, and how about travel distance in conjunction with the typical ABC dry chemical's also required for building protection? Practically every occupancy other than a private dwelling now contains multiple computers, telephone devices, printers, copiers, multi-function reproduction equipment plus large panel monitors, TV, webcast audio systems, etc. There is 'delicate electronic equipment' all around us everyday, including the projector being used to display this at the Committee meeting.

There is a big difference between an employee work zone with a dozen terminals and the main server room downstairs which contains all the data and functionality of those work stations.

There is a big difference between a $150 consumer electronics printer / copier device on a table and a $35K office production color copier, scanner, fax, printer, collator, stapler machine which takes up the entire closet and pumps out 50+ pages per minute.

How about a satellite bank branch with a half dozen work terminals on the counter compared to a $250K automated teller machine?

There needs to be something done to quantify protection with the risk & value protected in addressing these 'delicate electronics'. I have no doubt that the new 24/7 automated remote pharmacy dispenser in the lobby of my city hospital is worth every bit of the $350K it cost and that it should have a specialty clean agent extinguisher but can the same be said for a self-checkout stand at the local big-box pharmacy retailer? In both of those occupancies it may not matter once the heat of combustion activates the fire sprinklers as residue clean up and corrosion are inherent to all scenarios.

Statement of Problem and Substantiation for Public Comment

The current language of 'delicate electronic equipment' is undefined by NFPA 10 or any other NFPA standard or the Merriam Webster dictionary so it can mean anything to anyone. There needs to be something done to make the section definitive and measurable to achieve some degree of uniformity in application.

Related Item

• FR # 36

Submitter Information Verification

Submitter Full Name: David Phelan

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Affiliation: Not Representing any Entity or Client
Street Address:
City:
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Submittal Date: Mon Apr 06 20:24:41 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended revision.

Public Comment No. 32-NFPA 10-2020 [Global Input]

In regard to Section 5.6.2 and 6.3.3.1 which read as follows there needs to be an understanding within the NFPA10 Committee that is then carried forth to all other Committees who draft extinguisher rating, size, performance, location, and travel distance requirements into their respective Standard(s):

5.6.2 In no case shall the requirements of the documents in 5.6.1 {70 other cross referenced NFPA standards containing extinguisher requirements} be less than those specified in this standard.

6.3.3.1 Where hand portable fire extinguishers are installed or positioned for obstacle, gravity / three-dimensional or pressure fire hazards, the actual travel distance to the hazard shall not exceed 30-feet unless otherwise specified (See 5.6.1)

At present there are disconnects between NFPA 10 and the cross-referenced standards with regard to extinguishers. These disconnects set up competing requirements which may place two NFPA standards in conflict with each other when 5.6.2 is not being applied. Several NFPA standards cross-referenced in 5.6.1 set out less restrictive requirements for capacity while also increasing travel distances over the NFPA 10 levels. This results in the cross-referenced standard essentially violating NFPA 10 Section 5.6.2 but its happening on a perpetual basis, edition after edition.

If 5.6.2 is truly going to mean something and carry weight with extinguisher requirements then it needs to be re-established and ultimately all 70 cross referenced NFPA standards have to correlate their requirements to comply.

Along these lines there are many of the 70 cross-referenced standards which provide basically a circular reference pathway for code users. That means that through 5.6.1 a specific hazard or occupancy is listed so a code user leaves NFPA 10 and goes to that cross-referenced standard for portable extinguisher requirements. Once in that standard however the language provided only sends the user back to NFPA 10 without any specification of rating, capacity, or travel distance. Once in the detailed requirements of NFPA 10 the code user is left to 'fend for themselves' and often guess or extrapolate from an occupancy hazard table or other Chapter 5 language when the specific hazard really is not within the scope of building protection using the occupancy hazard tables methodology.

Example #1 - NFPA 30-A (2021) for Fuel Dispensing

Requires high-flow rated 10# ABC extinguishers between 15-feet and 50-feet of any dispenser. If a 20# ABC high-flow is installed the travel distance may be increased to 100-feet.

NFPA 6.3.3.1 requires a travel distance of less than 30-feet, unless otherwise specified. Does this mean that NFPA 10 could make a more restrictive requirement or does this mean that NFPA 30-A (or any other cross-referenced NFPA standard) can set a travel distance which exceeds 30-feet (less restrictive)? NFPA 10 5.6.1 would appear to say that only NFPA 10 could set a travel distance of more than 30-feet. How say the 10 Committee?

Example #2 - NFPA 30 (2018) for Flammable & Combustible Liquids

Requires B:C rated extinguishers in storage rooms and storage areas based on the Extra Hazard rating & travel distances. There is no mention of Class A rating anywhere in that Code. Does this leave an NFPA 30 user to believe that all a given facility needs are B:C rated extinguishers? Does this mean that you are compliant by providing CO2 extinguishers (B:C rating) for protection of outside storage and handling areas? NFPA

10 5.4.2.4 seems to require those B:C extinguishers also have a Class A rating (except for outdoor storage areas). If true, wouldn't everyone be better served by revising the NFPA 30 language to match 10 or simply sending users directly from 30 into NFPA 10 without placing technical and selection criteria in both codes?

Example #3 NFPA 33-2018 (Spray Flammable Finishes) and NFPA 40-2019 (Cellulose Nitrate Film)

NFPA 33 Section 9.8 states 'Portable fire extinguishers shall be provided and located in accordance with NFPA 10.'

NFPA 40 Section 5.3 states 'Every room in which nitrate film is stored shall be provided with portable fire extinguishers in accordance with NFPA 10.'

So the code pathway was NFPA 10 5.6.1 #6 & #7 which took us to the codes and sections above... which sent us directly back to NFPA 10. What are the correct fire extinguisher ratings, size, travel distances, for spray flammable finish applications and cellulose nitrate film storage rooms (what about the non-film storage parts of the building?)? Why does NFPA 10 cross-reference to other NFPA standards which only send users directly back to NFPA 10 (circular code pathway)?

Statement of Problem and Substantiation for Public Comment

The problem is self evident in the examples provided. Where does NFPA 10 stand in relation to other NFPA standards which provide their own extinguisher requirements which are less restrictive or less effective than what NFPA 10 would require? This problem needs to be resolved within NFPA 10 and then pushed out to the other standards with a directive from above to correlate all standards to the NFPA 10 minumum or provide some really compelling justification for the disparity.

Related Item

• FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
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Submittal Date: Tue Apr 07 08:17:44 EDT 2020
Committee:

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended revision.

Public Comment No. 63-NFPA 10-2020 [New Section after 3.3.18.1]

TITLE OF NEW CONTENT

Firexo. A water-based agent with Firexo additive consisting of a combination of positive and negative hydrocarbons and designed for use as a multi-purpose extinguisant with an added benefit of fire retardant capability for all classes of fire i.e. Classes A, B, C (35,000 volts), D (Magnesium) and K.

3.3.18.1

Aqueous based solution with approximately 50% dry and wet chemical additives, supplemented with anti-freeze material demonstrating extinguishing capability at low temperature freezing points.

3.3.18.2

Firexo can also act as a fertilizing agent after a fire is extinguished enhancing and aiding plant regeneration to restore the natural environment post fire.

Statement of Problem and Substantiation for Public Comment

Firexo (our product) is not listed in NFPA 10 alongside water, foam, dry powder, and CO2 as a way to extinguish a fire.

Related Item

• Public Input (PI) tied to existing definition, 3.3.18.

Submitter Information Verification

Submitter Full Name: Scot Smith
Organization: Firexo
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 28 20:18:45 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material (no related first draft item). The term 'Firexo' is a trade name and cannot be referenced in the standard. The product would not comply with with 4.1.1 (compliance with ANSI/UL standards).

Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]

5.2.2 Class B Fires.

Class B fires ~~are fires in flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases~~ involve liquids and gases which are ignitable when stored, utilized, released, spilled, or discharged onto surfaces or into the atmosphere .

Statement of Problem and Substantiation for Public Comment

The NFPA 10 standard does not define what a flammable or combustible liquid is. Multiple other NFPA standards contain defintions of flammable and/or combustible liquids but there is no direct language within NFPA 10. The NFPA 30 committee is currently reviewing how liquids are defined and may be revising their document in the future. For purposes of providing portable fire extinguisher protection the matter is more straight forward in that any liquid or gas which could be ignited and serve as fuel for combustion needs to have Class B fire extinguisher protection. Since the form and properaties of liquids and gases can dramatically effect their ignition and burning properties our definition of Class B fires must be broad to ensure that all possible liquids and gases which could become involved in or support a fire are covered. Once that has been established there are other sections within NFPA 10 that provide further requirements for extinguisher selection. If NFPA 10 defines Class B fires in this section broadly then other document sections can focus on more specific properties.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 10-NFPA 10-2020 [Section No. 5.4.1.1]	
Public Comment No. 11-NFPA 10-2020 [Section No. 5.4.1.2]	
Public Comment No. 12-NFPA 10-2020 [Section No. 5.4.1.3]	
Public Comment No. 21-NFPA 10-2020 [Section No. 5.5.4.1]	
Public Comment No. 22-NFPA 10-2020 [Section No. 5.5.4.4]	

Related Item

- Committee Input #54

Submitter Information Verification

Submitter Full Name: David Phelan
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Affiliation: Not Representing any Entity or Client
Street Address:
City:
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Submittal Date: Wed Apr 01 16:44:59 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected but see related SR
Resolution:	SR-1-NFPA 10-2020
Statement:	The examples are not needed in the body of the standard.

Public Comment No. 10-NFPA 10-2020 [Section No. 5.4.1.1]

5.4.1.1* Light Hazard.

Light hazard occupancies shall be classified as locations where the quantity and combustibility of Class A combustibles and ~~Class B flammables~~ /or Class B hazards are low ~~and fires~~ with relatively low rates of heat release ~~are expected~~ . These occupancies consist of fire hazards having normally expected quantities of Class A combustible furnishings, and/or the total quantity of Class B ~~flammables~~ hazards typically expected to be present is less than 1 gal (3.8 L) and/or 2 standard cubic feet (SCF) in any room or area.

Statement of Problem and Substantiation for Public Comment

The change to Class B fires is submitted with CI #54 so once the term Class B is defined in the document (5.2.2) the use of the term 'Class B hazardss' throughout the rest of the document would be all encompassing under the definition. Also, since Class B hazards include gases there needs to be some means or measure as to when gaseous fuels are present how they impact occupancy classification unless otherwise specified by another NFPA standard.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]	Defines the Class B fuel terminology
Public Comment No. 11-NFPA 10-2020 [Section No. 5.4.1.2]	
Public Comment No. 12-NFPA 10-2020 [Section No. 5.4.1.3]	

Related Item

- CI #54

Submitter Information Verification

Submitter Full Name: David Phelan
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Street Address:
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Submittal Date: Wed Apr 01 17:02:02 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: No technical substantiation has been provided for the proposed revision. The comment adds a new criterion for certifying portable fire extinguishers at the second draft stage, which needs to undergo public review via submittal as a public input.

Public Comment No. 11-NFPA 10-2020 [Section No. 5.4.1.2]

5.4.1.2* Ordinary Hazard.

Ordinary hazard occupancies shall be classified as locations where the quantity and combustibility of Class A combustible materials is moderate and/or Class B ~~flammables are moderate and fires with moderate rates of heat release are expected.~~ hazards are present. These occupancies consist of fire hazards that only occasionally contain Class A combustible materials beyond normal anticipated furnishings, and/or the total quantity of Class B ~~flammables~~ hazards typically expected to be present is from 1 gal to 5 gal (3.8 L to 18.9 L) and/or more than 25 standard cubic feet (SCF) but less than 100 standard cubic feet (SCF) in any room or area.

Statement of Problem and Substantiation for Public Comment

Class B fuels are defined in Public Comment #9 (5.2.2) and once that change is addressed the remainder of the NFPA 10 document can simply refer to 'Class B hazards'. Also, adds guidance for when gases are present and how to classify their occupancy hazard. The use of standard cubic feet (SCF) is a means to equalize all gas quantities for standard temperature and pressure (STP) regardless of physical storage (compressed, liquefied).

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]	Definition of Class B fuels
Public Comment No. 10-NFPA 10-2020 [Section No. 5.4.1.1]	Light Hazard Occupancy
Public Comment No. 12-NFPA 10-2020 [Section No. 5.4.1.3]	

Related Item

• CI #54

Submitter Information Verification

Submitter Full Name: David Phelan
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Street Address:
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Submittal Date: Wed Apr 01 17:10:16 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: No technical substantiation has been provided for the proposed revision. The comment adds a new criterion for certifying portable fire extinguishers at the second draft stage, which needs to undergo public review via submittal as a public input.

Public Comment No. 12-NFPA 10-2020 [Section No. 5.4.1.3]

5.4.1.3* Extra Hazard.

Extra hazard occupancies shall be classified as locations where the quantity and combustibility of Class A combustible material are high or where high amounts of Class B ~~flammables are~~ hazards are present and rapidly developing fires ~~with high rates of heat release are expected~~ are expected . These occupancies consist of fire hazards involved with the storage, packaging, handling, or manufacture of Class A combustibles, and/or the total quantity of Class B ~~flammables~~ hazards expected to be present is more than 5 gal (18.9 L) and/or more than 100 standard cubic feet (SCF) in any room or area.

Statement of Problem and Substantiation for Public Comment

Addresses proposed definition of Class B hazards from CI #54 / Public Comment #9, 10, & 11. Adds measure of gases which would be considered an extra hazard for occupancy classification purposes.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]	Definition of Class B Fires
Public Comment No. 10-NFPA 10-2020 [Section No. 5.4.1.1]	Light Hazard Occupancy
Public Comment No. 11-NFPA 10-2020 [Section No. 5.4.1.2]	Ordinary Hazard Occupancy

Related Item

- CI #54

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 01 17:17:37 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: No technical substantiation has been provided for the proposed revision. The comment adds a new criterion for certifying portable fire extinguishers at the second draft stage, which needs to undergo public review via submittal as a public input.

Public Comment No. 50-NFPA 10-2020 [New Section after 5.5.1]

5.5.1.3
Multiple extinguishers installed to separately comply with the building and occupancy protection requirements are permitted but must be prominently identified in accordance with Chapter 6.

Statement of Problem and Substantiation for Public Comment

When multiple extinguishers are co-located with different ratings or specific hazard purposes they must be signed or placarded accordingly to ensure the novice user makes the correct selection. This concept was previously buried in suggested Annex language and was deleted by PC #49 and moved into the body of the Code for Chapter 5 with companion requirements in Chapters 6 & 7.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 49-NFPA 10-2020 [Section No. A.5.5.3]	
Public Comment No. 51-NFPA 10-2020 [New Section after 7.10]	
Public Comment No. 52-NFPA 10-2020 [New Section after 6.1.1.3]	

Related Item

- FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
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Submittal Date: Mon Apr 13 09:47:22 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The proposed language does not relate to selection of extinguishers.

Public Comment No. 48-NFPA 10-2020 [Section No. 5.5.1]

5.5.1 General.

Where fire extinguishers have more than one letter classification (such as ~~2~~ 3 -A:~~20~~ 40 -B:C), they shall be permitted to satisfy the requirements of each letter class.

Statement of Problem and Substantiation for Public Comment

It doesn't seem like good form for the fire extinguisher standard Committee to incorporate an example fire extinguisher which is no longer representative of multipurpose fire extinguisher ratings that are available.

Related Item

• FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
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Zip:
Submittal Date: Mon Apr 13 09:36:59 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted
Resolution: SR-13-NFPA 10-2020
Statement: The revision provides a better example.

Public Comment No. 47-NFPA 10-2020 [New Section after 5.5.2]

5.5.2.1

Fire extinguishers with Class C ratings shall be provided for buildings which contain electrical power systems and electrical energy storage systems.

Statement of Problem and Substantiation for Public Comment

If electrical energy or electrical energy storage systems are present wouldn't they pose a hazard to novice users who are only provided with Class A rated fire extinguishers and deploy them on burning combustibles involving or adjacent to electrical energy ? A paper products storage building or area within a building only indicates Class A hazard potential but the building or storage area likely contains lighting and power.

Related Item

• FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
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Affiliation: Not Representing any Entity or Client
Street Address:
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Zip:
Submittal Date: Mon Apr 13 09:28:55 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The comment is considered to be new material. Electrical hazards are addressed in 5.5.3.

Public Comment No. 21-NFPA 10-2020 [Section No. 5.5.4.1]

5.5.4.1* Extinguishers for Pressurized ~~Flammable Liquids and~~ Liquid and Pressurized Gas Fires.

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

Statement of Problem and Substantiation for Public Comment

Removes the word 'flammable' from the section heading to make it clear that this requirement applies to Class B Fires which are pressurized liquids or pressurized gases. This eliminates any question or confusion as to whether it would also apply to combustible liquids, pyrophoric gases, acids, oxidizing liquids, etc which are indeed ignitable at standard temperature and pressure but are not classified as 'flammable' based on their other material properties.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]	

Related Item

- CI # 54

Submitter Information Verification

Submitter Full Name: David Phelan
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Affiliation: Not Representing any Entity or Client
Street Address:
City:
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Zip:
Submittal Date: Fri Apr 03 11:54:23 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted
Resolution: SR-2-NFPA 10-2020
Statement: The revision removes the word 'flammable' from the section heading to make it clear that this requirement applies to Class B fires, which involve pressurized liquids or pressurized gases. This eliminates any question or confusion as to whether it would also apply to combustible liquids, pyrophoric gases, acids, oxidizing liquids, etc., which are indeed ignitable at standard temperature and pressure, but are not classified as 'flammable' based on their other material properties.

Public Comment No. 60-NFPA 10-2020 [Section No. 5.5.4.1]

5.5.4.1* Extinguishers for Pressurized Flammable Liquids and Pressurized Gas Fires.

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

Large-capacity dry chemical, or Firexo (3.3.18 definition) extinguishers of 10 lb (4.54 kg) or greater and with a discharge rate of 1 lb/ sec (.45 kg/sec) or more shall be selected to protect these fires.

Statement of Problem and Substantiation for Public Comment

Our product isn't listed in NFPA 10 alongside water, foam, dry powder, CO2 etc

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 61-NFPA 10-2020 [Section No. 5.5.4.3]	Related Item

• Public Input (PI) tied to existing text, 5.5.4.1. We feel our product isn't listed in NFPA 10 alongside water, foam, dry powder, CO2 etc.

Submitter Information Verification

Submitter Full Name: Scot Smith
Organization: Firexo
Street Address:
City:
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Zip:
Submittal Date: Tue Apr 28 17:27:14 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material (no related first draft item). The term 'Firexo' is a trade name and cannot be referenced in the standard. The product would not comply with with 4.1.1 (compliance with ANSI/UL standards).

Public Comment No. 95-NFPA 10-2020 [Section No. 5.5.4.2]

No original or new content was specified

Statement of Problem and Substantiation for Public Comment

Current wording indicates a preference for one type of extinguishing medium and seems to be a bias toward others. UL rating are performance test of the fire control/extinguishment capability of the agent, and this should be sufficient to address the fire threat. In the instance of equal UL ratings user preference should be the determining factor.

'Clean agents' have been used in the aviation environment for more than 50 years (halons and halocarbons). Over that time frame numerous minimum performance tests have been conducted. The attached report and the below citations are just one example of the effectiveness of clean agents when used to combat 3-D fires.
The scenarios cited below both separately and simultaneously involved a one dimensional fire (pool on concrete), two dimensional (engine nacelle) and three dimensional (ignited fuel in transition from nacelle to pool).

DOT/FAA/AR-95/87 Full-Scale Evaluations of Halon 1211 Replacement Agents for Airport Fire Fighting, author Joseph A. Wright October 1995
This report describes the evaluation of … candidate agents to… in terms of extinguishment time and quantity of agent required to extinguish unique flight line type test fires. These results were well within acceptable limits of agents for airport use. (a clean agent) was approved for use at FAA certificated airports as a complementary extinguishing agent.
5.2 SIMULATED ENGINE NACELLE RUNNING FUEL FIRE TESTS. (Excerpt)
This event simulated a fire in the afterburner (low elevation) end of a simulated jet engine where fuel is allowed to spill from the afterburner onto a concrete surface below. The event required penetration of the agent into a three-dimensional space (the nacelle) as well as extinguishment of a pool fire directly on the concrete.

5.1 THREE-DIMENSIONAL, INCLINED-PLANE TEST. (Excerpt)
The data show that (clean agent) was very effective on this fire scenario.

It was anticipated that this fire would be very difficult to extinguish for (sic 'clean') … agents. This running fuel fire scenario is three-dimensional and presents a unique challenge for the firefighter because of the combination of running fuel and a hot metal reignition source at the edges of the ramp and at the base of the pan.

9. CONCLUSION. (Excerpt)
…The (clean agent) was more effective than Halon 1211 in extinguishing the difficult three-dimensional, inclined-plane running fuel fire test.

Related Item

• FR 63

Submitter Information Verification

Submitter Full Name: James Lonergan
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Zip:
Submittal Date: Mon May 04 11:13:59 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The comment contains no recommended revision.

Public Comment No. 61-NFPA 10-2020 [Section No. 5.5.4.3]

5.5.4.3 Obstacle Fires.

Selection of a fire extinguisher for this type of hazard shall be based on one of the following:

(1) Extinguisher containing a vapor-suppressing foam agent

(2) * Multiple extinguishers containing non-vapor-suppressing Class B agents intended for simultaneous application

(3) Larger capacity extinguishers of 10 lb (4.54 kg) or greater and with a minimum discharge rate of 1 lb/sec (0.45 kg/sec)

Selection of a fire extinguisher for this type of hazard shall be based on one of the following;

(1) Extinguisher containing a vapor-suppressing foam agent, or Firexo

(2) Multiple extinguishers containing non vapor suppressing Class B agents intended for simultaneous application.

(3) Larger capacity extinguishers of 10 lb (4.54kg) or greater with a minimum discharge rate os 1 lb/sec (.45 kg/sec).

Statement of Problem and Substantiation for Public Comment

We feel our product isn't listed in NFPA 10 alongside water, foam, dry powder, CO2 etc.

Related Public Comments for This Document

Related Comment	Relationship
PI, Public Comment No. 60-NFPA 10-2020 [Section No. 5.5.4.1]	

Related Item

• PI, Public comment related to NFPA 10, 5.5.4.1

Submitter Information Verification

Submitter Full Name: Scot Smith
Organization: Firexo
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 28 17:27:53 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material (no related first draft item). The term 'Firexo' is a trade name and cannot be referenced in the standard. The product would not comply with with 4.1.1 (compliance with ANSI/UL standards).

Public Comment No. 22-NFPA 10-2020 [Section No. 5.5.4.4]

5.5.4.4* Water-Soluble ~~Flammable~~ Liquid Fires (Polar Solvents).

Aqueous film-forming foam (AFFF) and film-forming fluoroprotein (FFFP) foam types of fire extinguishers shall not be selected for the protection of water-soluble flammable or combustible liquids, unless specifically referenced on the fire extinguisher's nameplate.

Statement of Problem and Substantiation for Public Comment

Clears up that the requirement would apply to both flammable and combustible liquids which are water-soluble polar solvents. As currently written it would appear that combustible water-soluble polar solvents are not subject to the extinguisher agent requirements. The change also removes the specific naming of covered polar solvents (alcohols, acetone, esters, ketones, and 'so forth') because this is clearly not an all inclusive list and a term in the code 'so forth' is hardly enforceable or definitive language. NFPA 10's purpose is to identify the classification which is contraindicated (water soluble polar solvents which are subject to ignition). The four examples give just enough vague and incomplete information to help well meaning people make bad decisions. It is not within this Committe's scope to define or itemize what constitutes an ignitable water soluble polar solvent. How many of us know that methanol and ethanol are technically 'alcohols' that happen to be water soluble polar solvents, even though they aren't listed? Did we know that acetonitirile is an acetone derivative and is also a flammable water soluble polar solvent? Since we don't mention dimethyl sulfoxide does that mean it isn't an ignitable water soluble polar solvent or do we expect the user of NFPA 10 to somehow know that it is indeed a combustible water soluble polar solvent under the 'and so forth' category of our text?

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 10-2020 [Section No. 5.2.2]	

Related Item

• CI # 54

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 03 12:01:15 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted

Resolution:	SR-3-NFPA 10-2020
Statement:	The revision clarifies that the requirement applies to both flammable and combustible liquids, which are water-soluble, polar solvents.

Public Comment No. 52-NFPA 10-2020 [New Section after 6.1.1.3]

6.1.1.4

Where multiple fire extinguishers with different ratings or operating characteristics are co-located to protect multiple hazard classes or specific hazards each extinguisher shall be provided with clear and legible signage or placards to indicate their specific hazard use or protection rating.

6.1.1.4.1

The size, color combination, and verbiage of each sign or placard shall be approved by the Authority Having Jurisdiction.

6.1.1.4.2

Individual signage or placards shall be provided for each extinguisher in the grouping and shall be placed immediately above or adjacent to each installed extinguisher.

6.1.1.4.3

Where installed in cabinets the required signage or placard may be installed on the face of the cabinet door provided it does not interfere with cabinet visibility, conspicuity, or fire resistance rating.

Statement of Problem and Substantiation for Public Comment

Provides installation signage requirements where multiple different extinguishers are grouped or co-located.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 49-NFPA 10-2020 [Section No. A.5.5.3]	
Public Comment No. 50-NFPA 10-2020 [New Section after 5.5.1]	
Public Comment No. 51-NFPA 10-2020 [New Section after 7.10]	

Related Item

- FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity of Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 13 09:58:39 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected but see related SR
Resolution:	SR-4-NFPA 10-2020
Statement:	The revision provides installation signage requirements where multiple different extinguishers are grouped or co-located. The requirement for size, color combination, and verbiage of each sign or placard as proposed in PC-52 will require further study.

Public Comment No. 15-NFPA 10-2020 [Section No. 6.1.3.6]

6.1.3.6– *

Fire extinguishers installed on the exterior of a vehicle or within an enclosed operator or passenger compartment of a vehicle shall be located at a point recommended by the vehicle manufacturer.

A.6.1.3.6

The installation of fire extinguishers on or inside occupied areas of a vehicle must consider a multitude of regulations and certifications which address occupant and pedestrian safety. This code does not supercede any other applicable regulations and must instead be applied harmoniously to ensure that the extinguisher is conspicuously located and readily accessible without rendering the vehicle or its operation in violation of any other design, manufacture, or ~~on vehicles shall be installed in approved strap~~ operation regulation.

6.1.3.6.1

Fire extinguishers installed on the exterior of a vehicle or within an enclosed operator or passenger compartment of a vehicle shall be secured in a bracket recommended by the vehicle manufacturer and the specific fire extinguisher manufacturer.

6.1.3.6.2

Fire extinguishers installed on the exterior of a vehicle must be protected by a cover or bag which is prominently identified and does not prevent the extinguisher from being readily accessible.

6.1.3.6.3

Fire extinguishers installed inside enclosed vehicle cargo and equipment compartments not subject to human occupancy shall be installed in strap -type brackets specifically designed for ~~this application~~ the specific fire extinguisher and vehicle .

Statement of Problem and Substantiation for Public Comment

Vehicle installations (BTW 'vehicle' is not defined or limited by NPA 10 so this section applies to ATV/UTV's up through ??? where's the line drawn?) Since we are currently writing a single section to apply to every concieveable 'vehicle' then we have to defer to the vehicle manufacturer since they are the most informed source of information on potential g-force exposure, pinch points, occupant protection & restraint, etc before we just prescribe where and how a bracketed fire extinguisher is located and attached to the vehicle. An improper exterior or occupant area installation can lead to fatal or severe outcomes for persons inside or adjacent to the vehicle. NFPA 10 needs to focus on the extinguisher being identifiable and accessible in addition to protecting it from harm and its ongoing maintenance. This is a similar approach to how NFPA 505 addresses fire extinguishers on powered industrial trucks - they defer to the truck manufacturer for installation location and brackets. Protective bagging is within the scope of NFPA 10 as it ensures the exterior extinguisher is not damaged by grit, grime, sprays, etc. When an extinguisher is located within an enclosed cabinet or space without human occupancy then it is reasonable to mount it with a strap type bracket designed for the application. We do not need nor should we attempt to secure approval from every AHJ through which the vehicle may travel for the bracketing of a cabinet mounted extinguisher.

Related Item

• FR #12

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing Any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 02 11:11:06 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The standard should not contain recommendations. It is not known if all vehicle manufacturers have the stated recommendations. Brackets are not manufactured for specific vehicles.

Public Comment No. 85-NFPA 10-2020 [Section No. 6.1.3.9]

6.1.3.9 Installation Height.

6.1.3.9.1

Fire extinguishers having a gross weight not exceeding 40 lb (18.14 kg) shall be installed so that the top of the fire extinguisher is not more than 5 ft (1.53 m) above the floor.

6.1.3.9.2

Fire extinguishers having a gross weight greater than 40 lb (18.14 kg) (except wheeled types) shall be installed so that the top of the fire extinguisher is not more than 3½ ft (1.07 m) above the floor.

6.1.3.9.3

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

Fire Extinguishers in corridors, walkways, passageways, or aisles that are installed between 27 inches and 80 inches above the finished floor, the mounted object can protrude no more than four inches from the wall.

Statement of Problem and Substantiation for Public Comment

This is inline with the Americans with Disabilities Act (ADA) regulations

Related Item

• PI

Submitter Information Verification

Submitter Full Name: Nathan Elkins
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 15:45:02 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The proposed requirement does not align with the ADA. The comment is new material.

Public Comment No. 34-NFPA 10-2020 [Section No. 6.1.3.11.1]

6.1.3.11.1 ~~Locked~~ Cabinets.

6.1.3.11.1.1

Cabinets housing fire extinguishers shall not be locked, except where fire extinguishers are subject to malicious use and cabinets include a means of emergency access as approved by the Authority Having Jurisdiction .

6.1.3.11.1.2

Cabinets housing fire extinguishers with break-front panels shall be provided with breaker bars ~~or hammers, designed~~ , hammers, or other device provided by the cabinet manufacturer that is intended for accessing the extinguisher during a fire emergency.

6.1.3.11.1.3

Cabinets housing fire extinguishers shall be sized to accommodate the intended extinguisher with adequate clearance around the top and sides of the extinguisher to ensure immediate access and retrieval using two hands simultaneously.

Statement of Problem and Substantiation for Public Comment

This change imports the former Annex language of A.6.1.3.1.1 into the body of the Code to make adequate clearance inside of cabinets mandatory and not just a suggestion. It assumes the 'worst-case scenario' where a novice user grabs the extinguisher from the sides using both hands to retrive from the cabinet. The title of the section was modified to reflect all cabinets and maintains the existing language for locked cabinets. It also prevents field-installed locking devices on a cabinet not manufactured for locking by mandating that the emergency entry tool or device must be provided from the cabinet manufacturer.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 33-NFPA 10-2020 [Section No. A.6.1.3.11]	
Public Comment No. 33-NFPA 10-2020 [Section No. A.6.1.3.11]	

Related Item

- FR # 15

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 07 10:16:12 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The comment constitutes new material. The proposed language establishes a sole source for purchasing from manufacturers of cabinets. The comment suggests two hands must be available for picking up an extinguisher.

Public Comment No. 26-NFPA 10-2020 [Section No. 6.1.3.11.6 [Excluding any Sub-Sections]]

~~For fire resistance–rated walls, only surface-mounted cabinets or listed fire-rated cabinets shall be installed~~ The installation of cabinets and extinguishers shall maintain the integrity of fire and smoke protected construction .

Statement of Problem and Substantiation for Public Comment

There are more types and designations of fire and smoke protected contruction that must have their integrity maintained than just 'walls'. Also, smoke protected construction (common in institutional occupancies) may not have a measured fire resistance duration but membrane penetrations in smoke rated assemblies must still comply with the prevailing building or life safety codes. This language makes it clear that a fire extinguisher installation, whether it be a cabinet or recess pocket, is not relieved of any requirement and must maintain the assembly integrity.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 27-NFPA 10-2020 [Section No. 6.1.3.11.6.1]	

Related Item

- PI # 118

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 09:11:58 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: Elimination of the existing requirement will add confusion. Extinguisher cabinet installers will not necessarily have the qualifications needed to maintain the integrity of fire or smoke barriers. Maintaining the listing requirement for fire rated cabinets is important.

Public Comment No. 27-NFPA 10-2020 [Section No. 6.1.3.11.6.1]

6.1.3.11.6.1

Listed fire resistance rated cabinets shall be installed in accordance with the cabinet manufacturer's installation instructions.

6.1.3.11.6.2

Listed fire resistance rated cabinets shall not be field-modified to accommodate local conditions without the written approval of the cabinet manufacturer.

6.1.3.11.6.3

Listed fire resistance rated cabinets shall not diminish the structural integrity or load carrying capability of individual framing members or the overall assembly.

6.1.3.11.6.4

Listed fire resistance rated cabinets shall not encroach or project into an accessible path of travel beyond limits established by any locally adopted accessibility standards.

6.1.3.11.6.5

The provisions of 6.1.3.11.6 shall not apply ~~to existing installations~~ to installations previously approved by the AHJ or verified to maintain required fire and smoke resistance requirements .

Statement of Problem and Substantiation for Public Comment

There are many more facets to the installation of an extinguisher cabinet in protected construction beyond whether the cabinet accomodates the extinguisher and is marked etc. The installation of a membrane penetration (something which creates an opening in one side of a protected assembly) is closely regulated by the model building codes (IBC & NFPA 5000 etc) and there needs to be language in NFPA 10 to address the goals of maintaining assembly integrity within the standard which is driving the installation of the extinguisher & cabinet. All of the sub-items ensure that the strict conditions of listing for a rated cabinet are upheld during installation and if there is an issue the AHJ enforcing NFPA 10 can directly and clearly cite the non-compliance regardless of who or how the building codes are enforced in a jurisidiction. Further, there are instances where extingushers are installed after construction and without language to this point the local fire code AHJ who is enforcing NFPA 10 may not have citable language to use if a cabinet installation in a rated assembly is clearly non-compliant. Lastly, the Committee has toyed with how to handle cabinets which were installed previously and may not meet current restrictive standards. The use of the word 'existing' is very problematic as anything is 'existing' once its done. This does not mean it was done correctly for the time period or that any AHJ approved the installation at that time. The new language resolves this by removing the word 'existing' and applying a previously approved tag to older installations. This shifts part of the burden of demonstrating compliance off the owner and onto the AHJ who would have to be able to articulate how it is known that no such prior approval was ever issued, such as a new extinguisher installed in an old building versus an old building with old extinguishers.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 26-NFPA 10-2020 [Section No. 6.1.3.11.6 [Excluding any Sub-Sections]]	

Related Item

- PI # 118

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 09:20:10 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The standard should not permit field modification of listed cabinets. Accessibility is outside the scope of NFPA 10.

Public Comment No. 28-NFPA 10-2020 [Section No. 6.6.2]

6.6.2

~~Maximum travel distance shall not exceed 30 ft (9.1 m) from the hazard to the extinguishers.~~

Class K portable fire extinguishers shall be located not less than 10-feet but not more than 20-feet in the path of egress from the cooking hazard, whether temporary or permanent, that they protect.

6.6.2.1

Where a cooking hazard is protected by a fixed fire extinguishing system, a placard shall be conspicuously posted near the Class K portable fire extinguisher that states the fixed fire protection system shall be actuated prior to using the fire extinguisher.

6.6.2.2

The Class K portable fire extinguisher and placard required by 6.6.2.1 shall be conspicuously located and within reach of the manual activator for the fire extinguishing system, if a manual activator is present.

6.6.2.3

The Authority Having Jurisdiction is permitted to modify the travel distance and location requirement of the Class K portable fire extinguisher required in 6.6.2 and 6.6.2.2 based on site conditions.

Statement of Problem and Substantiation for Public Comment

It is well understood that the Class K extinguisher is a secondary fire fighting element when fixed extinguishing systems are present and the standing requirement for the instruction placard is meant to reinforce this to a novice esuer under the heat of the moment. The placard requirement was relocated from 5.5.5.3 into Chapter 6 since the placard is an installation requirement and not an extinguisher selection requirement. The changes to extinguisher travel distance and location relative to the manual activator (if present) is intended to bring harmony to installations. NFPA 17-A (wet chemical) does not require a Class K portable extinguisher nor does it even reference to NFPA 10. Likewise NFPA 10 always had general and broad language about installing extinguishers in path of travel (6.1.3.2) but never clearly tied this to a path of egress from a kitchen or cooking area. The original public input (#37) is addressing a common field installation problem where the Class K is mounted more or less any old place convienent to the business without giving full thought to the hazard of passing a fire to retrieve an extinguisher and then getting cut off by the fire. The new clear language in this PC places all of the relevant installation language for Class K extinguishers into one single place within NFPA 10. It also brings together the two necessary elements of the fixed system manual activator and the portable extinguisher & placard. It makes little sense to put a placard with the extinguisher that says go do this first (pull manual activator) before using Class K extinguisher if the person (novice employee) then has to go hunt around for the 4-inch diameter metal pull ring somewhere on the wall. FYI - NFPA 17-A & NFPA 5000 do not specify a location for the manual activator other than requiring it be readily accessible in the path of egress (no distance rules in 17-A 5.2.1.10) unless modified by the AHJ. NFPA 17-A does have Annex material which describes the location of the manual activator as 10-20 feet from the cooking hazard. The model codes (IBC, IFC) already require that the manual activator be located between 10-20 feet from the hazard so as to be relatively safe from the immediate hazard while the employee is moving towards the exit. Why wouldn't we also want the Class K portable extinguisher and instruction placard co-located in the immediate vicinity of the manual activator??? In total these changes harmonize NFPA 10 17-A and the model codes with regard to where the manual activator is installed and that the Class K extinguisher and placard are also co-located in the same immediate vicinity to afford the best possible outcome from a novice user responding to a cooking fire event.

Related Item

• PI # 37

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 10:32:12 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: Some of the proposed language is new material. The existing 30-ft travel distance limit is appropriate. The proposed 10-ft minimum might not be practical in all cases. NFPA 96 addresses what is in the proposed 6.6.2.1 and 6.6.2.2.

Public Comment No. 14-NFPA 10-2020 [New Section after 6.7]

6.7.1

All solid fuel cooking operations, whether temporary or fixed, with a total firebox(es) volume larger than 5 cubic feet shall be provided with portable fire extinguisher protection required in 6.7 and must also comply with the hose protection requirements of NFPA 96 (14.7.9)

Statement of Problem and Substantiation for Public Comment

There has never been any direction provided to NFPA 10 users on how to handle a solid fuel cooking operation which is larger than 5 cubic feet in firebox volume. NFPA 96 has contained fire protection requirements for solid fuel operations including those larger than 5 cubic feet but NFPA 10 lacked any pointer or reference to get you there. If the AHJ doesn't locally adopt or use NFPA 96 then there it was problematic to get to the +5 ft3 requirements in NFPA 96. This change accomplishes two things; first, it makes it clear that NFPA 10 has an extinguisher requirement for all solid fuel operations and it is more restrictive than NFPA 96, regardless of firebox volume(s). Secondly, it provides a clear code pathway for an NFPA 10 user to get to NFPA 96 for the larger +5 ft3 firebox operations in existence - even if the AHJ does not locally adopt NFPA 96.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 13-NFPA 10-2020 [Section No. 6.7]	

Related Item

• FR #21

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 02 10:11:43 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: Reference to NFPA 96 in NFPA 10 which is an installation standard and not an occupancy standard, is not appropriate.

Public Comment No. 13-NFPA 10-2020 [Section No. 6.7]

6.7 Solid-Fuel Cooking Appliances.

All temporary or permanent solid-fuel cooking ~~appliances (~~ operations, whether ~~or not~~ under a hood ~~)~~ or not, with a total fire ~~boxes~~ box volume of 5 ft^3 (0.14 m^3) ~~volume~~ or less shall ~~have~~ be equipped with at least ~~a listed~~ one (1) 2-A~~-rated water-type fire extinguisher or a 1.6 gal (6 L) wet-chemical fire extinguisher that is listed for Class K fires~~ :K rated extinguisher provided between 10-feet and 20-feet of the cooking operation .

Statement of Problem and Substantiation for Public Comment

This change addresses two primary issues which arise during field compliance inspections. The first is that the section must apply to any solid fuel cooking operation whether temporary or permanent or under a hood or not. Our scope if portable fire extinguishers and our position should be clear in that solid fuel cooking operations require portable protection, period. There should be no gray area that a pop-up parade briquet pizza grill is somehow exempt because we don't differentiate from temporary / transient to fixed in building solid fuel operations. The second part of this change is to specify that the correct / best selection of extinguisher for solid fuel operations is an A:K extinguisher. Solid fuel cooking fires must be fought in two prongs. The first is to use the Class K saponifying agent to extinguish the flaming food and grease by-products and coat those surfaces and materials to prevent re-flash and reignition. The second prong of the attack is to use the cooling and quenching properties of the Class A rating to cool and extinguish the coals to further prevent re-flash by reducing the temperature which could burn off the saponification layer. By mandating the A:K extinguisher there is effectively no error by a novice operator in using the A water can before the K class extinguisher or in directing the discharge in a manner where the Class A washes away the saponification layer. A pressurized water can uses a forceul direct solid stream nozzle which will easily blast away and disrupt any saponification layer in place as well as possibly forcing the glowing coals and embers upwards out of the firebox thereby endangering the extinguisher operator or persons adjacent. An A:K extinguisher uses a lower velocity discharge nozzle and applicator which reduces the possibility of both problems in a single packaged extinguisher capable of handling both prongs of a solid fuel operation fire attack.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 14-NFPA 10-2020 [New Section after 6.7]	

Related Item

- FR #21

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 02 09:51:23 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The proposed 10-20 ft criterion would conflict with NFPA 96. It is not the committee's position to delete an acceptable extinguishing means in the form of 2A-rated water extinguishers.

Public Comment No. 98-NFPA 10-2020 [New Section after 7.1.2.1.4]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers

shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the

fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.
As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate
exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from
monthly to quarterly when the failure trends indicate an increase in reliability.
A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Russell Hudson
Organization: Michigan Medicine
Street Address:
City:
State:
Zip:

Submittal Date: Tue May 05 15:08:58 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 29-NFPA 10-2020 [Section No. 7.1.3]

7.1.3 Replacement ~~While Servicing~~ of Fire Extinguishers .

~~Fire extinguishers removed from service for maintenance or recharging shall be replaced by a fire extinguisher~~ Replacement fire extinguishers shall be suitable for the type of hazard(s) being protected and shall be of at least equal rating and operating properties .

7.1.3.1*

When the removal ~~and replacement~~ or replacement of fire extinguishers from installed locations is necessary or ~~desired during service, the~~ desired the owner shall be notified.

Statement of Problem and Substantiation for Public Comment

There are more reasons than just service or maintenance by which an extinguisher may be removed or replaced. This section would also apply if a previosuly installed extinguisher was found missing / stolen / vandalized etc. This is the only language in the Code whereby the act of replacing a previously installed extinguisher is addressed but it failed to address all replacements and focused only on service and maintenance.
Whenever, and why, a previously installed extinguisher is replaced it is now required that the replacement unit, which would be installed according to Chapter 6, be one which at a minimum has the same ratings (prior extinguisher may have had more than one rating) and also the same operating properties. Operating properties could easily include rate of agent flow, size / type of wheels (not all replacement extinguishers are handheld) type of hitch or handle, weather limitations, agent compatibility (putting a new ABC dry chem onto a flight line in place of a BC unit) etc.

Related Item

• PI # 123 • FR # 22

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Reprrsenting any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 06 11:05:45 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-17-NFPA 10-2020
Statement: There are more reasons than just service or maintenance for which an extinguisher may be removed or replaced. This section would also apply if a previously installed extinguisher was found missing, stolen, vandalized, etc. This is the only language in the standard whereby the act of replacing a previously installed extinguisher is addressed,

but it failed to address all replacements and focused only on service and maintenance.

Whenever and why a previously installed extinguisher is replaced, it is now required that the replacement unit, which would be installed according to Chapter 6, be one which, at a minimum, has the same ratings (prior extinguisher may have had more than one rating).

The new A.7.1.3 provides additional guidance on extinguisher replacement.

Public Comment No. 6-NFPA 10-2020 [Section No. 7.1.4]

7.1.4 Tags or Labels.

7.1.4.1

Tags or labels intended for recording inspections, maintenance, or recharging shall be affixed so as not to obstruct the fire extinguisher use, fire extinguisher classification, or manufacturer's labels.

7.1.4.2

_

Tags or labels intended for compliance with 7.1.4.1 that are no longer legible due to damage shall be replaced and affixed in the same manner as required by that section.

7.1.4.3 _

Labels indicating fire extinguisher use or classification, or both, shall be permitted to be placed on the front of the fire extinguisher.

7.1.4.4

Labels complying with 7.1.4.3 that are no longer legible due to damage shall be replaced by a manufacturer-approved label or, if unavailable, the extinguisher shall be replaced.

Statement of Problem and Substantiation for Public Comment

CI-55 requested public comment on language addressing damaged tags or labels and any actions required. This comment proposes to address both types of tags/labels in this section and will hopefully serve as a springboard for further discussion and, if needed, further refining/editing. It is assumed that the labels being addressed in the current 7.1.4.2 are manufacturer labels and would, therefore, have to be replaced by the same manufacturer and, if so badly damaged that use/classification are obscured and a replacement label is not an option, the extinguisher itself should be replaced.

Related Item

• CI-55

Submitter Information Verification

Submitter Full Name: Joe Scibetta
Organization: BuildingReports
Street Address:
City:
State:
Zip:
Submittal Date: Thu Mar 05 15:03:17 EST 2020
Committee: PFE-AAA

Committee Statement

Committee Rejected

Action:	
Resolution:	Changing a label would cause a portable fire extinguisher to lose its listing certification.

Public Comment No. 4-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.
This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Lennon Peake
Organization: Koffel Associates, Inc.
Affiliation: American Society of Healthcare Engineering
Street Address:
City:
State:
Zip:
Submittal Date: Tue Feb 18 10:37:05 EST 2020

Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but held

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards).

Public Comment No. 40-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ. ..

Statement of Problem and Substantiation for Public Comment

Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.
The added section provides a basis for implementing and supervising an Authority Having Jurisdiction (AHJ) approved performance-based program. The performance-based inspection, testing and maintenance (ITM) program would define the inspection requirements and establish a testing frequency that would demonstrate an acceptable level of operational reliability. The goal is to perform inspections based on the proven reliability of the extinguisher. The performance-based ITM program should adjust ITM frequencies proportionately based on failure rates of the inspected equipment. Performance-based program ITM frequencies may be increased or decreased from the prescriptive requirements when continued ITM has documented a higher or lower pass/failure rate as compared to the AHJ's performance standards.
For example, fire extinguisher monthly inspections could increase to twice a month when the failure rate exceeds the AHJ's expectations. Similarly, the frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A core requirement of a performance-based ITM program would be continual monitoring of fire extinguisher failure rates to determine if they exceed the maximum allowable failure rates as agreed upon with the AHJ. The process used to complete this review would be documented and be repeatable.

Related Item

• CI.50

Submitter Information Verification

Submitter Full Name: Adam Graybeal
Organization: Koffel Compliance LLC
Street Address:

City:
State:
Zip:
Submittal Date: Thu Apr 09 10:02:16 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 41-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

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7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers

shall be permitted to be inspected under a written performance-based program.

-

7.2.2.2 Goals established under a performance-based program shall provide assurance that the

fire extinguisher is maintained in proper condition.

-

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

-

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section provides a performance-based program for the inspection frequencies of fire extinguishers provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Danielle Brown
Organization: Koffel Compliance
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 10:03:20 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 42-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers

shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the

fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance based
inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate
exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Tricia Romano
Organization: Lockatong Engineering
Affiliation: HFMSNJ

Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 10:36:06 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 43-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to propose a performance-based option for inspection of fire extinguishers.

This new section provides a performance-based program
provided that approval is obtained by the AHJ. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of reliability. The goal is to balance inspection frequency with the reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies based on historical documented equipment reliability. Frequencies of inspection under the performance-based program may be increased or reduced from the prescriptive inspection requirements, when continued inspection and testing has
been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

For example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the AHJ. The process used to complete this review would need to be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Lauren Schrumpf
Organization: Koffel Compliance
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 12:24:59 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 44-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

Type your content here ...

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.
Allowing frequencies of inspection under a performance-based program could be extended or reduced from the inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.
This could show the proven reliability of the fire extinguisher and allow valuable labor to be spent where most needed, if the failure rate exceeds the limits set then inspections would be increased.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Mark A Sears
Organization: Faith Regional Health Services
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 13:18:44 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical

public comments from being held for the next edition.

Public Comment No. 45-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher and to adjust inspection frequencies based on historical data. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance. This concept can also be adjust if extinguishers have more frequent deficiencies under the adjusted inspection time period.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Allison Carey Ellis
Organization: Koffel Compliance, LLC
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 14:27:59 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 46-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers

shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the

fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.
This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performancebased
inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.
As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate
exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.
A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Rich Kirchner
Organization: Adventist Health Castle
Street Address:
City:
State:

Zip:

Submittal Date: Thu Apr 09 17:55:12 EDT 2020

Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 53-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

Type your content here ...7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

The comment is related to committee 50 to have a performance based option for fire extinguisher inspections. This section would be for creating and monitoring a performance based system with AHJ approval. Performance based inspections would allow for inspection frequencies to be set by performance data. Inspection frequencies would be extended or reduces based on historical reliability data.
A regular monitoring requirement would be part of the program to ensure extinguisher reliability.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: John Gotta
Organization: Knoxville Area Comm Hosp
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 14 15:21:29 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the

next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 73-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

...

Additional Proposed Changes

File Name	Description	Approved
.1588263216600		

Statement of Problem and Substantiation for Public Comment

his new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Russell Harbaugh
Organization: St Lukes Reg Medical Ctr
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 12:12:13 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 79-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Additional Proposed Changes

File Name	Description	Approved
.1588267208629		

Statement of Problem and Substantiation for Public Comment

I believe a performance based inspection program will demonstrate acceptable levels of operational reliability.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Nathan Jones
Organization: DHE Engineering
Affiliation: ASHE
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 13:18:46 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 82-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction (AHJ). The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the AHJ's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction’s expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Millions of dollars could be saved a year for healthcare with this type of change.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Sherrill Nardontonia
Organization: Wellspan Health
Street Address:
City:
State:
Zip:

Submittal Date: Thu Apr 30 14:57:27 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 83-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Additional Proposed Changes

File Name	Description	Approved
NFPA_Public_Comment.docx	This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers. This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance- based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance. As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability. A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.	

Statement of Problem and Substantiation for Public Comment

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate
exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease

from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name:	Norbert Birchmeier
Organization:	Hurley Medical Ctr
Affiliation:	MiSHE President (Michigan Society for Healthcare Engineering)
Street Address:	
City:	
State:	
Zip:	
Submittal Date:	Thu Apr 30 15:03:19 EDT 2020
Committee:	PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Public Comment No. 84-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section is meant to allow for the use of a performance-based program to determine the frequency of fire extinguisher inspections. A performance-based program can be used to determine the appropriate level operational reliability and thus determine the frequency of inspections. Based on historical data collected by each facility or organization, if fire extinguishers fail often, then the inspections need to be conducted more frequently. If the rarely fail, then then they can be inspected less frequently. The determination to change inspection rates would be subject to approval by the Authority Having Jurisdiction.

A performance-based program would continually evaluated the fire extinguisher failure rate and then determine the need for inspections at a greater or lesser rate as agreed upon by the Authority Having Jurisdiction.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Mike Stallbaumer
Organization: Nemaha Valley Comm Hospital
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 15:28:56 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 87-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

Type your content here ...

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers rather thamn the currently monthly requirement.
This new section would provides a basis for the implemention and monitoring of an authority having jurisdiction approved performance-based program. The idea is to establish throgh a performance-based inspection program, the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. This will enable a balance between the inspection frequency and the proven reliability of the extinguisher. The performance-based inspection program's purpose is also to adjust inspection frequencies in proportion with historical documented equipment reliability. Under a performance-based program, frequencies of inspection may be lenghtened or reduced from the existing prescriptive inspection requirements when documention indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance has been proven.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Shay Rankhorn
Organization: Ballad Health
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 08:54:52 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 92-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Christopher Blum
Organization: Oswego Health
Affiliation: CNYSHE
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 15:25:27 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 93-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

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Statement of Problem and Substantiation for Public Comment

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Related Item

• “CI 50”

Submitter Information Verification

Submitter Full Name: Al Som
Organization: Mayo Clinic Hospital
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 19:22:49 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 94-NFPA 10-2020 [New Section after 7.2.1.2.1]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.
This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: David Soens
Organization: Wisconsin Department Of Health
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 20:11:57 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 96-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This Public Comment is related to Committee Input 50 to allow a performance-based option for inspection of fire extinguishers.

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Larry Peterson
Organization: Baptist Medical Center South
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 04 13:43:34 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 97-NFPA 10-2020 [New Section after 7.2.1.2.1]

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

Inspection processes that do not enhance building safety and increase the cost of maintaining health care facilities should be eliminated. They increase the cost of health care, and undermine trust in the code development and enforcement process. The current inspection frequency for fire extinguishers is such a requirement. A review of the inspection records at St. Luke's in Meridian, Idaho of more than 200 monthly fire extinguisher inspections over the last 28 months showed a failure rate of 0. More than 5,600 individual inspections have yielded 0 failures. During this same period, fire extinguishers have been used for 0 fire interventions. A reduction in the inspection frequency should be allowed for those facilities who can prove the reliability of their systems and effectiveness of their maintenance practices.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Jesse Barnum
Organization: St Lukes Hospital
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 05 11:41:39 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 90-NFPA 10-2020 [New Section after 7.2.1.4]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Goals established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

This new section provides a basis for implementing and monitoring a performance-based program provided that approval is obtained by the authority having jurisdiction. The concept of a performance-based inspection program is to establish the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability. The goal is to balance the inspection frequency with proven reliability of the extinguisher. The goal of a performance-based inspection program is also to adjust inspection frequencies commensurate with historical documented equipment reliability. Frequencies of inspection under a performance-based program may be extended or reduced from the prescriptive inspection requirements when continued inspection and testing has been documented indicating a higher or lower degree of reliability as compared to the authority having jurisdiction's expectations of performance.

As an example, fire extinguisher inspection could increase from monthly to weekly when the failure rate exceeds the authority having jurisdiction's expectations or the inspection frequency could decrease from monthly to quarterly when the failure trends indicate an increase in reliability.

A fundamental requirement of this performance-based program would be the continual monitoring of fire extinguisher failure rates and determining if they exceed the maximum allowable failure rates as agreed upon with the authority having jurisdiction. The process used to complete this review would be documented and be repeatable.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: Travis Newberry
Organization: Starr Regional Medical Center
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 14:38:21 EDT 2020

Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 39-NFPA 10-2020 [Section No. 7.2.2 [Excluding any Sub-Sections]]

Periodic inspection of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) Visibility of the extinguisher or means of indicating the extinguisher location

(3) Access to the extinguisher

(4) Pressure gauge reading or indicator in the operable range or position

(5) Fullness determined by weighing or hefting for self-expelling-type extinguisher, cartridge-operated extinguishers, and pump tanks

(6) Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers

(7) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

(8) Extinguisher fits securely in bracket or on hanger

(9) Extinguisher bracket or hanger is securely mounted to supporting surface or object

(10) Extinguisher cabinet, if present, is in good condition and operating order

(11) Fire rated cabinets, if also present, are intact and maintaining assembly integrity

(12) Extinguisher bag or soft cover is in good working condition

Statement of Problem and Substantiation for Public Comment

The changes address aspects of an extinguisher inspection beyond the physical extinguisher but are still critical elements of maintaining the extinguisher in compliance with the requirements in effect at its original installation under Chapter 6. A pristine extinguisher hanging on a wall with a broken or dangling bracket is not a compliant and needs to be addressed (and citable) under the periodic inspection process. Chapter 7 already has language proposed to require maintenance of these elements but they are not part of the specified inspection process which would verify, at regular intervals, if maintenance was needed to ensure the extinguisher installation was being upheld as required under Chapter 6.

Related Item

• FR # 48

Submitter Information Verification

Submitter Full Name: David Phelan
Organization: NFPA 10 Committee Member
Affiliation: Not Representing any Entity or Client
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 09 08:46:35 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Rejected
Resolution:	The public comment constitutes new material because the proposed language is not germane to the action taken on FR-48.

Public Comment No. 86-NFPA 10-2020 [New Section after 7.2.2.1]

TITLE OF NEW CONTENT

7.2.2 Performance-Based Option

7.2.2.1 As an alternative means of compliance with 7.2.1, subject to the AHJ approval, fire extinguishers shall be permitted to be inspected under a written performance-based program.

7.2.2.2 Performance objectives established under a performance-based program shall provide assurance that the fire extinguisher is maintained in proper condition.

7.2.2.3 Technical justification for inspection intervals shall be documented in writing.

7.2.2.4 The performance-based option shall include historical data acceptable to the AHJ.

Statement of Problem and Substantiation for Public Comment

Public Comment to Committee Input 50 - Performance-based option for inspection of fire extinguishers.

Performance-based inspection testing and maintenance programs are becoming more common as a method of responsible fiscal use of resources. The objective is to adjust inspection frequencies based on the data accumulated from past inspections.

This new provision will allow for implementing and monitoring a performance-based program when approved by the authority having jurisdiction. A performance-based inspection program establishes the requirements and frequencies at which inspection must be performed to demonstrate an acceptable level of operational reliability.

A fire extinguisher inspection program that is based on performance would require more frequent inspections when the failure rate exceeds the performance objectives or would allow for less frequent inspections when the records show a consistent reliability.

This performance-based program would require continuous monitoring of inspections to verify the he program meets the parameters established and approved by the authority having jurisdiction. As with the current requirements, the documentation of the inspections and compliance with the performance objectives would need to be maintained for review.

Related Item

• CI 50

Submitter Information Verification

Submitter Full Name: James Peterkin
Organization: TLC Engineering
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 01 07:56:48 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material because CI-50 did not include draft performance-based code language. The language as submitted allows a performance-based program but provides no enforceable criteria for such a program (as does performance-based design requirements in other codes and standards). It is noted that PC-4, which is essentially identical to this public comment, was rejected but held for the next revision cycle. This action is intended to prevent more than 20 nearly identical public comments from being held for the next edition.

Public Comment No. 3-NFPA 10-2020 [Section No. 7.2.4.1.1]

7.2.4.1.1

Where manual inspections are conducted, records for manual inspections shall be kept on a tag or label attached to the fire extinguisher, ~~on~~ as well as an inspection checklist maintained on file, or by an electronic method.

Statement of Problem and Substantiation for Public Comment

If the only record for inspection is a tag or a label attached to the fire extinguisher itself, there is a chance that that record could become lost or stolen. Having a checklist along with the tag or label will ensure that a record for inspection is maintained elsewhere. The electronic method would solve the issue, but not everyone uses that method.

Related Item

• FR-48

Submitter Information Verification

Submitter Full Name: Joseph Giroux
Organization: North MS Medical Center
Street Address:
City:
State:
Zip:
Submittal Date: Mon Feb 10 15:05:25 EST 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but held

Resolution: The public comment constitutes new material since the proposed text is not germane to the action taken on FR-48. It is being held for the next revision cycle.

Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]

7.2.4.1.2.1* Where an external visual examination is performed in accordance with 7.3.2.1.1, a record in accordance with 7.3.4 shall be required in lieu of the record required by 7.2.4.1.2.

Statement of Problem and Substantiation for Public Comment

The change to record keeping criteria should appear in the inspection section. Although the recommendation is to delete the text in the annual examination section, it might be best for the criteria to appear in both locations for clarity.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	Inspection and record keeping
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	Inspection and record keeping
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	Inspection and record keeping
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	

Related Item

- FR 52

Submitter Information Verification

Submitter Full Name: Marvin Garriss
Organization: Synergy Consortium Group, LLC
Affiliation: FEMA Fire Equipment Manufacturer's Association
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 12:19:15 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-9-NFPA 10-2020

Statement: The change to record keeping criteria should appear in the inspection section. Although the recommendation is to delete the text in the annual examination section, it might be best for the criteria to appear in both locations for clarity.

Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]

7.3.2.1.1

At the time of the annual external visual examination, a check of at least the inspection items of 7.2.2 and the external examination items of 7.3. 2 .1 shall be conducted.

Statement of Problem and Substantiation for Public Comment

The new paragraph could be misunderstood to only require the inspection items of 7.2.2. The added text provides the necessary clarification.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	Inspection and record keeping
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	Inspection and record keeping
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	

Related Item

- FR 52

Submitter Information Verification

Submitter Full Name: Marvin Garriss
Organization: Synergy Consortium Group, LLC
Affiliation: FEMA Fire Equipment Manufacturer's Association
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 30 12:00:03 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted
Resolution: SR-12-NFPA 10-2020
Statement: Paragraph 7.3.2.1.1 could be misunderstood to only require the inspection items of 7.2.2. The added text provides the necessary clarification.

Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]

~~**7.3.2.1.2** – Record.~~

~~**7.3.2.1.2.1** –~~

~~The record for the annual visual examination, including 7.3.2.1.1 , shall be permitted to be recorded as required by 7.3.4 .~~

~~**7.3.2.1.2.2** –~~

~~The record for the annual visual examination, including 7.3.2.1.1 , shall not be required to be recorded in accordance with 7.2.4 .~~

Statement of Problem and Substantiation for Public Comment

The change to record keeping criteria should appear in the inspection section.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	Inspection and record keeping
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	Inspection and record keeping
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	Inspection and record keeping
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	
Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]	

Related Item

- FR 52

Submitter Information Verification

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Submittal Date: Thu Apr 30 13:09:01 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action:	Accepted
Resolution:	SR-11-NFPA 10-2020
Statement:	The change to record keeping criteria should appear in the inspection section.

Public Comment No. 35-NFPA 10-2020 [Section No. 7.6]

7.6 Electronic Monitoring System Maintenance.

7.6.1 Electronic Monitoring ~~.~~

~~The components of the monitoring device/~~

System Inspection

T he fire extinguisher electronic monitoring system shall be

~~tested and maintained annually in accordance with the manufacturer's maintenance manual, with the following items included as a minimum~~

inspected semi-annually and at a minimum include the following :

(1) Power supply inspection/battery change

(2) Obstruction sensor inspection

(3) Location sensor inspection

(4) Pressure indication inspection

(5) Connection continuity inspection *(see 7.6.1.1 and 7.6.1.~~2~~)*

7.6.1.1

One hundred percent of all units shall be tested upon initial installation or reacceptance ~~with verification of~~ to verify communication between the device connecting the fire extinguisher electronic monitoring device/system and the fire alarm control or other control unit to ensure proper signals are received at the control unit and remote annunciator(s), if applicable.

7.6.1.2

One hundred percent of all units shall be tested annually ~~with verification of~~ to verify communication between the device connecting the fire extinguisher electronic monitoring device/system and the fire alarm control unit or other control unit to ensure proper signals are received at the control unit and remote annunciator(s), if applicable.

7.6.2 Fire Alarm System.

Where ~~used in conjunction with fire~~ connected to a fire alarm systems, the fire extinguisher electronic monitoring devices shall be inspected, tested, and maintained in accordance with *NFPA 72*.

7.6.2.1

Where used in conjunction with non-fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected, tested, and maintained as required in 7.6.1 through 7.6.1.2 and the manufacturer's installation and maintenance manual(s).

7.6.3 Corrective Action.

Where the inspection, testing, or maintenance of any monitoring system reveals a deficiency, immediate corrective action shall be taken.

Statement of Problem and Substantiation for Public Comment

The requirements for the inspection, testing, and maintenance of fire alarm system connected extinguisher monitoring devices is already established in NFPA 72(2019) and it requires the following:
Table 14.3.1 #19-1 visual inspection of FE monitoring devices on a semi-annual basis.
Table 14.4.3.2 #19-1 testing at acceptance and annually thereafter.

The changes here apply to non-fire alarm system electronic fire extinguisher monitoring and the modifications bring the inspection and testing requirements into sync with those for NFPA 72 connected systems. There is no reason or justification to apply a less restrictive inspection routine to non-fire alarm connected systems than that which is required by NFPA 72 for fire alarm connected extinguisher monitoring. The goal is the same and the backbone control system is irrelevant to the end result.
The terminology was also modified to make it clear that the NFPA 72 requirements or this section's requirements apply to the inspection, testing, and maintenance of the equipment. Each term is specifically defined and triggers a different activity. Without all three together something is being left out in the overall process. Inspection is a visual activity, testing is a physical demonstration of function, and maintenance is what is done to keep it working over the course of time and exposure.

Related Item

• FR # 24 • FR # 23

Submitter Information Verification

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Submittal Date: Tue Apr 07 12:14:14 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but held
Resolution: The proposed language requires additional research and correlation with NFPA 72. It is being held for the next revision cycle.

Public Comment No. 77-NFPA 10-2020 [Section No. 7.8.2.3.1]

7.8.2.3.1

The premixed agent in liquid-charge-type AFFF and FFFP fire extinguishers shall be replaced ~~following the fire extinguisher manufacturer's instructions, not to exceed the 5-year hydrostatic test interval~~ at least once every 3 years .

Statement of Problem and Substantiation for Public Comment

NFPA standards should not provide two levels of safety.

Related Item

• FR 25

Submitter Information Verification

Submitter Full Name: Marvin Garriss
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Submittal Date: Thu Apr 30 13:02:06 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: No technical substantiation has been provided to change the text from the first draft language.

Public Comment No. 37-NFPA 10-2020 [Section No. 7.8.4.8.1.1]

7.8.4.8.1.1

Each fire extinguisher shall have a tag or label securely attached that indicates recharging was performed.

7.8.4.8.1.1.1

Labels which are directly affixed to the extinguisher cylinder shall not be located on the front face in the 120-degree area measured as 60-degrees left and 60-degrees right of the cylinder centerline.

Statement of Problem and Substantiation for Public Comment

The UL standards for dry chem, water based, and CO2 extinguishers reserve the front face of the extinguisher cylinder for the required pictograms, instructions, and text necessary to inform a novice user as to extinguisher deployment. These requirements are specifically to prohibit and eliminate extraneous information which could confuse or confound a novice user under emergency conditions. It would be inappropriate for NFPA 10 to somehow require a permanently affixed label recording maintenance without enforcing that it not violate the original UL listing requirements. It is likely that the majority of extinguisher service providers are not aware of the UL listing requirements and limitations on front facing labels so by placing this language in NFPA 10 it is likely to reachthe field personnel and correct the long history of sticker and label violations which surround us. While we are setting this good example when it comes to required maintenance labels and stickers we should also be addressing the other markings which are field-installed on installed extinguishers. See CI # 55.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 24-NFPA 10-2020 [Global Input]	

Related Item

• FR # 27

Submitter Information Verification

Submitter Full Name: David Phelan
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Submittal Date: Tue Apr 07 16:19:05 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The proposed requirement is adequately addressed by 6.1.3.9.2.

Public Comment No. 51-NFPA 10-2020 [New Section after 7.10]

Where multiple extinguishers are installed or grouped suplemental signage and informational placards installed to identify extinguisher hazards or classes shall be maintained in legible condition at all times.

Statement of Problem and Substantiation for Public Comment

Provides maintenance language to be cited if the instructional signs posted for co-located fire extinguishers is not legible or in good condition.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 49-NFPA 10-2020 [Section No. A.5.5.3]	
Public Comment No. 50-NFPA 10-2020 [New Section after 5.5.1]	
Public Comment No. 52-NFPA 10-2020 [New Section after 6.1.1.3]	

Related Item

- FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
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Street Address:
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Submittal Date: Mon Apr 13 09:53:15 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-5-NFPA 10-2020
Statement: The revision provides maintenance language to be cited if the instructional signs posted for co-located fire extinguishers are not legible or in good condition. The term "at all times" as proposed in PC-51 is superfluous and has not been included in the revision.

Public Comment No. 36-NFPA 10-2020 [Section No. 7.10]

7.10 Cabinets.

~~Missing breaker bars or hammers and broken, damaged, or missing break-front panels on fire extinguisher cabinets shall be replaced.~~

Fire extinguisher cabinets shall be maintained in working order at all times in accordance with the manufacturer's instructions.

7.10.1

Whenever damage is found to a cabinet it shall be immediately repaired in accordance with the cabinet manufacturer's instructions or guidance.

7.10.2

When the operating handles, knobs, front panels containing identification labels or symbols, tinted covers on exterior cabinets, hammers, breaker bars, or other operating tool or device is missing it shall be replaced immediately.

7.10.3

Fire resistance rated cabinets shall be maintained at all times to ensure the integrity of fire and smoke rated construction and the original listing or approval.

7.10.3.1

Where the doors, glass panels, or latches on fire resistance rated cabinets are missing or damaged they shall be repaired or replaced in accordance with the manufacturer's instructions or guidance.

7.10.4

Exterior fire extinguisher cabinets shall be maintained according to the manufacturer's instructions to prevent damage to the extinguisher or the intrusion of water, dust, dirt, insects, or other contaminants.

7.10.5

Fire extinguisher cabinets shall not be used for the storage of any non-fire protection equipment.

7.10.6

Fire extinguisher bags and soft covers shall me maintained in good condition free of rips, tears, cuts, or damaged fasteners that could permit contaminant entry.

7.10.6.1

Fire extinguisher bags and soft covers that can not be repaired to restore contaminant free integrity shall be replaced.

7.10.6.2

Fire extinguisher bags and soft covers which are faded or have illegible markings shall be replaced.

Statement of Problem and Substantiation for Public Comment

There are no fire extinguisher cabinet maintaince requirements in Chapter 7 so now we have something to work from.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 38-NFPA 10-2020 [New Section after 7.13]	
Public Comment No. 38-NFPA 10-2020 [New Section after 7.13]	

Related Item

• FR # 53

Submitter Information Verification

Submitter Full Name: David Phelan
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Street Address:
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Submittal Date: Tue Apr 07 12:41:11 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but held
Resolution: The proposed language is new material and is being held for the next revision cycle.

Public Comment No. 38-NFPA 10-2020 [New Section after 7.13]

7.14 Extinguisher Cabinets and Mounting

Relocate current 7.10 to new 7.14 to better organize Chapter 7. This places all extinguisher requirements together before addressing cabinets and mounting in its own section with plenty of space to accomodate future requirements.

Statement of Problem and Substantiation for Public Comment

Fire extinguisher cabinets and mounting maintenance is currently sandwiched in between requirements for recharging and service collars. By moving all cabinets and mounting maintenance requirements to end of section there is room to accomodate future requirements while keeping those related specifically to the extinguisher grouped together.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 36-NFPA 10-2020 [Section No. 7.10]	
Public Comment No. 36-NFPA 10-2020 [Section No. 7.10]	

Related Item

- FR # 53

Submitter Information Verification

Submitter Full Name: David Phelan
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Submittal Date: Thu Apr 09 08:32:06 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected
Resolution: The current location is appropriate.

Public Comment No. 76-NFPA 10-2020 [New Section after A.4.1.3]

A.4.1.4.2 Some water based extinguishers manufactured prior to August 15, 2002 have a "C" rating on their nameplates but contain an extinguishing agent that does not comply with this requirement. Owners of these extinguishers should determine the suitability of these extinguishers.

Statement of Problem and Substantiation for Public Comment

Since all water mist extinguishers should contain an agent that is electrically nonconductive, paragraph 4.1.4.3 is being deleted. The deletion may not be enough to solve problems in the field. At issue is whether a water mist extinguisher manufactured prior to August 15, 2002 should be removed from service or simply have the agent comply with the electrical conductivity requirements (de-ionized water).

Related Item

• FR 3

Submitter Information Verification

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Submittal Date: Thu Apr 30 12:54:14 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-15-NFPA 10-2020
Statement: Since all water mist extinguishers should contain an agent that is electrically nonconductive, 4.1.4.3 is being deleted. The deletion may not be enough to solve problems in the field. At issue is whether a water mist extinguisher manufactured prior to August 15, 2002 should be removed from service or simply have the agent comply with the electrical conductivity requirements (de-ionized water).

Public Comment No. 69-NFPA 10-2020 [Section No. A.5.1]

A.5.1

Many Class A fires start as small fires that are often smoldering with little surface burning. A Class A fire that involves a flammable liquid is initially more intense and spreads rapidly. An example of this type of fire is where an open container of flammable liquid is spilled in a room containing furnishings and is ignited. The fire will rapidly involve combustible materials, including the furnishings in the vicinity of the spill. The flammable liquid works as an accelerant and speeds up the rate at which the fire spreads. There is a marked difference in the rates of flame spread where flammable liquids are involved in a combustible materials fire versus one involving only common combustibles. Large-capacity extinguishers of 10 lb (4.54 kg) or greater and having a discharge rate of 1 lb/sec (0.45 kg/sec) or more are most appropriate for the protection of these hazards.

Statement of Problem and Substantiation for Public Comment

The main reason for the annex is to explain the need for a high flow extinguisher.

Related Item

• FR 19

Submitter Information Verification

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Submittal Date: Thu Apr 30 11:38:20 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted
Resolution: SR-14-NFPA 10-2020
Statement: The main reason for the annex language is to explain the need for a high-flow extinguisher.

Public Comment No. 49-NFPA 10-2020 [Section No. A.5.5.3]

~~A.5.5.3~~ —

~~If fire extinguishers intended for different classes of fires are grouped, their intended use should be marked conspicuously to aid in the choice of the proper fire extinguisher at the time of a fire. In an emergency, the tendency is to reach for the closest fire extinguisher. If this fire extinguisher is of the wrong type, users could endanger themselves and the property they are endeavoring to protect. Wherever possible, it is preferable to have only those fire extinguishers available that can be safely used on any type of fire in the immediate vicinity.~~

Statement of Problem and Substantiation for Public Comment

The co-location of multiple fire extinguishers with differing classes or specialties is permissible but requires additional markings or signage to prevent the hazard to a novice user of deploying the wrong class extinguisher on a given fire. This language should not be suggested or optional but rather mandatory in the body of the text. There is no reason to not require signage as protecting the novice user is a key element of the overall value and safety of portable fire extinguishers. The concept will be identified in Chapter 5 and the signage requirements will be in Chapter 6 for installation issue. There should also then be maintenance language in Chapter 7.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 50-NFPA 10-2020 [New Section after 5.5.1]	
Public Comment No. 51-NFPA 10-2020 [New Section after 7.10]	
Public Comment No. 52-NFPA 10-2020 [New Section after 6.1.1.3]	

Related Item

• FR # 63

Submitter Information Verification

Submitter Full Name: David Phelan
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Submittal Date: Mon Apr 13 09:40:09 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Accepted
Resolution: SR-6-NFPA 10-2020

Statement:	New text inserted in Ch. 6 (SR-4, new 6.1.1.4) addresses this subject in the body of the standard.

Public Comment No. 33-NFPA 10-2020 [Section No. A.6.1.3.11]

A.6.1.3.11

~~In addition to providing storage, extinguisher cabinets provide protection for extinguishers and prevent accidental bumping. The cabinet cavity must be big enough to accommodate the extinguisher, so the extinguisher must be selected before selecting the cabinet. The final selection of the cabinet should allow adequate room for the extinguisher to be easily removed.~~

~~Fire extinguishers in cabinets can be monitored for tampering or theft by means of a switch and local alarm to indicate when the extinguisher is removed from the cabinet~~ If desired, fire extinguisher cabinets can be equipped with a local sounder device which annunciates when the cabinet door is opened and/or if the extinguisher is removed .

Statement of Problem and Substantiation for Public Comment

A local sounder option in an extinguisher cabinet does not necessarily signal extinguisher removal. Some devices sound upon door opening while the extinguisher remains properly located in the cabinet. Other devices or options exist which could sound on the removal of the extinguisher from the cabinet via a tether or sensor. These options are discretionary on the part of the owner and have no impact on NFPA 10 compliance provided that the device, sounder, or other technology does not interfere with immediate access to and removal of the extinguisher.
The other language relating to the cabinet size is not Annex worthy - it is body of the code requirement. NFPA 10 should not be suggesting that the cabinet be large enough to accomodate the extinguisher and not impair removal / retrieval it should be mandating that adequate space be provided inside the cabinet to ensure immediate access and retrieval. See Public Comment 34 for 6.1.3.11 to move such language to body of Code.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 34-NFPA 10-2020 [Section No. 6.1.3.11.1]	
Public Comment No. 34-NFPA 10-2020 [Section No. 6.1.3.11.1]	

Related Item

• FR # 15

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Submittal Date: Tue Apr 07 10:07:21 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The existing language better reflects the committee's intent.

Public Comment No. 65-NFPA 10-2020 [Section No. A.7.1.3.1]

A.7.1.3.1

Removal or replacement of fire extinguishers during service should be done with the owner's knowledge and permission. This ensures that any replaced equipment meets with the owner's expectations and has been documented to address the applicable fire extinguisher record-keeping requirements.

~~Replacement fire extinguishers should equal the rating, agent capacity, and type of the removed extinguisher. The extinguisher should use a hanger or bracket~~ The replacement extinguisher should be suitable for the type of hazard being protected and be of at least equal rating. The owner should be provided with documentation regarding the type, make and model of both the extinguisher being removed and the replacement extinguisher. The installer should verify that the hanger, bracket, or extinguisher cabinet is the proper one for the replacement extinguisher .

Statement of Problem and Substantiation for Public Comment

New text should reflect the requirement (7.1.3). The owner needs information on the existing extinguisher and the replacement. The mounting hardware needs to be appropriate for the extinguisher.

Related Item

• FR 22

Submitter Information Verification

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Submittal Date: Thu Apr 30 10:49:51 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR

Resolution: SR-17-NFPA 10-2020

Statement: There are more reasons than just service or maintenance for which an extinguisher may be removed or replaced. This section would also apply if a previously installed extinguisher was found missing, stolen, vandalized, etc. This is the only language in the standard whereby the act of replacing a previously installed extinguisher is addressed, but it failed to address all replacements and focused only on service and maintenance.

Whenever and why a previously installed extinguisher is replaced, it is now required that the replacement unit, which would be installed according to Chapter 6, be one

which, at a minimum, has the same ratings (prior extinguisher may have had more than one rating).

The new A.7.1.3 provides additional guidance on extinguisher replacement.

Public Comment No. 70-NFPA 10-2020 [New Section after A.7.2.1.3]

TITLE OF NEW CONTENT

A.7.2.2(5) To perform a monthly visual inspection, a stored pressure extinguisher is removed from its mounting location. A determination of fullness is made at that time. An empty extinguisher with a pressure gauge reading of being pressurized should be removed and a replacement extinguisher complying with 7.1.3 installed in its place.

Statement of Problem and Substantiation for Public Comment

It is not obvious to many owners performing a monthly inspection that the extinguisher needs to be removed from its mounting location and given a thorough inspection. Empty extinguishers with faulty pressure gauge readings should be removed from service when they are discovered during a monthly inspection.

Related Item

• FR 48

Submitter Information Verification

Submitter Full Name: Marvin Garriss
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Submittal Date: Thu Apr 30 11:46:23 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-18-NFPA 10-2020
Statement: It is not obvious to many owners performing a monthly inspection that the extinguisher needs to be removed from its mounting location and given a thorough inspection. Empty extinguishers with faulty pressure gauge readings should be removed from service when they are discovered during a monthly inspection.

Public Comment No. 75-NFPA 10-2020 [New Section after A.7.2.2.3]

A.7.2.4.1.2.1 A separate monthly inspection and separate record for that inspection is not needed for the month that an annual external examination is performed, since the monthly inspection items are checked as part of the annual external examination (see 7.3.2.1.1).

Statement of Problem and Substantiation for Public Comment

The change to record keeping criteria should appear in the inspection section. Although the recommendation is to delete the text in the annual examination section, it might be best for the criteria to appear in both locations for clarity.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	Inspection and record keeping
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	Inspection and record keeping
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	Inspection and record keeping
Public Comment No. 71-NFPA 10-2020 [Section No. 7.3.2.1.1]	
Public Comment No. 74-NFPA 10-2020 [New Section after 7.2.4.1.2]	
Public Comment No. 78-NFPA 10-2020 [Section No. 7.3.2.1.2]	

Related Item

- FR 52

Submitter Information Verification

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Submittal Date: Thu Apr 30 12:42:41 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected but see related SR
Resolution: SR-9-NFPA 10-2020

Statement: The change to record keeping criteria should appear in the inspection section. Although the recommendation is to delete the text in the annual examination section, it might be best for the criteria to appear in both locations for clarity.

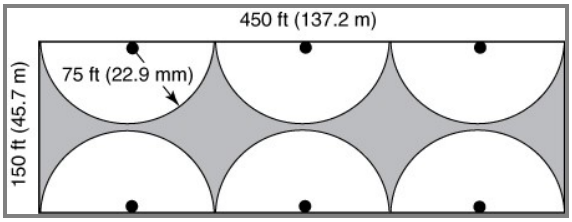
Public Comment No. 5-NFPA 10-2020 [Sections E.3.10, E.3.11, E.3.12, E.3.13]

Sections E.3.10, E.3.11, E.3.12, E.3.13, E.3.14

E.3.10

Placement of the calculated quantity of six extinguishers, along outside walls as shown in Figure E.3.10, would not be acceptable because the travel distance rule is clearly violated. The shaded areas indicate “voids” that are farther than 75 ft (22.9 m) to the nearest extinguisher. The dots represent extinguishers.

Figure E.3.10 A Diagrammatic Representation of Extinguishers Located Along the Outside Walls of a 450 ft × 150 ft (137.2 m × 45.7 m) Building.



E.3.11

Example 1 shows that calculations using the maximum protection area limits [11,250 ft^2 (1045 m^2)] allowed in Table 6.2.1.1 for the sample building will not provide sufficient extinguishers to also satisfy the travel distance requirement. Performing additional calculations using extinguishers with lower ratings will result in more extinguishers. The goal of performing additional calculations is to develop an economic solution that satisfies the calculated quantity of extinguishers required while meeting the travel distance requirement.

E.3.12

Example 2 is for extinguishers having the minimum ratings permitted by Table 6.2.1.1 with corresponding minimum protection areas. As the number of lower-rated extinguishers increases, meeting the travel distance requirement generally becomes less of a problem. As shown in Figure E.3.12, providing 12 extinguishers mounted on building columns would both satisfy the calculated quantity of extinguishers for light hazard occupancy and meet the maximum travel distance requirement.

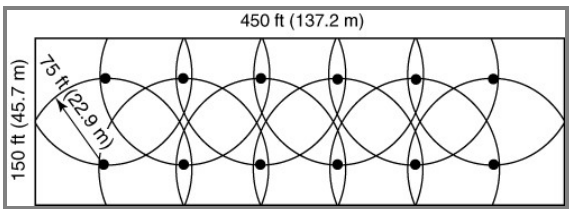
Example 2:

$$\frac{67{,}500\ \text{ft}^2}{6000\ \text{ft}^2} = 12\ \text{2-A extinguishers for light hazard occupancy}$$

$$\frac{67{,}500\ \text{ft}^2}{3000\ \text{ft}^2} = 23\ \text{2-A extinguishers for ordinary hazard occupancy} \quad \textbf{[E.3.12]}$$

$$\frac{67{,}500\ \text{ft}^2}{4000\ \text{ft}^2} = 17\ \text{4-A extinguishers for extra hazard occupancy}$$

Figure E.3.12 Configuration Representing 12 Fire Extinguishers Mounted on Building Columns in Which Requirements for Both Travel Distance and Fire Extinguisher Distribution Are Met.



E.3.13

Example 2 results in an excessive number of extinguishers for satisfying the 75 ft (22.9 m) travel distance rule for ordinary and extra hazard occupancies. Therefore, a new set of calculations are developed for extinguishers having ratings that correspond to the protection areas of 6000 ft^2 (557 m^2) in order to result in a calculated quantity of 12 extinguishers, which satisfies the 75 ft (22.9 m) travel distance rule as shown in Figure E.3.10.

Additional Proposed Changes

File Name	Description	Approved
NFPA_10_Comments_-Figure.E.3.10_and_statement_in_Section_E.3.14..docx	Observation, Discussion and Suggestion for Figure.E.3.10 and Section E.3.14 - showing 12-nos of Fire Extinguishers	

Statement of Problem and Substantiation for Public Comment

Clarification of Figure. E.3.10 and interpretation of Section E.3.13 and E.3.14

Related Item

• PI, CI

Submitter Information Verification

Submitter Full Name: Arnel Caburnay
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Zip:
Submittal Date: Wed Feb 19 12:16:58 EST 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The comment is new material. Specific language has not been provided. The submitter is encouraged to resubmit the proposal as public input for the next revision cycle with specific recommended code language.

Reference to Section E.3.10 and Figure E.3.10, "A Diagrammatic Representation of Extinguishers Located Along the Outside Walls of a 450 ft × 150 ft (137.2 m × 45.7 m) Building." The calculated six extinguishers with 4-A rating for light hazard is clearly violated the rules.

Now, considering the statement and using Example 3 calculation of Section E.3.14, it suggested that increasing to twelve numbers of extinguishers with 2-A rating (Light Hazard) will satisfy the extinguisher requirements, while I am in agreement with the quantities but it will not satisfy the travel distance.

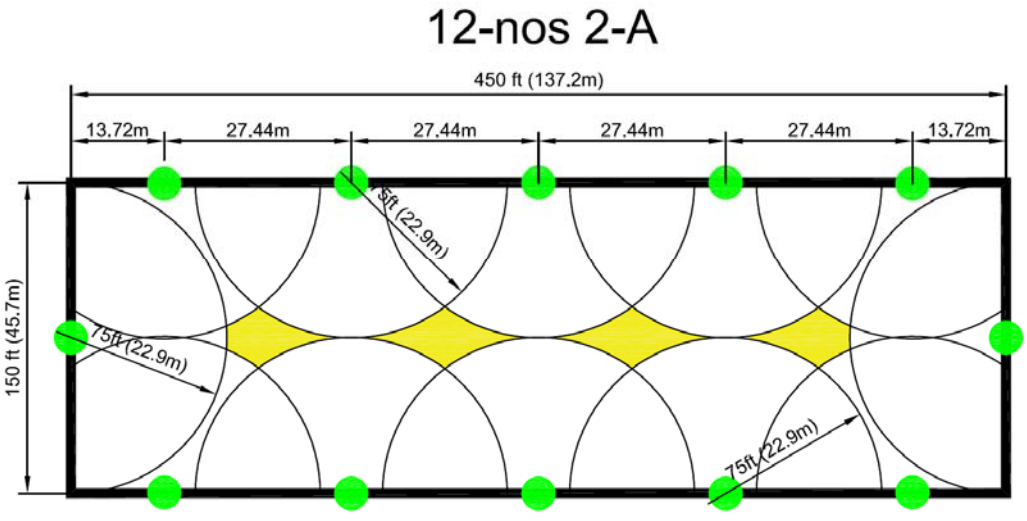
Included in this comment is a detailed drawing, reflecting the building length and width (L=137.2m, W=45.7m) similar to Fig. E.3.10. I tried to position the extinguishers at least more than five different arrangement with 12-no's of extinguishers, but I only attached the arrangement that have the least void areas, which shows the travel distance in part of the building is not achievable (dotted green is the extinguishers). Note, because there is no mention of columns inside the building (in this particular), therefore the extinguisher will be shown in the walls only.

Observation:

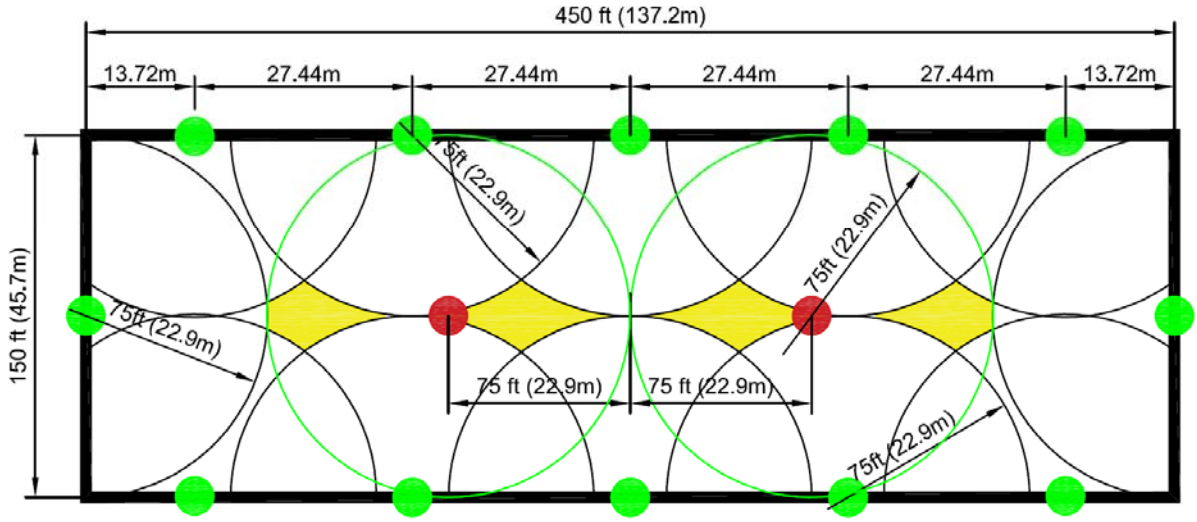
I believe the original diagrammatic presentation of Figure.E.3.10 and statement in Section E.3.14 needs to be reviewed. Because, neither the Figure nor the statement is workable (even with twelve extinguishers), unless a statement will be added, ***"the void areas – shall be provided with an additional extinguisher and extinguishers shall be installed in accordance with the relevant requirements in this standard and be protected at all times."*** (see diagrammatic representation with 14-no's extinguisher-increased area of protection to 80,000 ft^2). But adding such statement may have implication with the other section of this Standard, needs to be verified.

Recommendation/Suggestion:

1. The length and width of Figure E.3.10 to be replaced with appropriate sizes in a manner that when calculating the total area of the building using six or twelve extinguishers will satisfy the protection area and travel distance or say Figure E.3.10a will be added to show fourteen extinguisher, where the two added extinguisher as shown in red dots (see below with 14-nos extinguisher's diagrammatic representation) – fourteen extinguisher will have increased area of protection to 80,000 ft^2.
2. In FIGURE E.3.10 A Diagrammatic Representation of Extinguishers Located Along the Outside Walls (of a 450 ft × 150 ft (137.2 m × 45.7 m) Building. – The title "A Diagrammatic Representation of Extinguishers Located Along the Outside Walls of a 450 ft × 150 ft (137.2 m × 45.7 m) Building" should be read as "A Diagrammatic Representation of Extinguishers Located *Along the Walls* of a 450 ft × 150 ft (137.2 m × 45.7 m) Building".



14-nos 2-A



Δ Table E.3.6 Quantity of Extinguishers for Class A Hazards

Area (ft^2)	Light Hazard			Ordinary Hazard					Extra Hazard			
	2-A	3-A	4-A and up	2-A	3-A	4-A	6-A	10-A and up	4-A	6-A	10-A	20-A and up
	6000	9000	11,250	3000	4500	6000	9000	11,250	4000	6000	10,000	11,250
10,000	2	2	1	4	3	2	2	1	3	2	1	1
20,000	4	3	2	7	5	4	3	2	5	4	2	2
30,000	5	4	3	10	7	5	4	3	8	5	3	3
40,000	7	5	4	14	9	7	5	4	10	7	4	4
50,000	9	6	5	17	12	9	6	5	13	9	5	5
60,000	10	7	6	20	14	10	7	6	15	10	6	6
70,000	12	8	7	24	16	12	8	7	18	12	7	7
80,000	14	9	8	27	18	14	9	8	20	14	8	8
90,000	15	10	8	30	20	15	10	8	23	15	9	8
100,000	17	12	9	34	23	17	12	9	25	17	10	9
110,000	19	13	10	37	25	19	13	10	28	19	11	10
120,000	20	14	11	40	27	20	14	11	30	20	12	11
130,000	22	15	12	44	29	22	15	12	33	22	13	12
140,000	24	16	13	47	32	24	16	13	35	24	14	13
150,000	25	17	14	50	34	25	17	14	38	25	15	14
160,000	27	18	15	54	36	27	18	15	40	27	16	15
170,000	29	19	16	57	38	29	19	16	43	29	17	16
180,000	30	20	16	60	40	30	20	16	45	30	18	16
190,000	32	22	17	64	43	32	22	17	48	32	19	17
200,000	34	23	18	67	45	34	23	18	50	34	20	18
210,000	35	24	19	70	47	35	24	19	53	35	21	19
220,000	37	25	20	74	49	37	25	20	55	37	22	20
230,000	39	26	21	77	52	39	26	21	58	39	23	21
240,000	40	27	22	80	54	40	27	22	60	40	24	22
250,000	42	28	23	84	56	42	28	23	63	42	25	23
260,000	44	29	24	87	58	44	29	24	65	44	26	24
270,000	45	30	24	90	60	45	30	24	68	45	27	24
280,000	47	32	25	94	63	47	32	25	70	47	28	25
290,000	49	33	26	97	65	49	33	26	73	49	29	26
300,000	50	34	27	100	67	50	34	27	75	50	30	27
310,000	52	35	28	104	69	52	35	28	78	52	31	28
320,000	54	36	29	107	72	54	36	29	80	54	32	29
330,000	55	37	30	110	74	55	37	30	83	55	33	30
340,000	57	38	31	114	76	57	38	31	85	57	34	31
350,000	59	39	32	117	78	59	39	32	88	59	35	32
360,000	60	40	32	120	80	60	40	32	90	60	36	32
370,000	62	42	33	124	83	62	42	33	93	62	37	33
380,000	64	43	34	127	85	64	43	34	95	64	38	34
390,000	65	44	35	130	87	65	44	35	98	65	39	35
400,000	67	45	36	134	89	67	45	36	100	67	40	36
410,000	69	46	37	137	92	69	46	37	103	69	41	37
420,000	70	47	38	140	94	70	47	38	105	70	42	38
430,000	72	48	39	144	96	72	48	39	108	72	43	39
440,000	74	49	40	147	98	74	49	40	110	74	44	40
450,000	75	50	40	150	100	75	50	40	113	75	45	40
460,000	77	52	41	154	103	77	52	41	115	77	46	41
470,000	79	53	42	157	105	79	53	42	118	79	47	42
480,000	80	54	43	160	107	80	54	43	120	80	48	43
490,000	82	55	44	164	109	82	55	44	123	82	49	44
500,000	84	56	45	167	112	84	56	45	125	84	50	45

For SI units, 1 ft^2 = 0.0929 m^2.

Public Comment No. 81-NFPA 10-2020 [Section No. H.2]

H.2 Health and Safety Conditions That Affect Selection.

When a fire extinguisher is being selected, consideration should be given to the health and safety hazards involved in its maintenance and use, as described in the following items:

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

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

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

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

(5) When used in a small unventilated area, dry chemical fire extinguishers can reduce visibility for a period of up to several minutes. ~~Dry chemical discharged in an area can also clog filters in air-cleaning systems.~~ ***'The discharge of a powder extinguisher within buildings can cause a sudden reduction of visibility and can also impair breathing, which could temporarily jeopardize escape, rescue or other emergency action. For this reason, powder extinguishers should generally not be specified for use indoors, unless mitigated by a health and safety risk assessment'.***

(6) A dry chemical fire extinguisher containing ammonium compounds should not be used on oxidizers that contain chlorine. The reaction between the oxidizer and the ammonium salts can produce the explosive compound nitrogen trichloride (NCl_3).

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

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

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

Table H.2 Characteristics of Extinguishers

Extinguishing Agent	Method of Operation	Capacity	Horizontal Range of Stream	Approximate Time of Discharge	Protection Required Below 40°F (4°C)	UL or ULC Classifications[a]
Water	Stored-pressure	1 ⅜ gal (6 L)	30–40 ft (9.1–12.2 m)	40 sec	Yes	1-A
	-	Stored-pressure or pump	2 ½ gal (9.5 L)	30–40 ft (9.1–12.2 m)	1 min	Yes
	-	Pump	4 gal (15.1 L)	30–40 ft (9.1–12.2 m)	2 min	Yes

Extinguishing Agent	Method of Operation	Capacity	Horizontal Range of Stream	Approximate Time of Discharge	Protection Required Below 40°F (4°C)	UL or ULC Classifications[a]
	-	Pump	5 gal (19.0 L)	30–40 ft (9.1–12.2 m)	2–3 min	Yes
Water (wetting agent)	Stored-pressure	1 ½ gal (5.7 L)	20 ft (6.1 m)	30 sec	Yes	2-A
	-	Stored-pressure	25 gal (95 L) (wheeled)	35 ft (10.7 m)	1 ½ min	Yes
	-	Stored-pressure	45 gal (170 L) (wheeled)	35 ft (10.7 m)	2 min	Yes
	-	Stored-pressure	60 gal (227 L) (wheeled)	35 ft (10.7 m)	2 ½ min	Yes
Loaded stream	Stored-pressure	2 ½ gal (9.5 L)	30–40 ft (9.1–12.2 m)	1 min	No	2-A
	-	Stored-pressure	33 gal (125 L) (wheeled)	50 ft (15.2 m)	3 min	No
Water mist	Stored-pressure	1.8–2.5 gal (6.8–9.5 L)	5–12 ft (1.5–3.7 m)	50–80 sec	Yes	2-A:C
AFFF, FFFP	Stored-pressure	2 ½ gal (9.5 L)	20–25 ft (6.1–7.6 m)	50 sec	Yes	3-A:20 to 40-B
	-	Stored-pressure	1 ⅜ gal (6 L)	20–25 ft (6.1–7.6 m)	50 sec	Yes
	-	Nitrogen cylinder	33 gal (125 L)	30 ft (9.1 m)	1 min	Yes
Carbon dioxide[b]	Self-expelling	2 ½ –5 lb (9.5 L)	3–8 ft (0.9–2.4 m)	8–30 sec	No	1 to 5-B:C
	-	Self-expelling	10–15 lb (4.5–6.8 kg)	3–8 ft (0.9–2.4 m)	8–30 sec	No
	-	Self-expelling	20 lb (9 kg)	3–8 ft (0.9–2.4 m)	10–30 sec	No
	-	Self-expelling	50–100 lb (23–45 kg) (wheeled)	3–10 ft (0.9–3 m)	10–30 sec	No
Regular dry chemical (sodium bicarbonate)	Stored-pressure	1–2 ½ lb (0.45–1.1 kg)	5–8 ft (1.5–2.4 m)	8–12 sec	No	2 to 10-B:C
	-	Cartridge or stored-pressure	2 ¾–5 lb (1.2–2.3 kg)	5–20 ft (1.5–6.1 m)	8–25 sec	No
	-	Cartridge or stored-pressure	6–30 lb (2.7–13 kg)	5–20 ft (1.5–6.1 m)	10–25 sec	No

Extinguishing Agent	Method of Operation	Capacity	Horizontal Range of Stream	Approximate Time of Discharge	Protection Required Below 40°F (4°C)	UL or ULC Classifications[a]
	-	Stored-pressure	50 lb (23 kg) (wheeled)	20 ft (6.1 m)	35 sec	No
	-	Nitrogen cylinder or stored-pressure	75–350 lb (34–159 kg) (wheeled)	15–45 ft (4.6–13.7 m)	20–105 sec	No
Purple K dry chemical (potassium bicarbonate)	Cartridge or stored-pressure	2–5 lb (0.9–2.3 kg)	5–12 ft (1.5–3.7 m)	8–10 sec	No	5 to 30-B:C
	-	Cartridge or stored-pressure	5 ½–10 lb (2.5–4.5 kg)	5–20 ft (1.5–6.1 m)	8–20 sec	No
	-	Cartridge or stored-pressure	16–30 lb (7.3–14 kg)	10–20 ft (3–6.1 m)	8–25 sec	No
	-	Cartridge or stored-pressure	48–50 lb (22–23 kg) (wheeled)	20 ft (6.1 m)	30–35 sec	No
	-	Nitrogen cylinder or stored-pressure	125–315 lb (57–143 kg) (wheeled)	15–45 ft (4.6–14 m)	30–80 sec	No
Multipurpose/ABC dry chemical (ammonium phosphate)	Stored-pressure	1–5 lb (0.5–2.3 kg)	5–12 ft (1.5–3.7 m)	8–10 sec	No	1 to 3-A[c] and 2 to 10-B:C
	-	Stored-pressure or cartridge	2 ½–9 lb (1.1–4.1 kg)	5–12 ft (1.5–3.7 m)	8–15 sec	No
	-	Stored-pressure or cartridge	9–17 lb (4.1–7.7 kg)	5–20 ft (1.5–6.1 m)	10–25 sec	No
	-	Stored-pressure or cartridge	17–30 lb (7.7–14 kg)	5–20 ft (1.5–6.1 m)	10–25 sec	No
	-	Stored-pressure or cartridge	45–50 lb (20–22.7 kg) (wheeled)	20 ft (6.1 m)	25–35 sec	No
	-	Nitrogen cylinder or stored-pressure	125–350 lb (57–159 kg) (wheeled)	15–45 ft (4.6–14 m)	30–60 sec	No

Extinguishing Agent	Method of Operation	Capacity	Horizontal Range of Stream	Approximate Time of Discharge	Protection Required Below 40°F (4°C)	UL or ULC Classifications[a]
Dry chemical (foam compatible)	Cartridge or stored-pressure	4 ¾–9 lb (2.1–4.1 kg)	5–20 ft (4.6–14 m)	8–10 sec	No	10 to 20-B:C
	-	Cartridge or stored-pressure	9–27 lb (4.1–12 kg)	5–20 ft (4.6–14 m)	10–25 sec	No
	-	Cartridge or stored-pressure	18–30 lb (8.2–14 kg)	5–20 ft (4.6–14 m)	10–25 sec	No
	-	Nitrogen cylinder or stored-pressure	150–350 lb (68–159 kg) (wheeled)	15–45 ft (4.6–14 m)	20–150 sec	No
Wet chemical	Stored-pressure	⅘ gal (3 L)	8–12 ft (2.4–3.7 m)	30 sec	No	K
	-	Stored-pressure	1 ⅗ gal (6 L)	8–12 ft (2.4–3.7 m)	35–45 sec	No
	-	Stored-pressure	2 ½ gal (9.5 L)	8–12 ft (2.4–3.7 m)	75–85 sec	No
Halon 1211 (bromochloro-difluoromethane)	Stored-pressure	0.9–2 lb (0.4–0.9 kg)	6–10 ft (1.8–3 m)	8–10 sec	No	1 to 2-B:C
	Stored-pressure	2–3 lb (0.9–1.4 kg)	6–10 ft (1.8–3 m)	8–10 sec	No	5-B:C
	-	Stored-pressure	5 ½–9 lb (2.5–4.1 kg)	9–15 ft (2.7–4.6 m)	8–15 sec	No
	-	Stored-pressure	13–22 lb (6–10 kg)	14–16 ft (4.3–4.9 m)	10–18 sec	No
	-	Stored-pressure	50 lb (23 kg)	35 ft (11 m)	30 sec	No
	-	Stored-pressure	150 lb (68 kg) (wheeled)	20–35 ft (6.1–11 m)	30–44 sec	No
Halon 1211/1301 (bromochloro-difluoromethane bromotrifluoro-methane) mixtures	Stored-pressure or self-expelling	0.9–5 lb (0.41–2.3 kg)	3–12 ft (0.9–3.7 m)	8–10 sec	No	1 to 10-B:C
	Stored-pressure	9–20 lb (4.1–9 kg)	10–18 ft (3.0–5.5 m)	10–22 sec	No	1-A:10-B:C to 4-A:80-B:C
Halocarbon type	Stored-pressure	1.4–150 lb (0.6–68 kg)	6–35 ft (1.8–10.7 m)	9–38 sec	No	1-B:C to 10-A:120-B:C

Note: Halon should be used only where its unique properties are deemed necessary.

[a]Readers concerned with specific ratings should review the pertinent lists issued by these laboratories: Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, or Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON, M1R 3B4, Canada.

[b]Carbon dioxide extinguishers with metal horns do not carry a C classification.

[c]Some small extinguishers containing ammonium phosphate–based dry chemical do not carry an A classification.

Statement of Problem and Substantiation for Public Comment

H.2 currently only refers to the reduction in visibility associated with dry powder use. It does not make clear that air borne dry powder in enclosed spaces is an asphyxiant and can cause breathing difficulties and could impact escape. We feel that NFPA should expressly state ALL problems associated with dry powder use indoors so the public and specifiers can consider the suitability of dry powder for indoor use applications, especially where members of the public and persons with disabilities are present. Such problems have been referred to in British Standards 5306-8:2012 Fire extinguishing installations and equipment on premises. Part 8: Selection and positioning of portable fire extinguishers – Code of practice since the 2012 edition and are widely understood and recognised by all fire safety professionals across the US and beyond. Subsequently we feel the problems associated with dry powder use i..e breathing difficulties and its suitability for indoor use merits being referenced in section H.2.

Related Item

• Public Input (PI) tied to existing definition, H.2

Submitter Information Verification

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Zip:
Submittal Date: Thu Apr 30 13:34:07 EDT 2020
Committee: PFE-AAA

Committee Statement

Committee Action: Rejected

Resolution: The public comment constitutes new material (no related first draft item). The current language adequately addresses dry chemical extinguishers. The proposed language is not widely accepted. Dry chemical extinguishers are most commonly installed indoors.